UNITED STATES CIRCUIT COURT OF APPEALS

FOR THE NINTH CIRCUIT

THE SOUTHERN PACIFIC COMPANY, a Corporation,
THE SOUTHERN PACIFIC RAILROAD COMPANY, a Corporation,
HOMER S. KING, Trustee, JAMES K. WILSON, Trustee,
THE CENTRAL TRUST COMPANY OF NEW YORK, a Corporation,
THE EQUITABLE TRUST COMPANY OF NEW YORK, a Corporation,
THE KERN TRADING & OIL COMPANY, a Corporation,

Appellants,

vs,

THE UNITED STATES OF AMERICA,

Appellee.

TRANSCRIPT OF RECORD

ON APPEAL FROM THE DISTRICT COURT OF THE UNITED STATES OF AMERICA,

IN AND FOR THE SOUTHERN DISTRICT OF CALIFORNIA, NORTHERN DIVISION.

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[3A]

CITATION ON APPEAL

In the District Court of the United States for the Ninth Circuit, Southern District of California, Northern Division.

UNITED STATES OF AMERICA,
Plaintiff,

vs.

THE SOUTHERN PACIFIC COMPANY,
(a Corporation)
THE SOUTHERN PACIFIC RAILROAD COMPANY, (a Corporation),
HOMER S. KING, (Trustee),
JAMES K. WILSON, (Trustee),
THE CENTRAL TRUST COMPANY OF NEW YORK, (a Corporation)
THE EQUITABLE TRUST COMPANY OF NEW YORK, (a Corporation),
THE KERN TRADING & OIL COMPANY,
(a Corporation),
Defendants.

United States of America, to the United States of America, Greeting:

You are hereby cited and admonished to be and appear in the United States Circuit Court of Appeals for the Ninth Circuit, to be held at San Francisco, State of California, within thirty days from the date of this citation pursuant to an order allowing an appeal to the defendants filed and entered in the clerk's office of the District Court of the United States for the Southern District of California, Northern Division,

from a final decree signed, filed and entered upon the ninth day of August, nineteen hundred and fifteen, in that certain suit in equity, being Number Two Hundred and Twenty-One, wherein the United States is plaintiff, and is appellee herein, and the Southern Pacific Company, The Southern Pacific Railroad Company, Homer S. King, Trustee, James K. Wilson, Trustee, The Central Trust Company of New York, The Equitable Trust Company of New York, [5A] and the Kern Trading and Oil Company are defendants and are appellants herein, to show cause, if any there be, why the decree rendered against said defendants, appellants herein as in said order allowing said appeal should not be corrected, and why justice should not be done to the parties in that behalf.

Witness the Honorable

ERSKINE M. ROSS,

United States Circuit Judge for the Ninth Circuit, this 29th day of January, 1916.

ERSKINE M. ROSS,

Circuit Judge and Judge of the United States Circuit Court of Appeals for the Ninth Circuit. [6A]

[Endorsed]: Orig. No. C. C. 221. In the District Court of the United States for the Ninth Circuit Southern District of California, Northern Division. United States, Plaintiff, vs. Southern Pacific Company, et al., Defendants. Citation. Filed Feb. 4, 1916, Wm. M. Van Dyke, Clerk, By R. S. Zimmerman, Deputy Clerk. Guy V. Shoup, Charles R. Lewers, Joseph H. Call, Of Solicitors for Defendants. Received copy of the within this 31st day of Jan. 1916. Albert Schoonover, U. S. Atty., Robert O'Connor, Assistant. [7A]

Names and Addresses of Attorneys

For Appellants:

(The Southern Pacific Company, The Southern Pacific Railroad Company, Homer S. King, Trustee James K. Wilson, Trustee, The Central Trust Company of New York, and the Kern Trading & Oil Company.)

GUY V. SHOUP, ESQ., Flood Building, San Francisco, California,

JOSEPH H. CALL, ESQ., 910-914 Union Oil Building, Los Angeles, California,

CHARLES R. LEWERS, ESQ., Flood Building, San Francisco, California.

For Appellant:

(The Equitable Trust Company of New York)

JAS. W. McKINLEY, ESQ., 706 Security Building, Los Angeles, California.

For Appellee:

(The United States of America)

ALBERT SCHOONOVER, ESQ., United States Attorney, Los Angeles, California,

F. P. HOBGOOD, ESQ., Special Assistant to the U. S. Attorney General, 214 Post Office Building, San Francisco, California. [4A]

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IN THE DISTRICT COURT OF THE UNITED STATES OF AMERICA, IN AND FOR THE SOUTHERN DISTRICT OF CALIFORNIA,

NORTHERN DIVISION.

THE UNITED STATES OF AMERICA,

Plaintiff,

vs.

THE SOUTHERN PACIFIC COMPANY, a corporation,

THE SOUTHERN PACIFIC RAILROAD COMPANY, a corporation,

HOMER S. KING, Trustee, JAMES K. WILSON, Trustee,

THE CENTRAL TRUST COMPANY OF NEW YORK, a corporation,

THE EQUITABLE TRUST COMPANY OF NEW YORK, a corporation,

THE KERN TRADING & OIL COMPANY, a corporation,

Defendants.

C. C.
No. 221. [8A]

IN THE CIRCUIT COURT OF THE UNITED STATES FOR THE NINTH CIRCUIT, SOUTHERN DISTRICT OF CALIFORNIA, NORTHERN DIVISION.

UNITED STATES OF AMERICA,
Plaintiff,

vs.

The Southern Pacific Company, a corporation, The Southern Pacific Railroad Company, a corporation, Homer S. King, Trustee, James K. Wilson, Trustee, The Central Trust Company of New York, a corporation, The Equitable Trust Company of New York, a corporation, and the Kern Trading and Oil Company, a corporation,

IN EQUITY No. 221

Defendants.

To The Judges of the Circuit Court of The United States For the Ninth Circuit, Sitting Within and For the Southern District of California.

The United States of America, by The Attorney General, brings this bill of complaint against The Southern Pacific Company, a corporation, The Southern Pacific Railroad Company, a corporation, Homer S. King, Trustee, James K. Wilson, Trustee, The Central Trust Company of New York, a corporation, The Equitable Trust Company of New York, a cor-

poration, and The Kern Trading and Oil Company, a corporation, and thereupon [9A] complains and shows unto your Honors:

I.

The defendant, The Southern Pacific Company, is a corporation organized and existing under and by virtue of the laws of the State of Kentucky and a citizen and resident of said last named State.

The defendant, The Southern Pacific Railroad Company, is a corporation organized and existing under and by virtue of the laws of the State of California and a citizen and resident of said last named State.

The defendants, Homer S. King and James K. Wilson are residents and citizens of the city of San Francisco in the State of California and are now the surviving trustees under a certain trust deed executed by the defendant, The Southern Pacific Railroad Company, bearing date April 1, 1875, and purporting to secure the payment of $46,000,000 of the corporate bonds of said Southern Pacific Railroad Company, and which said trust deed is now claimed to be a lien upon the lands involved in this suit.

The defendant, The Central Trust Company of New York, is a corporation organized and existing under and by virtue of the laws of the State of New York, and is a resident and citizen of the said last named state; and said Central Trust Company of New York is sole trustee, under a certain deed of trust executed by the defendant, The Southern Pacific Railroad Company, and the defendant, The Southern

Pacific Company, to said Central Trust Company of New York, as Trustee, bearing date September 15, 1893, purporting to secure the payment of $58,000,000 of the corporate bonds issued and to be issued by said Southern Pacific Railroad Company, and is also sole trustee under a certain supplemental trust deed executed by said Southern [10A] Pacific Railroad Company, and said Southern Pacific Company to said Central Trust Company of New York, bearing date August 18, 1898, amending said trust deed bearing date September 15, 1893, in certain particulars, and among other things, in that it restricted the amount of bonds authorized to be issued thereunder to the sum of $30,000,000; and which said trust deeds, bearing date September 15, 1893, and August 18, 1898, respectively, are now claimed to constitute liens upon the lands involved in this suit.

The defendant, The Equitable Trust Company of New York, is a corporation organized and existing under and by virtue of the laws of the State of New York, and is a resident and citizen of said last named State. Said Equitable Trust Company is sole trustee under a certain deed of trust executed by the defendant, The Southern Pacific Railroad Company, to said Equitable Trust Company of New York as Trustee, bearing date January 3, 1905, purporting to secure the payment of $88,502,000 of refunding bonds issued and to be issued by said Southern Pacific Railroad Company, and which said deed of trust is now claimed to constitute a lien upon the lands involved in this suit.

The defendant, The Kern Trading and Oil Company, is a corporation, organized and existing under and by virtue of the laws of the State of California, and is a resident and citizen of said last named State.

II.

By Act of Congress approved July 27, 1866, The Congress of the United States made a grant of certain lands, privileges, and franchises, to aid in the construction of certain railroads mentioned in said Act of Congress. Sections 3, 4 and 18, of said Act of Congress are in words and figures as follows: **[11A]**

SEC. 3. **And be it further enacted,** That there be, and hereby is, granted to the Atlantic and Pacific Railroad Company, its successors and assigns, for the purpose of aiding in the construction of said railroad and telegraph line to the Pacific Coast, and to secure the safe and speedy transportation of the mails, troops, munitions of war, and public stores, over the route of said line of railway and its branches, every alternate section of public land, not mineral, designated by odd numbers, to the amount of twenty alternate sections per mile, on each side of said railroad line, as said company may adopt, through the Territories of the United States, and ten alternate sections of land per mile on each side of said railroad whenever it passes through any State, and whenever, on the line thereof, the United States have full title, not reserved, sold, granted, or otherwise appropriated, and free from pre-emption or other claims or rights at the time the line of said road is designated by a

plat thereof, filed in the office of the Commissioner of the General Land Office; and whenever, prior to said time, any of said sections or parts of sections shall have been granted, sold, reserved, occupied by homestead settlers, or pre-empted, or otherwise disposed of, other lands shall be selected by said company in lieu thereof, under the direction of the Secretary of the Interior, in alternate sections, and designated by odd numbers, not more than ten miles beyond the limits of said alternate sections, and not including the reserved numbers: **Provided,** That if said route shall be found upon the line of any other railroad route, to aid in the construction of which lands have been heretofore granted by the United States, as far as the routes are upon the same general line, the amount of land heretofore granted shall be deducted from the amount granted by this act: **Provided further,** That the railroad company receiving the previous grant of land may assign their [12A] interest to said "Atlantic and Pacific Railroad Company," or may consolidate, confederate, and associate with said company upon the terms named in the first and seventeenth sections of this act: **Provided further,** That all mineral lands be, and the same are hereby, excluded from the operations of this act, and in lieu thereof a like quantity of unoccupied and unappropriated agricultural lands in odd-numbered sections nearest to the line of said road, and within twenty miles thereof, may be selected as above provided: **And provided further,** That the word "min-

eral," when it occurs in this act, shall not be held to include iron or coal: **And provided further,** That no money shall be drawn from the Treasury of the United States to aid in the construction of the said "Atlantic and Pacific Railroad."

SEC. 4. **And be it further enacted,** That whenever said Atlantic and Pacific Railroad Company shall have twenty-five consecutive miles of any portion of said railroad and telegraph line ready for the service contemplated, the President of the United States shall appoint three commissioners to examine the same, who shall be paid a reasonable compensation for their services by the company, to be determined by the Secretary of the Interior; and if it shall appear that twenty-five consecutive miles of said road and telegraph line have been completed in a good, substantial and workmanlike manner, as in all other respects required by this act, the Commissioners shall so report under oath, to the President of the United States, and patents of lands, as aforesaid, shall be issued to said company, confirming to said company the right and title to said lands situated opposite to and coterminous with said completed section of said road. And from time to time, whenever twenty-five additional consecutive miles shall have been constructed, completed, and in readiness as aforesaid, and verified by said commissioners to the President of the United States, then patents shall be issued [13A] to said company conveying the additional sections of land as aforesaid, and so on as fast as every twenty-five miles of said road is completed as aforesaid.

SEC. 18. **And be it further enacted,** That the Southern Pacific Railroad, a company incorporated under the laws of the State of California, is hereby authorized to connect with the said Atlantic and Pacific Railroad, formed under this act, at such point, near the boundary line of the State of California, as they shall deem most suitable for a railroad line to San Francisco, and shall have a uniform gauge and rate of freight or fare with said road; and in consideration thereof, to aid in its construction, shall have similar grants of land, subject to all the conditions and limitations herein provided, and shall be required to construct its road on the like regulations, as to time and manner, with the Atlantic and Pacific Railroad herein provided for."

III.

Thereafter and by a certain Joint Resolution of Congress, approved June 28, 1870, the Congress of the United States did provide as follows:

"BE IT RESOLVED BY THE SENATE AND THE HOUSE OF REPRESENTATIVES OF THE UNITED STATES OF AMERICA IN CONGRESS ASSEMBLED: That the Southern Pacific Railroad Company of California may construct its road and telegraph line, as near as may be, on the route indicated by the map filed by said Company in the Department of Interior on the third day of January, eighteen hundred and sixty-seven; and upon the construction of each section of said road, in the manner and within the time provided by law, and notice thereof being given by the Company to the Secretary

of the Interior, he shall direct an examination of each such section by Commissioners to be appointed by the President, as provided in the Act, making a grant of said Company, [14A] approved July twenty-seventh, eighteen hundred and sixty-six, and upon the report of the Commissioners to the Secretary of the Interior that such section of said railroad and telegraphic line has been constructed as required by law, it shall be the duty of said Secretary of the Interior to cause patents to be issued to said Company for the sections of land coterminous to each constructed Section reported on as aforesaid, to the extent and amount granted to said Company by the said Act of July twenty-seventh, eighteen hundred and sixty-six, expressly saving and reserving all the rights of actual settlers, together with the other conditions and restrictions provided for in the third section of said Act."

IV.

On or about the 10th day of March, 1901, such proceedings were had and taken that the defendant, The Southern Pacific Railroad Company, then and thereafter assumed to be the successor of the original Southern Pacific Railroad Company mentioned in Section 18 of said Act of Congress approved July 27, 1866, and in said Joint Resolution of Congress approved June 28, 1870, and as such successor, has ever since said 10th day of March, 1901, assumed to exercise and enjoy all of the rights, privileges and benefits granted to said original Southern Pacific Railroad Company by said Act of Congress approved

July 27, 1866, and said Joint Resolution of Congress approved June 28, 1870.

V.

On or about August 31, 1904, the defendant, The Southern Pacific Railroad Company, in the manner required by law, made application for a patent from the United States of America for certain lands claimed to have inured to the benefit of said Southern Pacific Railroad Company under said Act of Congress approved July 27, 1866, and said Joint resolution approved June 28, 1870, as the successor of the original grantee as aforesaid. [15A]. And in that behalf said Southern Pacific Railroad Company did file and cause to be filed in Plaintiff's land Office, at Visalia in the State of California, the district in which all of the lands claimed as aforesaid, were and are situated, an application for said patent, together with a list of the lands claimed as aforesaid, supported by certain affidavits and other documents, in form as required by law and prescribed by the regulations of the plaintiff touching the procedure applicable thereto. Said list of lands claimed as aforesaid included all of the lands described in that certain patent hereinafter particularly mentioned and described, to-wit: All of the following tracts of lands situated in Township thirty south of base line and Range Twenty-three East of Mount Diablo Meridian, in the State of California, to-wit: All of Section fifteen, containing six hundred forty acres; Lots numbered one, two, three, four, five, six, seven, eight, nine, ten, eleven and twelve of Section Seventeen, containing four

hundred sixty-four acres and forty-nine hundredths of an acre; the lots numbered three, four, five, six, seven, eight, nine, ten, eleven, twelve, thirteen and fourteen of Section nineteen, containing four hundred seventy-one acres and thirty-six hundredths of an acre; all of Section twenty-one, containing six hundred forty acres; all of Section 23, containing 640 acres, the lots numbered one, two, three, four, five, six, seven, eight, nine, ten, eleven and twelve and the West half of Section twenty-five, containing six hundred ninety-three acres and thirty-two hundredths of an acres; all of Section 27, containing six hundred forty acres; all of Section Twenty-nine, containing six hundred forty acres; all of Section thirty-three, containing six hundred forty acres; all of Section thirty-five, containing six hundred forty acres. **[16A]**

VI.

All of the lands last herein described, and claimed by said defendant, The Southern Pacific Railroad Company, as aforesaid, were, and are, mineral lands and because thereof were, and are, by the terms of said Act of Congress approved July 27, 1866, and said Joint Resolution of Congress approved June 28, 1870, excepted and excluded from the operation of said grant, all of which facts were well known to said defendant, The Southern Pacific Railroad Company and its officers and agents at and prior to the time of the application for patent for said lands as aforesaid.

But designing and intending to cheat and defraud the plaintiff of all of said mineral lands, the said Southern Pacific Railroad Company did falsely,

fraudulently, dishonestly and unlawfully include said mineral lands in the list of lands claimed under the terms of said grant as aforesaid; and did falsely, fraudulently, dishonestly and unlawfully conceal from the plaintiff and the plaintiff's officers having authority in the premises, the mineral character of said lands; and in and by said application for patent did falsely, fraudulently, dishonestly and unlawfully represent that all of said lands, and particularly said lands last hereinbefore described, were non-mineral in character, and were of the character contemplated by the aforesaid grant; and for the purpose of deceiving, and defrauding the plaintiff, as aforesaid, said application for patent was supported by a certain affidavit signed and sworn to by one Charles W. Eberline, as the Acting Land Agent of the said Southern Pacific Railroad Company, (said Charles W. Eberline being then and there duly authorized to represent and act for said Southern Pacific Railroad Company in the premises), in and by which said affidavit it was falsely, fraudulently, dishonestly and unlawfully stated and sworn, among other things, [17A] that the said lands claimed as aforesaid including the lands hereinbefore particularly described, were not interdicted mineral lands and were of the character contemplated by the aforesaid grant, which said statement was false in this, that all of said lands contained rich and valuable deposits of minerals, and were, and are, mineral lands, and none of said lands were of the character contemplated by the aforesaid grant, but on the contrary, all of said lands were by

the terms of said grant expressly excluded and excepted from the operation thereof, all of which facts were then and there and theretofore well known to the said Southern Pacific Railroad Company and the said Charles W. Eberline; all of which said false statements and representations were made for the purpose of deceiving the plaintiff and the plaintiff's said officers having authority in the premises, and inducing the issuance of a patent for said lands fraudulently and unlawfully claimed by said defendant, the Southern Pacific Railroad Company, as aforesaid.

Plaintiff's said officials were deceived by the aforesaid false statements and representations and were induced to and did believe and rely upon said false and fraudulent statements and representations; and acting upon the belief that all of said statements and representations were true, induced by and on behalf of the said defendant, The Southern Pacific Railroad Company, as aforesaid, plaintiff's said officers were induced to and did cause to be issued the plaintiff's patent for said lands which said patent bears date March 1, 1909. **[18A]**

VII.

By the aforesaid false and fraudulent statements and representations, made by and on behalf of said defendant, The Southern Pacific Railroad Company, as aforesaid, PLAINTIFF'S said officials were induced to and did omit to make any examination, investigation or inquiry whereby the true facts in the premises might have been discovered; and omitted to in any manner adjudicate or determine

whether any of said lands were in fact mineral or non-mineral in character, or were in fact of the character contemplated by the aforesaid grant, but said patent was issued in reliance upon the aforesaid false, and fraudulent statements and representations made by and on behalf of said Southern Pacific Railroad Company, as aforesaid; and through inadvertence and mistake PLAINTIFF'S said officials did omit to insert in said patent, any clause or provision excepting or excluding from the operation thereof mineral lands in compliance with the provisions of said Act of Congress approved July 27, 1866, and said Joint Resolution of Congress approved June 28, 1870.

VIII.

The defendant, The Southern Pacific Company, is a holding corporation organized under and by virtue of the laws of the State of Kentucky, as aforesaid, for the purpose of controlling, and operating that certain syndicate of railroads known as the Southern Pacific System, including the railroad franchises and other property of the defendant, the Southern Pacific Railroad Company. By stock ownership and otherwise the defendant, The Southern Pacific Railroad Company now is, and ever since the year 1887, has been, owned, dominated and controlled by said defendant, The Southern Pacific Company.

Further designing, and intending to defraud the plaintiff [19A] and to conceal the aforesaid frauds practiced upon the plaintiff, as aforesaid, and for the further purpose of securing to said defendant,

The Southern Pacific Railroad Company, and said defendant, The Southern Pacific Company, the benefit of certain mineral lands fraudulently and unlawfully claimed by said defendant, The Southern Pacific Railroad Company, as aforesaid, including those certain lands hereinbefore particularly described, the defendant, The Kern Trading and Oil Company was organized under and by virtue of the laws of the State of California as a mere dummy corporation, for the benefit and use of said defendant, The Southern Pacific Railroad Company, and said defendant, The Southern Pacific Company. And in that behalf some secret agreement, in the nature of a mineral lease or otherwise (the exact particulars concerning which is to the PLAINTIFF unknown) has been entered into by or in the name of said defendant, The Southern Pacific Railroad Company, and said defendant, The Kern Trading and Oil Company, by virtue of which some pretended right, title or interest now is or will be asserted by and in the name of said defendant, The Kern Trading and Oil Company, in and to said lands hereinbefore particularly described. The PLAINTIFF leaves said defendants to set forth the nature and extent of said pretended right, title and interest, but in that behalf states that said defendant, The Kern Trading and Oil Company, has no right, title, interest, claim or lien whatsoever in, to or upon any of said lands, and particularly as against the rights, equities and remedies of the PLAINTIFF in the premises. [20A]

IX.

The aforesaid lands hereinbefore particularly described aggregate approximately sixty-one hundred nine and seventeen hundredths of an acre, and are of a value exceeding ten millions of dollars. None of said lands have ever been reduced to possession or in any manner improved. But the PLAINTIFF is informed and believes, and therefore avers, that the defendants and each of them and particularly said defendant, The Southern Pacific Company, said defendant, The Southern Pacific Railroad Company, and said defendant, The Kern Trading and Oil Company, threaten to, and will, unless restrained therefrom, enter upon and take possession of said lands, and extract minerals therefrom, and particularly the deposits of oil and petroleum therein contained, and will otherwise commit waste and trespass thereupon, to the irreparable injury of the PLAINTIFF in the premises.

X.

The defendants and each of them assert some right, title, interest or lien into or upon said lands hereinbefore particularly described or some part thereof under and by virtue of said patent issued, as aforesaid, in addition to the several claims herein specifically set forth. The PLAINTIFF is not informed as to the exact nature and extent of any of said claims asserted, as aforesaid, and therefore leaves each of said defendants to set forth and disclose their respective claims as they may be advised. But, nevertheless, PLAINTIFF avers that whatever

right, title, interest or lien the defendants or each of them assert or claim in, to or upon said lands, or any part thereof, was acquired with full knowledge of the said Act of Congress approved July 27, 1866, and of said Joint Resolution of Congress approved June 28, 1870, and with full knowledge and notice of the fraud so as aforesaid perpetrated upon the PLAINTIFF and that such alleged rights, titles, interests or liens **[21A]** are, and each of them is without right and void and should be so in equity decreed in favor of the PLAINTIFF and that the same should be **voided** by decree of this Honorable Court.

In consideration whereof, and for as much as the plaintiff is without full or adequate remedy in the premises save in a court of equity, and to the end that the defendants, The Southern Pacific Company, The Southern Pacific Railroad Company, Homer S. King, James K. Wilson, The Central Trust Company of New York, The Equitable Trust Company of New York, and the Kern Trading and Oil Company, may make full, true and direct answer to all and singular the matters and things hereinbefore set out, as fully as if each of them had been particularly interrogated thereunto, but not under oath, an answer under oath being hereby expressly waived; and to the end that the said patent issued, as aforesaid, may be declared null and void, and be set aside, revoked and held for naught, and be surrendered by the defendants, under the court's command, for cancellation; and that all and singular the said described lands may

be adjudged and decreed to be the perfect property of the PLAINTIFF free and clear of all claims of the defendants or either or any of them; and that the defendants and each of them, during the progress of this cause, and thereafter finally and perpetually may be enjoined from setting up any claim to the said lands or any part thereof, and from creating any cloud upon the plaintiff's title thereto or any part thereof, and from digging or mining or asporting any minerals therefrom, or otherwise committing waste or damage thereto; and that the PLAINTIFF may have such other and further relief as may seem just to this Honorable Court and agreeable to equity and good conscience.

May it please your Honors to grant unto the PLAINTIFF a writ of subpoena, to be directed to the said The Southern Pacific Company, The Southern Pacific Railroad Company, Homer S. King, James K. Wilson, The Central Trust Company of New York, [22A] The Equitable Trust Company of New York, and the Kern Trading and Oil Company, thereby commanding them and each of them, at a certain time and under a certain penalty therein to be limited, to appear before this Honorable Court and then and there full, true and direct answer make to all and singular the premises, and to stand to perform and abide by such order, direction and decree as may be made against them or either or any of them in the premises as shall seem meet and agreeable to equity.

GEORGE W. WICKERSHAM,
Attorney General of the United States.

A. I. McCORMICK,
United States Attorney for the Southern District of California.

WILLIS N. MILLS,
Spcl Asst. to the Atty Gen'l. Of Counsel.

[23A]

EXHIBIT A.

The United States of America

To all to whom these presents shall come, Greeting: Whereas, by the Act of Congress approved July 27, 1866, and Joint Resolution of June 28, 1870, "to aid in the construction of a Railroad and Telegraph Line from the States of Missouri and Arkansas to the Pacific Coast," and to secure to the Government the use of the same for Postal, Military and other purposes, authority is given to the Southern Pacific Railroad Company of California, a corporation existing under the laws of said State, to construct a Railroad and Telegraph Line under certain conditions and stipulation expressed in said Act, from the City of San Francisco to a point of connection with the Atlantic and Pacific Railroad near the boundary line of said State, and provision is made for granting to the said Company, "every alternate section of public land, not mineral, designated by odd numbers, to the amount of ten alternate section per mile on each side of said railroad, on the line thereof, and within the limits of twenty miles

on each side of said road, not sold, reserved, granted, or otherwise appropriated by the United States, and free from pre-emption or other claims, or right, at the time the line of said road is definitely fixed; and

Whereas, it is further provided by said Act that "whenever prior to said time any of said sections or parts of sections shall have been granted, sold, reserved, occupied by homestead settlers or pre-emption, or otherwise disposed of, other lands shall be selected by said Company in lieu thereof under the direction of the Secretary of the Interior, in alternate sections and designated by odd numbers, not more than ten miles beyond the limits of said alternate sections and not included in the reserved numbers," and [24A]

Whereas, it has been shown by evidence filed in the Department of the Interior that the entire line of the Southern Pacific (main line) Railroad and Telegraph from San Jose to The Needles on the Colorado River, except that portion between Tres Pinos and Alcalde, which was declared forfeited by the Act of September 29, 1890, has been constructed and fully completed and equipped in the manner prescribed by said Act of July 27, 1866, and accepted; and

Whereas, it is shown by certain papers filed in the office of the Commissioner of the General Land Office by the duly authorized Attorney of the Southern Pacific Railroad Company with his letter of April 30, 1902, that said Southern Pacific Railroad Company is the successor by consolidation of the South-

ern Pacific Railroad Company of California; and

Whereas, the following tracts have been selected under the Acts aforesaid by the duly authorized land agent of the said Southern Pacific Railroad Company of California, or its successor, as shown by his original list approved by the local officers and now on file in the General Land Office; and

Whereas, the said tracts of land lie coterminous to the constructed line of said road, and are particularly described as follows, to-wit:

South of base line and **East** of **Mount Diablo Meridian, State** of **California, Township Thirty, Range Twenty-three,** All of section fifteen, containing six hundred and forty acres. The lots numbered one, two, three, four, five, six, seven, eight, nine, ten, eleven and twelve of section seventeen, containing four hundred and sixty-four acres and forty-nine hundredths of an acre. The lots numbered three, four, five, six, seven, eight, nine, ten, eleven, twelve, thirteen and fourteen, of section nineteen, containing four hundred and seventy-one acres and thirty-six hundredths of an acre. All of **[25A]** section twenty-one, containing six hundred and forty acres. All of section twenty-three, containing six hundred and forty acres. The lots numbered one, two, three, four, five, six, seven, eight, nine, ten, eleven and twelve, and the West half of section twenty-five, containing six hundred and ninety-three acres, and thirty-two hundredths of an acre. All of section twenty-seven, containing six hundred and forty acres. All of section twenty-nine, containing six

hundred and forty acres. All of section thirty-three, containing six hundred and forty acres. All of section thirty-five, containing six hundred and forty acres.

The said tracts of land as described in the foregoing make the aggregate area of six thousand one hundred and nine acres and seventeen hundredths of an acre, (6,109.17).

Now Know Ye, that the United States of America, in consideration of the premises and pursuant to the said Acts of Congress, **Have Given and Granted** and by these presents **Do Give and Grant,** unto the said **Southern Pacific Railroad Company,** successor in interest to the Southern Pacific Railroad Company of California, and to its successors and assigns, the tracts of land selected as aforesaid and described in the foregoing.

To Have and to Hold, the same together with all rights, privileges, immunities and appurtenances of whatever nature thereunto belonging unto the said **Southern Pacific Railroad Company,** and to its successors and assigns forever.

In testimony whereof, I, Theodore Roosevelt, President of the United States of America, have caused these letters to be made patent and the Seal of the General Land Office to be hereunto affixed.

[26A]

Given under my hand at the City of Washington this twelfth day of December in the year of our Lord, one thousand nine hundred and four and of the Unit-

ed States **States** the one hundred and twenty-ninth.

[Seal] T. ROOSEVELT,

By the President:

F. M. McKEAN,
Secretary.

C. H. BRUSH,
Recorder of the General Land Office.

[Endorsed]: Original No. 221. In the Circuit Court of the United States for the Sou. Dist. of California, Northern Division United States of America, Ptff., vs. The Southern Pacific Company et al., Defts., Bill of Complaint (in Equity). Geo. W. Wickersham, Attorney General; A. I. McCormick, U. S. Attorney, Solicitors for Plaintiff. Filed Dec. 10, 1910. Wm. M. Van Dyke, Clerk. By Chas. N. Williams, Deputy.

[27A]

Case No. 221.

IN THE CIRCUIT COURT OF THE UNITED STATES FOR THE NINTH CIRCUIT, SOUTHERN DISTRICT OF CALIFORNIA, NORTHERN DIVISION.

UNITED STATES OF AMERICA, Plaintiff,

vs.

SOUTHERN PACIFIC COMPANY, et al.,
Defendants.

IN EQUITY.

Joint and Several Answer of all Defendants other than the Equitable Trust Company of New York.

The defendants, Southern Pacific Company, Southern Pacific Railroad Company, Homer S. King,

James K. Wilson, Trustees, Central Trust Company of New York, and Kern Trading and Oil Company, jointly and severally, now and at all times saving unto themselves all and all manner of benefit and advantage of exception, or otherwise, that can or may be had or taken to the many errors, uncertainties and imperfections in the said Bill of Complaint (hereinafter referred to as "the Bill") contained, make the following Joint and Several Answer thereto, or to so much and such parts thereof as they are advised it is material or necessary for them or any of them to make answer to.

I.

It is true, as alleged in the Bill, that the defendant Southern Pacific Company, is a corporation, organized and existing under and by virtue of the laws of the State of Kentucky, and a citizen and resident of that State. **[28A]**

The defendant Southern Pacific Railroad Company is a corporation organized and existing under the laws of the State of California and Territories of Arizona and New Mexico, and a citizen and resident of the State of California; but except as aforesaid it is not true, as stated in the Bill, that the said defendant is a corporation organized and existing under the laws of the State of California.

The defendants Homer S. King and James K. Wilson are citizens and residents of the State of California, and are the surviving Trustees under a deed of trust or mortgage, executed by the Southern Pacific Railroad Company, bearing date April 1,

1875, purporting to and which did secure the payment of $46,000,000 of the corporate bonds of said Southern Pacific Railroad Company; which trust deed or mortgage is claimed to be and is a lien upon the lands involved in this suit. But it is not true, as stated in the Bill, that the Southern Pacific Railroad Company which executed the said trust mortgage is the Southern Pacific Railroad Company defendant in this suit.

The defendant Central Trust Company of New York is a corporation organized and existing under and by virtue of the laws of the State of New York, and a citizen and resident of that State. The said Central Trust Company is sole Trustee under a trust deed or mortgage executed by the hereinbefore mentioned Southern Pacific Railroad Company and the defendant Southern Pacific Company unto it (the said Central Trust Company of New York) as Trustee, bearing date September 15th, 1893, purporting to and which did secure the payment of $58,000,000 of the corporate bonds issued and to be issued by the said Southern Pacific Railroad Company; and the said Central Trust Company of New York is also sole Trustee under a supplemental trust deed or mortgage executed by the said Southern Pacific Railroad Company and the Southern Pacific Company unto it (the said Central Trust Company of New York), bearing date August 18th, 1898, **[29A]** amending the said former trust deed or mortgage of September 15th, 1893, so as to restrict the amount of bonds authorized to be issued thereunder to $30,000,000;

which trust deeds or mortgages are claimed to, and do, constitute liens upon the lands involved in this suit. But it is not true, as stated in the Bill, that the Southern Pacific Railroad Company which executed the said trust deeds or mortgages, or either thereof, is the Southern Pacific Railroad Company defendant in this suit.

The defendant Equitable Trust Company of New York is a corporation organized and existing under and by virtue of the laws of the State of New York, and a citizen and resident of that State. The said defendant is sole Trustee under a deed of trust or mortgage executed by the defendants Southern Pacific Railroad Company and Southern Pacific Company to it (the said Equitable Trust Company of New York) as Trustee, bearing date January 3rd, 1905, purporting to and which did secure the payment of $88,502,000 of refunding bonds issued and to be issued by the defendant Southern Pacific Railroad Company; but the said trust deed or mortgage is not in fact, nor is it claimed to constitute, nor is it held to be, a lien upon the lands involved in this suit.

The defendant Kern Trading & Oil Company is a corporation organized and existing under and by virtue of the laws of the State of California, and a citizen and resident of that State.

II.

The Act of Congress approved July 27th, 1866, entitled "An Act granting lands to aid in the construction of a railroad and telegraph line from the

States of Missouri and Arkansas to the Pacific Coast," granted unto the Southern Pacific Railroad Company, referred to and named in Section 18 of the said Act as, and which was, a Railroad Company incorporated under the laws of the State of California, a grant of franchises, privileges, **[30A]** and lands including the lands involved in this suit; which Act of Congress, as published in Volume 14, United States Statutes at Large, pages 292 and following, is hereby made a part of this Answer, by reference.

These defendants ask that, by the order of this Court, all of subdivision "II" of the Bill, except the first paragraph thereof, be expunged therefrom as unnecessary haec verba recitation.

III.

By Joint Resolution of Congress, approved June 28th, 1870, entitled "Joint Resolution concerning the Southern Pacific Railroad of California," the said Southern Pacific Railroad Company, of California, was authorized to construct its railroad, provided for by the said Act of July 27th, 1866, as nearly as may be on the route indicated on the map filed by said Company in the Department of the Interior on January 3rd, 1867; which Joint Resolution, as published in Volume 16, United States Statutes at Large, pages 382 and following, is hereby made a part of this Answer, by reference.

These defendants ask that, by the order of this Court, all of subdivision "III" of the Bill except the

first paragraph thereof, be expunged therefrom as unnecessary haec verba recitation.

IV.

On or about March 10th, 1902, (not on or about March 10th, 1901, as erroneously stated in the Bill) such proceedings were duly had and taken as that the defendant Southern Pacific Railroad Company became the successor of the Southern Pacific Railroad Company mentioned in and to which the lands involved in this suit were granted by the said Act of July 27th, 1866, and Joint Resolution of June 28th, 1870, in ownership of all rights, privileges, franchises, lands and other property of the said [31A] Southern Pacific Railroad Company, including ownership of the lands involved in this suit subject to the trust deeds or mortgages hereinbefore set forth, other than the said trust deed or mortgage to the Equitable Trust Company of New York.

V.

During the year 1904, but prior to August 31st, 1904, the defendant Southern Pacific Railroad Company, as successor of the Southern Pacific Railroad Company named in Section 18 of the said Act of Congress of July 27th, 1866, made application in the manner and form required by law and the rules and regulations prescribed by the Secretary of the Interior, for a patent from the United States for the lands described in subdivision "V" of the Bill, under and in pursuance of the provisions of the said

Act of July 27th, 1866, and Joint Resolution of June 28th, 1870.

VI.

These defendants say, upon information which they believe to be true, that the true facts and particulars respecting the matters and things set forth in subdivision "VI" of the Bill, are as follows:

No land described in subdivision "V" of the Bill is, or at any time was, known to be, discovered to be, nor did it nor does it appear to be, mineral land or land containing mineral deposits in appreciable or paying quantities; and they deny that any of said land was, or is, excepted or excluded as mineral land, or otherwise, from the grant of lands made unto the said Southern Pacific Railroad Company by the Act of July 27th, 1866, and Joint Resolution of June 28th, 1870.

These defendants are informed and believe that the list of land referred to in subdivision "VI" of the Bill, was lawfully, truthfully and sincerely made and filed, for the purposes therein set forth and none other, in all respects conforming to the rules [32A] and regulations of the Interior Department governing such matters; and these defendants are informed and believe that the affidavit referred to in subdivision "VI" of the Bill as having been made by Charles W. Eberlein in support of the defendant Southern Pacific Railroad Company's said application for patent for the lands involved in this suit, was and is true and correct in all particulars, and that officials of the United States were not and

could not have been deceived or misled by any statements made in that affidavit.

These defendants further say, on information which they believe to be true, that all allegations made in subdivision "VI" of the Bill, in anywise contrary to or contradictory of the foregoing allegations of this subdivision "VI" of this Answer, are untrue and scandalous.

VII.

The true facts and particulars as to the matters and things set forth in subdivision "VII" of the Bill, are as follows:

During the month of February, 1900, the lands described in subdivision "V" of the Bill, were by the Commissioner of the General Land Office suspended from non-mineral entry, upon representations made to him that the said lands contained mineral; thereafter the said Commissioner investigated the character of said land for minerals by and through Special Agents of his Department, appointed by him for the purpose of examining and who these defendants are informed and believe did examine the said land for the purpose of ascertaining and reporting its true character for minerals contained, and who duly reported to the Commissioner that they had carefully examined the said land and found no indication that minerals of any kind existed in any of said land; whereupon, in February, 1904, the said Commissioner adopted and approved the said Special Agents' report, and declared all of the said land free

from suspension and subject [33A] to entry as agricultural land.

By order made and entered on December 10th, 1903, about one year prior to issuance of the patent referred to in subdivision "VII" of the Bill, the Secretary of Interior duly and properly adjudged that no clause excepting or reserving mineral land could be lawfully inserted in patents for railroad land-grant lands, and directed that thereafter no such clause should be inserted in any such patents; and these defendants are informed and believe that the uniform practice of the United States officers, continuously since the order of December 10th, 1903, was made, has been to issue all railroad land-grant patents free of any clause or provision excepting, excluding or reserving, mineral lands. The said judgment and order of December 10th, 1903, as published in Vol. XXXII, Decisions of the Department of the Interior, pages 342 and following, is made part of this Answer by reference.

These defendants are advised and believe that the said patent was duly and lawfully issued, in proper form, without inadvertence, or mistake; and upon information and belief they say that all allegations in subdivision "VII" of the Bill, contrary to or contradictory of the foregoing statements of this subdivision "VII" of this Answer, are erroneous and untrue.

VIII.

The defendant Southern Pacific Railroad Company is sole owner, under and in virtue of the United

States patent a copy of which is attached to the Bill, and under and in virtue of the Acts of Congress and Joint Resolution therein referred to, of all lands described in the said attached copy, subject to the lien of the trust deeds or mortgages hereinbefore set forth, other than the said trust deed or mortgage to the Equitable Trust Company of New York; and the United States has no right, title or interest whatsoever, in or to the said lands, or any part thereof. **[34A]**

The defendant Southern Pacific Company does not, nor does the defendant Kern Trading & Oil Company, own or hold any right, title or interest in or to any of the said lands; and all material allegations of subdivision "VIII" of the Bill respecting or relating to the said two defendants, are untrue.

IX.

The defendant Southern Pacific Railroad Company is the owner (subject to the liens of the aforesaid mortgages other than the Equitable Trust Company mortgage), in possession and entitled to the possession of, and entitled to extract all minerals and mineral deposits (if any there be therein or thereon) from, the lands described in subdivision "V" of the Bill; and these defendants deny that the possession of said lands, or the extraction of mineral or mineral deposits (if any there be therein or thereon) therefrom, by any or all of the defendants, would be trespass or waste as against plaintiff, or would in anywise injure or concern the plaintiff.

X.

These defendants, jointly and severally, deny all and all manner of matter, cause or thing in the said Bill contained, material or necessary for them or any of them to make answer to and not herein well and sufficiently answered, traversed, avoided or denied, is true to their knowledge or belief.

All of which matters and things these defendants are ready and willing to aver, maintain and prove, as this Court may direct; and they pray to be hence dismissed, with their reasonable costs and charges in this behalf most wrongfully sustained.

GUY V. SHOUP and D. V. COWDEN,
Attorneys for the said Defendants.

WM. SINGER, JR.,
JOLINE, LARKIN & RATHBONE,
Counsel for the said Defendants.

[35A]

State of California,
City and County of San Francisco,—ss.

G. L. King, being duly sworn, deposes and says: That he is Secretary of the Southern Pacific Railroad Company, the principal defendant to the foregoing Answer; that he has read the foregoing Answer and knows the contents thereof; that the allegations therein contained, so far as they relate to his own acts and deeds are true, and so far as they relate to the acts and deeds of others he believes them to be true; and that he has been informed as to the matters and things alleged and denied in the foregoing Answer which are not within his knowledge, and he

believes all such allegations and denials to be true.

G. S. KING.

Subscribed and sworn to before me on April 5th, 1911. E. B. RYAN,

Notary Public in and for the City and County of San Francisco, State of California.

[Seal]

[36A]

State of California,
City and County of San Francisco,—ss.

Fred Brauns, being duly sworn, deposes and says: That he is Chief Clerk in the office of Wm. Singer, Jr., Room 842 Flood Building, San Francisco, California, General Land Attorney for the defendant Southern Pacific Railroad Company, and Counsel for all defendants joined as such in the foregoing Answer; that he (affiant) this day deposited in the United States mail at San Francisco, California, a full and correct copy of the foregoing Answer, enclosed by a sealed envelope, postage prepaid, addressed as follows: "Mr. A. I. McCormick, United States Attorney, Los Angeles, California."

FRED BRAUNS.

Subscribed and sworn to before me on April 5th, 1911. E. B. RYAN,

Notary Public in and for the City and County of San Francisco, State of California.

[Seal]

[Endorsed]: No. 221. U. S. Circuit Court, Southern District of California, Northern Division, United States of America, vs. Southern Pacific Company, et al. Joint and Several Answer of all Defendants other than the Equitable Trust Company. Guy V.

Shoup and D. V. Cowden, Attorney for Defendants, Room 842, Flood Building, San Francisco. Filed April 6, 1911, Wm. M. Van Dyke, Clerk. By Chas. N. Williams, Deputy Clerk. **[37A]**

At a stated term, to wit: The January Term, A. D. 1912, of the District Court of the United States of America, in and for the Southern District of California, Northern Division, held at the court room thereof, in the city of Los Angeles, on Thursday, the twenty-eighth day of March, in the year of our Lord One Thousand Nine Hundred and Twelve:

Present: The Honorable Olin Wellborn, District Judge.

THE UNITED STATES OF AMERICA,

Complainants,

vs.

THE SOUTHERN PACIFIC COMPANY, a corporation, et al.,

Defendants.

C. C. No. 221, Northern Division.

Amended per minute order of April 10th, C. E. Scott, Deputy Clerk.

It appearing that in the opinion of the Honorable Olin Wellborn, Judge of this court, it is improper for him to sit on the trial of this cause, now in the application of A. I. McCormick, Esq., U. S. Attorney, the Court directs the United States Attorney for this District to prepare an order accordingly for entry herein and subsequent certification to the senior Circuit Judge for the Ninth Circuit, present in

the Circuit, pursuant to said Sec. 20 of the U. S. Judicial Code.

O. K. C. E. S. 3-28-12 p l **[38A]**

At a stated term, to wit: The January Term, A. D. 1912, of the District Court of the United States of America, in and for the Southern District of California, Northern Division, held at the court room thereof, in the city of Los Angeles, on Tuesday, the 9th day of April, in the year of our Lord One Thousand Nine Hundred and Twelve:

Present: The Honorable Olin Wellborn, District Judge.

THE UNITED STATES OF AMERICA,

Complainants.

vs.

THE SOUTHERN PACIFIC COMPANY, a corporation, et al.,

Defendants.

C. C. No. 221, Northern Division.

It appearing to the court that the judge thereof, through one of his relatives, is so related to the parties defendant in the above entitled suit as to render it improper, in his opinion, for him to sit on the trial thereof; and A. I. McCormick, Esq., U. S. Attorney for the Southern District of California, of counsel for complainants, having, on the 28th day of March, 1912, by an order of this court, entered on that day, been directed to prepare an order accordingly for entry herein and subsequent certification to the senior Circuit Judge for the Ninth Circuit,

present in the Circuit, pursuant to Section 20 of the United States Judicial Code;

Now, therefore, on the application of said A. I. McCormick, Esq., U. S. Attorney for this District, and of counsel for complainants, the foregoing fact is entered on the records of this court, and it is ordered that an authenticated copy hereof be forthwith certified to the senior Circuit Judge for this Circuit, present in the Circuit. **[39A]**

O. K. C. E. S. 4-9-12. p. l.

At a Special Term of the District Court of the United States, for the Southern District of California, Northern Division, held in the "Circuit Court" Room, in the Federal Building, in the City of Los Angeles, on Monday, the eighteenth day of January, in the year of our Lord One Thousand Nine Hundred and Fifteen.

Present: The Honorable Robert S. Bean, District Judge.

THE UNITED STATES OF AMERICA,
Complainants.

vs.

SOUTHERN PACIFIC COMPANY, et al.,
Defendants.

C. C. No. 221, Northern Division.

Good cause appearing therefor, it is ordered that the following order, heretofore made and filed herein, be spread in full upon the minutes of this Court, to wit:

"IN THE DISTRICT COURT OF THE UNITED STATES, IN AND FOR THE SOUTHERN DISTRICT OF CALIFORNIA, NORTHERN DIVISION.

"United States of America, Plaintiff, vs. Southern Pacific Company, et al., Defendants. No. 221 in Equity.

"In pursuance of stipulation of the parties, and order made by Honorable R. S. Bean, United States District Judge, heretofore filed herein, on the 5th day of October, 1914, fixing January 18, 1915, at Los Angeles, California, in said District, as the time and place for the hearing of final argument in, and the determination of, the above entitled matter, it appearing to me that the nature of said business requires;

IT IS HEREBY ORDERED that a special term of this Court be begun and held at Los Angeles, California, on January 18, 1915.

"Done at Fresno, California, this 18th day of November, 1914.

"Benjamin F. Bledsoe, District Judge." **[40A]**

[Endorsed]: "C. C. No. 221. United States District Court, Southern District of California, Northern Division. United States of America vs. Southern Pacific Company, et al., Order for Special Term. Filed November 18, 1914. Wm. M. Van Dyke, Clerk. By C. E. Scott, Deputy Clerk." **[41A]**

At a stated term, to wit: The Special Term of the District Court of the United States, for the Southern District of California, Northern Di-

vision, held in the "Circuit Court" Room thereof, in the City of Los Angeles, on Monday, the Eighteenth day of January, in the year of our Lord, One Thousand Nine Hundred and Fifteen.

Present: The Honorable Robert S. Bean, District Judge.

THE UNITED STATES OF AMERICA,
Complainants.

vs.

THE SOUTHERN PACIFIC COMPANY, et al.,
Defendants.

C. C. No. 221, Northern Division.

Good cause appearing therefor, it is ordered that the following stipulation and order herein be spread in full upon the minutes of this court, to wit:

"IN THE DISTRICT COURT OF THE UNITED STATES IN AND FOR THE SOUTHERN DISTRICT OF CALIFORNIA, NORTHERN DIVISION.

"United States of America, Complainant, vs. The Southern Pacific Company, et al., Defendants. In Equity No. 221.

"STIPULATION.

"WHEREAS, the Honorable Olin Wellborn, United States District Judge for the Southern District of California, wherein said cause is pending, on to wit: April 9th, 1912, caused to be entered in the records of said Court his opinion that he was disqualified to try said above entitled cause, and thereupon ordered that an authenticated copy of the said

opinion be certified to the Senior Circuit Judge of the 9th Circuit, and

"WHEREAS, the Clerk of said Court, did, on April 10, 1912, forward to the said Senior Circuit Judge a certified copy of said order of April 9th, 1912, and [42A]

"WHEREAS, the said Senior Circuit Judge for said 9th Circuit did thereupon appoint and designate Honorable Robert S. Bean, United States District Judge for the District of Oregon in said 9th Circuit, to try said cause for the reasons assigned in said opinion and order of the Honorable Olin Wellborn, and

"WHEREAS, on December 12, 1913, all of the testimony and proofs on behalf of both the plaintiff and the defendants in the above entitled cause having been put in and fully and finally completed, ready for submission by oral argument to the Court, and

"WHEREAS, on, to wit: November 5th, 1913, said above entitled cause was placed on the term trial calendar for the November Term of 1913, and

"WHEREAS, it is the desire of both the plaintiff and the defendants in said cause to argue said cause at the earliest available date, and

"WHEREAS, the said Honorable Robert S. Bean, United States District Judge in charge of the conduct of and the final determination of said cause has indicated that he will hear final arguments therein at Los Angeles, California, in one of the United States Court Rooms of the Federal Building of that city, on, to wit: Monday, the 18th day

of January, 1915, and such following days as are necessary to complete said arguments, and

"WHEREAS, the time so fixed by the Court for the arguments of counsel is satisfactory and convenient to all the parties to said cause, and it is the desire of couusel both for the plaintiff and the defendants to have said cause heard at said time and place;

"It is hereby stipulated by and between each and all of the parties to said suit, and their solicitors, that said cause be heard and determined at the time and place so fixed by the Court as aforesaid, to wit: at Los Angeles, California, on the 18th day of January, 1915. [**43A**]

"Dated this 1st day of October, 1914.

"T. W. Gregory, Attorney General of the United States.

"W. N. Mills, Special Assistant to the Attorney General.

"Solicitors for Plaintiff.

"Charles R. Lewers, Guy V. Shoup,

"Solicitors for all Defendants other than the Equitable Trust Company of New York.

"J. W. McKinley,

"Solicitor for defendant Equitable Trust Company of New York.

"It is so ordered:

"R. S. BEAN,

"United States District Judge."

[Endorsed]: "Equity No. 221. In the District Court of the United States for the Southern District

of California, Northern Division, United States of America, Complainant, vs. The Southern Pacific Company, et al., Defendants. Stipulation and order. Filed Oct. 5, 1914. Wm. M. Van Dyke, Clerk. By Chas. N. Williams, Deputy Clerk." [44A]

Case No. 221.

IN THE CIRCUIT COURT OF THE UNITED STATES, NINTH CIRCUIT SOUTHERN DISTRICT OF CALIFORNIA, NORTHERN DIVISION.

UNITED STATES OF AMERICA,

Plaintiff.

vs.

SOUTHERN PACIFIC COMPANY, et al.,

Defendants.

IN EQUITY.

ANSWER OF DEFENDANT, THE EQUITABLE TRUST COMPANY OF NEW YORK.

The defendant, The Equitable Trust Company of New York, now, and at all times, saving unto itself all and all manner of benefit and advantage of exception, or otherwise, that can or may be had or taken to the many errors, uncertainties and imperfections in the said Bill of Complaint (hereinafter referred to as "the Bill") contained, makes the following answer thereto, or to so much and such parts thereof as it is advised it is material or necessary for it to make answer to.

I.

It is true, as alleged in the Bill, that the defendant Southern Pacific Company is a corporation, organized and existing under and by virtue of the laws of the State of Kentucky, and a citizen and resident of that State. **[45A]**

The defendant Southern Pacific Railroad Company is a corporation organized and existing under the laws of the State of California and Territories of Arizona and New Mexico, and a citizen and resident of the State of California; but except as aforesaid it is not true, as stated in the Bill, that the said defendant is a corporation organized and existing under the laws of the State of California.

The defendants Homer S. King and James K. Wilson are citizens and residents of the State of California, and are the surviving Trustees under a deed of trust or mortgage, executed by the Southern Pacific Railroad Company, bearing date April 1st, 1875, purporting to and which did secure the payment of $46,000,000 of the corporate bonds of said Southern Pacific Railroad Company; which trust deed or mortgage is claimed to be and is a lien upon the lands involved in this suit. But it is not true, as stated in the Bill, that the Southern Pacific Railroad Company which executed the said trust mortgage is the Southern Pacific Railroad Company defendant in this suit.

The defendant Central Trust Company of New York is a corporation organized and existing under and by virtue of the laws of the State of New York,

and a citizen and resident of that State. The said Central Trust Company is sole Trustee under a trust deed or mortgage executed by the hereinbefore mentioned Southern Pacific Railroad Company and the defendant Southern Pacific Company unto it (the said Central Trust Company of New York) as Trustee, bearing date September 15th, 1893, purporting to and which did secure the payment of $58,000,000 of the corporate bonds issued and to be issued by the said Southern Pacific Railroad Company; and the said Central Trust Company of New York is also sole Trustee under a supplemental trust deed or mortgage executed by the said Southern Pacific Railroad Company and Southern Pacific Company unto it (the said Central **[46A]** Trust Company of New York), bearing date August 18th, 1898, amending the said former trust deed or mortgage of September 15th, 1893, so as to restrict the amount of bonds authorized to be issued thereunder to $30,000,000; which trust deeds or mortgages are claimed to, and do, constitute liens upon the lands involved in this suit. But it is not true, as stated in the Bill, that the Southern Pacific Railroad Company which executed the said trust deeds or mortgages, or either thereof, is the Southern Pacific Railroad Company defendant in this suit.

The defendant The Equitable Trust Company of New York is a corporation organized and existing under and by virtue of the laws of the State of New York, and a citizen and resident of that State. The said defendant is sole Trustee under a deed of trust

or mortgage executed by the defendants Southern Pacific Railroad Company and Southern Pacific Company to it (the said The Equitable Trust Company of New York) as Trustee, bearing date January 3rd, 1905, purporting to and which did secure the payment of $88,502,000 of refunding bonds issued and to be issued by the defendant Southern Pacific Railroad Company; which trust deed or mortgage is claimed by the other defendants to this suit not to constitute a lien upon the lands involved in this suit; but this defendant alleges that it does not know and cannot set forth as to its belief or otherwise as to whether said trust deed or mortgage does or does not constitute a lien upon said lands and this defendant submits to this court for its determination as a matter of fact and law the question whether such trust deed or mortgage does or does not constitute a lien upon said lands.

The defendant Kern Trading & Oil Company is a corporation organized and existing under and by virtue of the laws of the State of California, and a citizen and resident of that State. **[47A]**

II.

The Act of Congress approved July 27th, 1866, entitled "An Act granting lands to aid in the construction of a railroad and telegraph line from the States of Missouri and Arkansas to the Pacific Coast," granted unto the Southern Pacific Railroad Company, referred to and named in Section 18 of the said Act as, and which was, a Railroad Company incorporated under the laws of the State of Califor-

nia, a grant of franchises, privileges and lands, including the lands involved in this suit; which Act of Congress, as published in Volume 14, United States Statutes at Large, pages 292 and following, is hereby made a part of this Answer, by reference.

This defendant asks that, by the order of this Court, all of subdivision "II" of the Bill, except the first paragraph thereof, be expunged therefrom as unnecessary haec verba recitation.

III.

By Joint Resolution of Congress, approved June 28th, 1870, entitled "Joint Resolution concerning the Southern Pacific Railroad of California," the said Southern Pacific Railroad, of California, was authorized to construct its railroad, provided for by the said Act of July 27th, 1866, as nearly as may be on the route indicated on the map filed by said Company in the Department of the Interior on January 3rd, 1867; which Joint Resolution, as published in Volume 16, United States Statutes at Large, pages 382 and following, is hereby made a part of this Answer, by reference.

This defendant asks that, by the order of this Court, all of subdivision "III" of the Bill except the first paragraph thereof, be expunged therefrom as unnecessary haec verba recitation. [48A]

IV.

On or about March 10th, 1902, (not on or about March 10th, 1901, as erroneously stated in the Bill), such proceedings were duly had and taken as that the defendant Southern Pacific Railroad Company

became the successor of the Southern Pacific Railroad Company mentioned in and to which the lands involved in this suit were granted by the said Act of July 27th, 1866, and Joint Resolution of June 28th, 1870, in ownership of all rights, privileges, franchises, lands and other property of the said Southern Pacific Railroad Company, including ownership of the lands involved in this suit subject to the trust deeds or mortgages hereinbefore set forth.

V.

During the year 1904, but prior to August 31st, 1904, the defendant Southern Pacific Railroad Company, as successor of the Southern Pacific Railroad Company named in Section 18 of the said Act of Congress of July 27th, 1866, made application in the manner and form required by law and the rules and regulations prescribed by the Secretary of the Interior, for a patent from the United States for the lands described in subdivision "V" of the Bill, under and in pursuance of the provisions of the said Act of July 27th, 1866, and Joint Resolution of June 28th, 1870.

VI.

This defendant says upon information which it believes to be true, that the true facts and particulars respecting the matters and things set forth in subdivision "VI" of the Bill, are as follows:

No land described in subdivision "V" of the Bill is, or at any time was, known to be, discovered to be, nor did it nor does it appear to be, mineral land or land containing mineral deposits in appreciable

or paying quantities; and it denies that any of [49A] said land was, or is, excepted or excluded as mineral lands, or otherwise, from the grant of lands made unto the said Southern Pacific Railroad Company by the Act of July 27th, 1866, and Joint Resolution of June 28th, 1870.

This defendant is informed and believes that the list of land referred to in subdivision "VI" of the Bill, was lawfully, truthfully and sincerely made and filed, for the purposes therein set forth and none other, in all respects conforming to the rules and regulations of the Interior Department governing such matters; and this defendant is informed and believes that the affidavit referred to in subdivision "VI" of the Bill as having been made by Charles W. Eberlein in support of the defendant Southern Pacific Railroad Company's said application for patent for the lands involved in this suit, was and is true and correct in all particulars, and that officials of the United States were not and could not have been deceived or misled by any statements made in that affidavit.

This defendant further says, on information which it believes to be true, that all allegations made in subdivision "VI" of the Bill, in anywise contrary to or contradictory of the foregoing allegations of this subdivision "VI" of this Answer, are untrue and scandalous.

VII.

The true facts and particulars as to the matters

and things set forth in subdivision "VII" of the Bill, are as follows:

During the month of February, 1900, the lands described in subdivision "V" of the Bill, were by the Commissioner of the General Land Office suspended from non-mineral entry, upon representations made to him that the said lands contained mineral; thereafter the said Commissioner investigated the character **[50A]** of said land for minerals by and through Special Agents of his Department, appointed by him for the purpose of examining and who this defendant is informed and believes did examine the said land for the purpose of ascertaining and reporting its true character for minerals contained, and who duly reported to the Commissioner that they had carefully examined the said land and found no indication that minerals of any kind existed in any of said land; whereupon, in February, 1904, the said Commissioner adopted and approved the said Special Agent's report, and declared all of the said land free from suspension and subject to entry as agricultural land.

By order made and entered on December 10th, 1903, about one year prior to issuance of the patent referred to in subdivision "VII" of the Bill, the Secretary of the Interior duly and properly adjudged that no clause excepting or reserving mineral land could be lawfully inserted in patents for railroad land-grant lands, and directed that thereafter no such clause should be inserted in any such patents; and this defendant is informed and believes that the

uniform practice of the United States officers, continuously since the order of December 10th, 1903, was made, has been to issue all railroad land-grant patents free of any clause or provision excepting, excluding or reserving, mineral lands. The said judgment and order of December 10th, 1903, as published in Vol. XXXII, Decisions of the Department of the Interior, pages 342 and following, is made part of this Answer by reference.

This defendant is advised and believes that the said patent was duly and lawfully issued, in proper form, without inadvertence, or mistake; and upon information and belief it says that **[51A]** all allegations in subdivision "VII" of the Bill, contrary to or contradictory of the foregoing statements of this subdivision "VII" of this Answer, are erroneous and untrue.

VIII.

The defendant Southern Pacific Railroad Company is sole owner, under and in virtue of the United States patent, a copy of which is attached to the Bill, and under and in virtue of the Acts of Congress and Joint Resolution therein referred to, of all lands described in the said attached copy, subject to the lien of the trust deeds or mortgages hereinbefore set forth, and the United States has no right, title or interest whatsoever in or to the said lands, or any part thereof.

The defendant Southern Pacific Company does not, nor does the defendant Kern Trading & Oil Company, own or hold any right, title or interest in

or to any of the said lands; and all material allegations of subdivision "VIII" of the Bill respecting or relating to the said two defendants, are untue.

IX.

The defendant Southern Pacific Railroad Company is the owner (subject to the liens of the aforesaid mortgages) in possession and entitled to the possession of, and entitled to extract all minerals and mineral deposits (if any there be therein or thereon) from the lands described in subdivision "V" of the Bill; and this defendant denies that the possession of said lands, or the extraction of mineral or mineral deposits (if any there be therein or thereon) therefrom, by any or all of the defendants, would be trespass or waste as against plaintiff, or would in anywise injure or concern the plaintiff. [52A]

X.

This defendant denies all and all manner of matter, cause or thing in the said Bill contained, material or necessary for it to make answer to and not herein well and sufficiently answered, traversed, avoided or denied, is true to its knowledge or belief.

All of which matters and things this defendant is ready and willing to aver, maintain and prove, as this Court may direct; and it prays to be hence dismissed, with its reasonable costs and charges in this behalf most wrongfully sustained.

JOHN QUINN,
J. W. McKINLEY,
Attorneys for the said Defendant.
JOHN QUINN,
Counsel for the said Defendant. [53A]

State of New York,
City and County of New York,—ss.

F. W. Fulle, being duly sworn, deposes and says: That he is Vice-President of The Equitable Trust Company of New York, one of the defendants mentioned in the foregoing Answer; that he has read the foregoing Answer and knows the contents thereof; that the allegations therein contained, so far as they relate to his own acts and deeds are true, and so far as they relate to the acts and deeds of others he believes them to be true; and that he has been informed as to the matters and things alleged and denied in the foregoing Answer which are not within his knowledge, and he believes all such allegations and denials to be true.

F. W. FULLE.

Subscribed and sworn to before me on May 1st, 1911.

[Seal] VINE H. SMITH,
Notary Public Kings County.

Certificate Filed in New York County.

(Endorsed:) Case No. 221. U. S. Circuit Court, Southern District of California, Northern Division. United States of America, Plaintiff, vs. Southern Pacific Co., et al., Defendants. Answer of Defendant The Equitable Trust Company of New York. John Quinn, J. W. McKinley, Attorneys for Defendant. Rec'd Copy of the within Answer this 12th day of May, 1911.

A. I. McCormick, U. S. Atty. Filed May 12, 1911.

Wm. M. Van Dyke, Clerk. By Chas. N. Williams, Deputy Clerk. **[54A]**

At a stated term, to-wit: the January Term, A. D., 1912, of the District Court of the United States of America, in and for the Southern District of California, Southern Division, held at the court room thereof, in the city of Los Angeles, on Monday, the twenty-ninth day of January, in the year of our Lord one thousand nine hundred and twelve.

Present:

The Honorable Olin Wellborn, District Judge.

UNITED STATES OF AMERICA,

Complainants,

vs.

THE SOUTHERN PACIFIC COMPANY, a corporation, et al.,

Defendants.

C. C. No. 221, Northern Division.

On motion of A. I. McCormick, Esq., U. S. Attorney, and pursuant to the stipulation of the parties hereto, by their solicitors, filed herein January 13th, 1912, it is ordered that the time within which the evidence in chief for the complainants may be taken and completed be, and the same hereby is extended until and including the 31st day of May, 1912, that the defendants may have to and including the 30th day of July, 1912, within which to take and complete their testimony in said cause, and that the complainants may have to and including the 29th day of

August, 1912, within which to take and complete their testimony in rebuttal. **[55A]**

IN THE DISTRICT COURT OF THE UNITED STATES, IN AND FOR THE SOUTHERN DISTRICT OF CALIFORNIA, NORTHERN DIVISION.

UNITED STATES OF AMERICA,
Complainant,

vs.

THE SOUTHERN PACIFIC COMPANY, et al.,
Defendants.

IN EQUITY
NO. 221.

STIPULATION.

WHEREAS, the above entitled Court, by its minute order duly given, made and entered on the 30th day of December, 1911, under and in pursuance of a written stipulation duly and regularly signed and agreed to by each and all of the parties to the above entitled cause, and their solicitors, appointed Leo Longley, Esquire, of Los Angeles, California, as Special Examiner of said Court to take the evidence, both oral and documentary, of the respective parties in said cause, and report the same to the Court, and

WHEREAS, it is the desire of each and all of the parties to said cause to enlarge and amplify said order.

NOW, THEREFORE, IT IS HEREBY STIPULATED AND AGREED by and between each and all of the parties to the above entitled cause, and

their solicitors, that the evidence of plaintiff and defendants respectively, both oral and documentary, shall be taken before said Leo Longley as Special Examiner in said cause; that said evidence shall be taken by said Leo Longley as such Special Examiner in the southernmost room of the United States District Court in the Federal Building in the City of Los Angeles, California, or at such other place, either within or without the Southern District of California, as he, **[56A]** the said Leo Longley as such Special Examiner may be advised by the respective parties to the above entitled cause; that the said evidence so to be taken by and before the said Leo Longley, Esquire, as such Special Examiner, may be by him, the said Leo Longley, personally or by and under his supervision, taken down in shorthand and thereafter by him, the said Special Examiner, or under his supervision and direction, transcribed into typewriting; that said evidence when so taken and transcribed, together with the documentary evidence offered and introduced before him, shall be by the said Leo Longley as such Special Examiner, returned, certified and filed with the Clerk of the District Court of the United States for the Southern District of California, and said evidence, both oral and documentary, when so taken and transcribed, certified and filed, shall thereafter be considered and shall constitute the evidence in said cause.

IT IS FURTHER STIPULATED that it shall not be necessary for either or any of the witnesses

whose testimony may be taken before said Special Examiner, to read over or sign his said testimony, but the same, when so taken and transcribed, certified and filed as aforesaid, may be used with the same force and effect as if each of said witnesses had read over and signed his said testimony after the same had been transcribed.

IT IS FURTHER STIPULATED that the taking of testimony on behalf of the complainant, United States of America, shall be commenced before said Leo Longley as such Special Examiner, on Tuesday, the 16th day of April, 1912, in the said Court Room of the United States District Court at Los Angeles, above described, and shall be continued thereafter at such times and places as the said Special Examiner may be advised by the Solicitors for said Plaintiff and may direct, provided that the taking of testimony by the said Plaintiff in its case in chief shall be completed on or before the 15th day of June, 1912, and the testimony of the defendants shall be completed on or before the 15th day of August, 1912, and the taking of [57A] the testimony of the plaintiff in rebuttal shall be completed on or before the 15th day of September, 1912.

IT IS FURTHER STIPULATED AND AGREED that should either of the parties to said cause desire to take or introduce testimony before said Special Examiner at any place other than in the City of Los Angeles, California, if the parties hereto can not agree by stipulation so to do, the other parties to said cause shall be entitled to and shall have not less

than ten days notice of the time and place of the taking of such testimony or evidence.

IT IS FURTHER STIPULATED AND AGREED that an order of the above entitled Court may be made and entered in conformity with this stipulation.

Dated this 14th day of March, 1912.

W. N. MILLS,
of Counsel

GEO. W. WICKERSHAM,
A. I. McCORMICK,
Attorneys for Plaintiff.

WM. SINGER, JR., Counsel, and GUY V. SHOUP and CHAS. R. LEWERS, Attorneys for all defendants other than the Equitable Trust Company of New York.

J. W. McKINLEY,
Attorneys for Defendant Equitable Trust Company of New York.

It is so ordered.

R. S. BEAN,
Judge.

FILED AND ENTERED
May 9th, 1912.

WM. A. VAN DYKE, Clerk,
By Murray C. White, Deputy Clerk. [58A]

IN THE DISTRICT COURT OF THE UNITED STATES, IN AND FOR THE SOUTHERN DISTRICT OF CALIFORNIA, NORTHERN DIVISION.

UNITED STATES OF AMERICA,
Complainant,

vs.

THE SOUTHERN PACIFIC COMPANY, et al.,
Defendants.

IN EQUITY
NO. 221.

STIPULATION

WHEREAS, it is the desire of the plaintiff in the above entitled cause to take and introduce testimony before Leo Longley, as Special Examiner, at the City of Washington, District of Columbia, and

WHEREAS, the time in which the plaintiff in the above entitled cause may take its testimony and evidence expires under the Stipulation and Order now in effect on the 15th day of August, 1912, and it is the desire of the parties hereto to enlarge and extend said time as well as the time for taking the evidence of defendants and of plaintiff in rebuttal;

It is hereby stipulated and agreed by and between each and all the parties to said suit and their solicitors, as follows: That the time within which plaintiff may take and complete its testimony and evidence on its case in chief may be and the same hereby is enlarged and extended up to and including the 15th day of September, 1912, and that the tes-

timony and evidence of said defendants shall be taken and be completed by or before the 15th day of November, 1912, and the taking of the testimony and introduction of evidence in rebuttal by said plaintiff shall be completed on or before the 15th day [**59A**] of December, 1912.

It is further stipulated and agreed by and between each and all the parties to said suit and their solicitors that upon the adjournment of the hearing now pending before the said Leo Longley, as Special Examiner, at the court room of the United States Circuit Court of Appeals, in the Post Office Building at San Francisco, California, the further taking of testimony on behalf of the plaintiff in its case in chief shall start and be proceeded with on Monday, the 29th day of July, at the City of Washington, in the District of Columbia, at such hour on said day and at such place in said City as shall be designated by said Leo Longley, Special Examiner.

It is expressly understood that this stipulation shall not and is not intended to in any way change or alter the stipulation or order now in force governing the taking of the testimony and evidence in said suit except to enlarge the time and fix a date and place for the further resumption of the hearing herein as expressly stated.

It is stipulated that an order of court may be made and entered in conformity with this stipulation.

Dated this 9th day of July, 1912.

W. N. Mills,
Special Assistant to the Attorney General of the United States. Of Counsel.

Geo. W. Wickersham,
A. I. McCormick,
Attorneys for Plaintiff.

Wm. Singer, Jr.,
Chas. R. Lewers,
Guy V. Shoup,
Attorneys for all defendants other than the EQUITABLE TRUST COMPANY of New York.

J. W. McKinley,
per G. V. L.
Attorneys for defendant EQUITABLE TRUST COMPANY of New York.

It is so ordered.
R. S. Bean,
Judge.

FILED and entered August 12th, 1912.
Wm. M. Van Dyke, Clerk. By C. E. Scott, Deputy Clerk. [60A]

IN THE DISTRICT COURT OF THE UNITED STATES, IN AND FOR THE SOUTHERN DISTRICT OF CALIFORNIA, NORTHERN DIVISION.

UNITED STATES OF AMERICA,
Complainant.

vs.

THE SOUTHERN PACIFIC COMPANY, et al.,
Defendants.

IN EQUITY.
NO. 221.

STIPULATION

WHEREAS, the time in which the plaintiff in the above entitled cause may take its testimony and evidence expires under the Stipulation and Order now in effect on the 15th day of September, 1912, and it is the desire of the parties hereto to enlarge and extend said time as well as the time for taking the evidence of defendants and of plaintiff in rebuttal;

IT IS HEREBY STIPULATED AND AGREED by and between each and all of the parties to said suit and their solicitors, as follows: that the time within which plaintiff may take and complete its testimony and evidence on its case in chief may be and the same hereby is enlarged and extended up to and including the 1st day of October, 1912, and that the testimony and evidence of said defendants shall be taken and be completed by or before the 1st day of January, 1913, and the taking of the testimony and introduction of evidence in rebuttal by said plaintiff shall be completed on or before the 1st day of February, 1913.

It is further stipulated and agreed by and between each and all of the parties to said suit and their solicitors that [**61A**] upon the adjournment of the hearing now pending before Leo Longley, as Special Examiner, at the court room of the United States District Court for the Southern District of California, in the Post Office Building at Los Angeles, California, the further taking of testimony on behalf of the plaintiff in its case in chief shall start

and be proceeded with on Tuesday, the 17th day of September, 1912, at the City of Bakersfield, in Kern County, State of California, at such hour on said day and at such place in said City as shall be designated by said Leo Longley, Special Examiner.

It is expressly understood that this stipulation shall not and is not intended to in any way change or alter the stipulation or order now in force governing the taking of the testimony and evidence in said suit except to enlarge the time and fix a date and place for the further resumption of the hearing herein as expressly stated.

It is stipulated that an order of court may be made and entered in conformity with this stipulation.

Dated this 12th day of September, 1912.

Geo. W. Wickersham,
A. I. McCormick,
Attorneys for Plaintiff.

W. N. Mills,
Special Assistant to the Attorney General of the United States. Of Counsel.

Guy V. Shoup,
Charles R. Lewers,
Attorneys for all defendants other than the Equitable Trust Company of New York.

J. W. McKinley,
Attorneys for Defendant Equitable Trust Company of New York.

It is so ordered:

R. S. Bean,
Judge.

Filed and entered September 21st, 1912.
WM. M. VAN DYKE, Clerk.
By Murray C. White, Deputy Clerk. [62A]

IN THE DISTRICT COURT OF THE UNITED STATES, IN AND FOR THE SOUTHERN DISTRICT OF CALIFORNIA, NORTHERN DIVISION.

UNITED STATES OF AMERICA,
Complainant.

vs.

THE SOUTHERN PACIFIC COMPANY, et al.,
Defendants.

IN EQUITY.
NO. 221.

STIPULATION

WHEREAS, the time within which the defendants in the above entitled cause may take their testimony and evidence under the Stipulation and Order now in effect expires on the 1st day of January, 1913, and

WHEREAS, it is the desire of the defendants to have an enlargement of the time within which to take and complete the putting in of their said testimony in said cause and that the said time be extended to the defendants for said purpose until and including the 1st day of February, 1913, and

WHEREAS, under the stipulation now in force the time within which the plaintiff may introduce its testimony and evidence in rebuttal expires on the 1st day of February, 1913.

It is hereby stipulated by and between each and all of the parties to said suit and their solicitors as follows: That the time within which the defendants may take and complete their testimony and evidence in defense may be and the same hereby is

enlarged and extended up to and including the 1st day of February, 1913, at which time all of the testimony to be adduced by the defendants, and each of them, shall be fully completed and introduced and the taking of testimony and introduction of evidence in [63A] rebuttal by said plaintiff shall be completed on or before the 1st day of March, 1913.

It is expressly understood that this Stipulation shall not and is not intended to in any way change or alter the stipulation or order now in force governing the taking of testimony and evidence in said cause except to enlarge the time as aforesaid.

It is stipulated that an order of court may be made and entered in conformity with this stipulation.

Dated this 22nd day of November, 1912.

GEORGE W. WICKERSHAM,
Attorney General of U. S.
A. I. McCORMICK,
U. S. Atty,
Attorneys for Plaintiff.

W. N. Mills,
Special Assistant to the Attorney General of the United States. Of Counsel.

GUY V. SHOUP,
CHAS. R. LEWERS,
Attorneys for all defendants other than the Equitable Trust Company of New York.

J. W. McKINLEY,
Attorney for Defendant Equitable Trust Company of New York.

It is so ordered:

R. S. Bean,
Judge.

Filed and entered December 2nd, 1912.
WM. M. VAN DYKE, Clerk.
By Chas. N. Williams, Deputy Clerk. [64A]

IN THE DISTRICT COURT OF THE UNITED STATES, IN AND FOR THE SOUTHERN DISTRICT OF CALIFORNIA, NORTHERN DIVISION.

UNITED STATES OF AMERICA,

Complainant,

vs.

THE SOUTHERN PACIFIC COMPANY, et al.,

Defendants.

IN EQUITY
NO. 221.

STIPULATION

WHEREAS, the time within which the defendants in the above entitled cause may take their testimony and evidence under the Stipulation and Order now in effect expires on the 1st day of February, 1913, and

WHEREAS, it is the desire of the defendants to have an enlargement of the time within which to take and complete the putting in of their said testimony in said cause and that the said time be extended to the defendants for said purpose until and including the 1st day of April, 1913, and

WHEREAS, under the stipulation now in force the time within which the plaintiff may introduce its testimony and evidence in rebuttal expires on the 1st day of March, 1913.

It is hereby stipulated by and between each and all of the parties to said suit and their solicitors as follows: That the time within which the defendants may take and complete their testimony and

evidence in defense may be and the same is hereby enlarged and extended up to and including the 1st day of April, 1913, at which time all of the testimony to be adduced by the defendants, and each of them, shall be fully completed and introduced and the taking of testimony and introduction of evidence in rebuttal by said plaintiff shall be completed on or before the 1st day of June, 1913. **[65A]**

It is expressly understood that this stipulation shall not and is not intended to in any way change or alter the stipulation or order now in force governing the taking of testimony and evidence in said cause except to enlarge the time as aforesaid.

It is stipulated that an order of Court may be made and entered in conformity with this stipulation.

Dated this 29th day of January, 1913.

GEORGE W. WICKERSHAM,
A. I. McCORMICK,
Attorneys for Plaintiff.

W. N. MILLS,
Special Assistant to the Attorney General of the United States, of Counsel.

GUY V. SHOUP,
CHAS. R. LEWERS,
Attorneys for all defendants other than the Equitable Trust Company of New York.

J. W. McKINLEY,
Attorneys for defendant Equitable Trust Company of New York.

It is so ordered:

Judge

[Endorsed]: No. 221. In the District Court of the

United States, for the Sou. Dist. of California, Nor. Div. United States of America, Complainant, vs. The Southern Pacific Co. et al., Defendants. Stipulation & Order. Filed Feb. 3, 1913, Wm. M. Van Dyke, Clerk, By Chas. N. Williams, Deputy Clerk. **[66A]**

IN THE DISTRICT COURT OF THE UNITED STATES, IN AND FOR THE SOUTHERN DISTRICT OF CALIFORNIA, NORTHERN DIVISION.

UNITED STATES OF AMERICA,

Complainant,

vs.

THE SOUTHERN PACIFIC COMPANY, ET AL.,

Defendants.

IN EQUITY
No. 221.

STIPULATION

WHEREAS, the time within which the defendants in the above entitled cause may take their testimony and evidence under the stipulation and order now in effect expires on the 1st day of April, 1913; and

WHEREAS, it is the desire of the defendants to have an enlargement of the time within which to take and complete the putting in of their said testimony in said cause and that the said time be extended to the defendants for said purpose until and including the 1st day of June, 1913; and

WHEREAS, under the stipulation now in force the time within which the plaintiff may introduce its testimony and evidence in rebuttal expires on the 1st day of June, 1913.

It is hereby stipulated by and between each and all of the parties to said suit and their solicitors as follows: That the time within which the defendants may take and complete their testimony and evidence in defense may be and the same is hereby enlarged and extended up to and including the 1st day of June, 1913, and the further taking of testimony and introduction of evidence by said plaintiff shall be completed on or before the 1st day of October, 1913.

It is further stipulated that the defendants will not ask for further enlargement of the time for the completion of [67A] their testimony in chief except upon application to the Court and then only upon showing of good cause therefor.

It is expressly understood that this stipulation shall not and is not intended to in any way change or alter the stipulation or order now in force governing the taking of testimony and evidence in said cause except to enlarge the time as aforesaid.

It is stipulated that an order of Court may be made and entered in conformity with this stipulation.

Dated this 19th day of March, 1913.

J. C. McREYNOLDS,
A. I. McCORMICK,
Attorneys for Plaintiff.

W. N. MILLS,
Special Assistant to the Attorney General of the United States, of Counsel.

GUY V. SHOUP,
CHAS. R. LEWERS,

Attorneys for all Defendants others than the Equitable Trust Company of New York.

J. W. McKINLEY,

Attorney for Defendant Equitable Trust Company of New York.

It is so ordered:

R. S. BEAN,

Judge.

Filed and entered March 21st, 1913.

WM. M. VAN DYKE,

Clerk.

By Chas. N. Williams,

Deputy Clerk. [68A]

At a stated term, to-wit: the January Term, A. D., 1913, of the District Court of the United States of America, in and for the Southern District of California, Southern Division, held at the court room thereof, in the city of Los Angeles, on Wednesday, the seventh day of May, in the year of our Lord one thousand nine hundred and thirteen.

Present:

The Honorable Robert S. Bean, District Judge.

THE UNITED STATES OF AMERICA,

Complainants,

vs.

THE SOUTHERN PACIFIC COMPANY, et al.,

Defendants.

C. C. No. 221, Nor. Div.

This cause coming on this day to be heard on the motion of defendants for the enlargement of the time of defendants for taking testimony; Willis Mills,

Esq., Special Assistant to the U. S. Attorney General, and J. C. Crawford, Esq., Special Assistant to the U. S. Attorney General, appearing as counsel for the United States; Chas. R. Lewers, Esq., of counsel for defendants, having read his motion for the enlargement of the time for taking testimony and also an affidavit in support thereof; and said application for an enlargement of time having been opposed by Willis Mills, Esq., Special Assistant to the Attorney General; now, after presentation of said motion and the opposition thereto, it is by the court ordered that defendants' time for the taking of testimony herein be, and the same hereby is extended sixty (60) days from June 1st, 1913; whereupon, on motion of counsel for the United States, it is ordered that the time of complainants for taking testimony in rebuttal be, and the same hereby is extended to November 1st, 1913. **[69A]**

IN THE DISTRICT COURT OF THE UNITED STATES, FOR THE SOUTHERN DISTRICT OF CALIFORNIA.

UNITED STATES OF AMERICA,

Plaintiff.

vs.

SOUTHERN PACIFIC COMPANY, et al.,

Defendants.

IN EQUITY

No. 221.

W. N. MILLS, Special Assistant to the Attorney General, Attorney for the Government.

CHARLES R. LEWERS, Attorney for defendant Company.

R. S. Bean, District Judge. (Sitting by special assignment).

This suit was brought by the United States to regain title to about ten sections of land in the Elk Hills near McKittrick, in the State of California, theretofore patented to the defendant Southern Pacific Railroad Company under the Act of Congress of July 27, 1866, granting land to aid in the construction of its road. Mineral lands (except iron and coal) were exempt from the operation of the grant.

The lands in controversy are within the indemnity limits of the grant and were applied for and patented to the company as non-mineral lands in lieu of lands lost within place limits. The first selection list was tendered November 14, 1903, but rejected because the lands applied for had been withdrawn from entry. The suspension order was revoked by the Department in the spring of 1904 and lists were retendered, the final one upon which patents issued on September 6, 1904. The patents were issued in December of that year. Each selection list was accompanied by an affidavit of Eberlein, the land agent of the company, stating that he had "caused the lands selected in said company list No. [70A] 89 to be carefully examined by the agents and employees of said company as to their mineral or agricultural character, and that to the best of his knowledge and belief none of the lands referred in said list are mineral lands." The land officers accepted the affidavits and statements therein as true and passed the lands to patent.

The complaint charges that the affidavits accompanying the selection lists were false and that the lands were known oil bearing lands at the time of the proceedings resulting in the patents, and were procured in pursuance of a fraudulent scheme to acquire mineral lands under an agricultural grant. Issue has been joined on the averments of the bill, evidence taken and the case submitted for decision on the merits. The evidence is so voluminous that I cannot, without prolonging this memorandum beyond any reasonable limit, refer to it in detail. From it, however, I extract the following facts as either admitted or clearly proven.

(1) The lands in controversy were at the time of the proceedings resulting in the patents within a known and well recognized oil district and had been previously returned by the U. S. Surveyor as oil bearing lands, and at the time the selection list was first filed were within a previous withdrawal order of the department because of their probable oil character.

(2) They are rough broken, arid lands, of no substantial value for agricultural purposes or any other purpose than their oil contents.

(3) The statement in the affidavits of Eberlein that he has caused the lands to be carefully examined by the agents and employes of the company as to their mineral or agricultural character was and is untrue. This is admitted. Eberlein testified that he had not caused an examination of the lands to be made, and personally knew nothing about their character or con [71A] tents at the time he made

the several affidavits, and the insistence of the defendant throughout the case has been that no examination of the lands to ascertain their mineral contents had been made by any agent or employe prior to the issuance of the patents, although they had for a year or more maintained a corps of expert oil geologists who were actively engaged in examining and classifying lands in the vicinity for the purpose of ascertaining their character.

(4) I think it clearly appears from the documentary evidence in the case, and particularly from the correspondence from Eberlein's files (a portion of which was kept separate from the general files of the office and guarded with the utmost secrecy until compelled to be produced on this hearing) that at the time the selections were made and the patents issued the officers of the company in charge of the matter were conscious that the lands were if not actual at least probable oil bearing, and that the selections were made and strenuously urged to patent for that reason, and not because of their agricultural value. Nearly two months before the first selection list was filed, Eberlein wrote to Mr. Kruttschnitt, the vice-president of the company, saying that he expected to tender selection lists covering lands in the township in question within a week or ten days, and asking that Chambers, the Washington attorney of the company, be requested to give special attention to the patenting of the lands covered thereby. On October 12th Chambers wrote to Kruttschnitt, saying that as soon as advised that the list

had been transmitted he would at the earliest possible date urge the issuance of special patents, but calling attention to the fact that the township in question was within a withdrawal order, but if advised just what lands Eberlein desired to select he would ask the Department to direct Special Agent Ryan to examine the lands as quickly as possible and make special report as to their [72A] character. On December 10, 1913, within thirty days after the list had been tendered by Eberlein and rejected, he wrote to Chambers in reference thereto, saying: "I am particularly anxious in regard to this list, as the lands adjoin the oil territory, and Mr. Kruttschnitt is very solicitous in regard to it. I have had in mind the suggestion you made some time ago in regard to inducing Mr. E. C. Ryan, Special Agent at Los Angeles, to make his report. I am not acquainted with Mr. Ryan, and it is a matter for serious consideration as to how to approach him. It would not do, certainly, to ask for a report recommending the release of the lands selected by us from suspension. In my opinion it would not be politic to ask for a release in any particular district. Mr. Ryan would, in all probability, jump at the conclusion that the railroad had some special information in regard to that district, and the result would probably be that our request would have the opposite effect from that desired. All that I could do would be in a general way to ask him to submit a report of the lands covered by the order of suspension which, as you know, embraces a very large area. How would it do to ask

the Department to suggest to Mr. Ryan that he make a report of so much of the lands within the suspension limits as he has examined up to this time. It might be that such a report would cover the very district in which we are operating, and we would then be relieved from the danger of having called particular attention to any locality."

In the meantime, the defendant Kern Trading & Oil Company was organized for the purpose of taking over the oil lands of the defendant railroad company and operating same as a fuel department. To that end an instrument was prepared, without Eberlein's knowledge, leasing to the Oil Company lands belonging to the railway company in the vicinity of and adjoining the lands in dispute, which lease was forwarded to him for his [73A] signature on August 2, 1904. On September 3, 1904, Eberlein wrote W. B. Cornish, his superior officer, advising him of the proposed lease, pointing out several objections thereto and requesting advice as to the execution thereof, saying among other things: "I can stave off the delivery of this document for some time yet, I think, for the reason that if the knowledge of this lease becomes public property it will probably cause us a great deal of trouble in the United States Land Office, and may result in the loss of a large body of adjacent lands, which may hereafter turn out to be mineral and oil bearing. I found on taking charge of this office that a large body of our lands, especially indemnity lands in the Coalinga, McKittrick and Sunset fields, had been withdrawn by the United

States from entry, pending examination as to their mineral character. I have worked very hard and very steadily to get the United States to complete its report and dispose of this matter. I have just succeeded in getting the Special Agent in charge to make a report releasing our land from interdictment. If it becomes known that we have executed a lease of lands interspersed with those already under selection by us, and that the lease is for oil purposes, it seems to me that it will immediately encourage oil speculators to file upon the lands so selected, and that the government will have good ground for refusing patent, inasmuch as we practically fix the mineral status of the land by this lease."

Thereafter, and notwithstanding Eberlein's knowledge and belief as disclosed by his correspondence, he filed on September 6, 1904, selection list upon which patents were issued, accompanied by his affidavit that he had caused the lands to be carefully examined by the agents and employes of the company as to their mineral or agricultural character, and that to the best of his knowledge and belief none of the lands referred to in the list were mineral lands. [74A]

He subsequently and before the issuance of the patents wrote to the general manager of the company a letter of similar import, a copy of which was furnished to Dumble, the geologist in charge of the fuel department, and on October 6, 1904, he had an interview with Dumble in reference to the matter, which resulted in a letter from Dumble to the manager of

the company, on December 7, 1904, saying: "In connection with our correspondence regarding the transfer of property to the Kern Trading & Oil Company, I have had a conversation with Mr. Eberlein and it seems for reasons of policy regarding certain unpatented lands that it will be best not to execute the lease of lands between the S. P. R. R. Co. and the K. T. & O. Co. at present. I would therefore suggest that the papers covering the transfer of property from the S. P. Co. to K. T. & O. Co. be executed and that the lease of lands in the McKittrick and Coalinga districts from the S. P. R. R. Co. to the K. T. & O. Co. be held up for the present."

(5) The only question upon which I have had any doubt or difficulty is whether the evidence, notwithstanding the matters referred to, is sufficient to show that the patents should be set aside because the lands were in fact known oil lands at the time of the proceedings resulting in their issuance. There had been no actual discovery of oil within the boundaries of the lands at that time but this was not necessary to determine their oil character. Oil like coal occurs in stratified forms of deposit or rather migrates into and permeates stratified deposits and follows them persistently and continuously unless interrupted by some intrusion to the end. Lands therefore may and often do become valuable for oil through adjacent disclosures and other surrounding conditions, although there has been no actual discovery within their boundaries.

From a careful examination of the evidence I have

reached the conclusion that the topographical and structural [75A] formation and character of the lands and of the surrounding area, their proximity to and the known extent of oil development and oil lands to the south and west, and extending out and towards the lands in question, the seepages on or near the lands and the anticlinal structure thereof, and the then known surrounding conditions "were clearly such as to engender the belief that the lands contained mineral (oil) deposits of such quality and in such quantity as would render their extraction profitable and justify expenditure to that end" at the time of the proceedings which resulted in the patents, and this is the test for a similar deposit laid down by the Supreme Court in the Diamond Coal Case, 233 U. S. 236.

At the time the selection list was first filed the lands in controversy together with a large area of other lands were within a previous withdrawal order of the department because of their probable oil contents. At the request of the defendant company the department ordered an examination of the lands applied for by a special agent to ascertain whether they should be relieved for suspension, and upon his report the suspension order was revoked as to these lands and they were subsequently patented to the defendant. The claim is made that the department in issuing the patents relied upon the report of its own employes as to the character of the land, and not the affidavit accompanying the selection lists. The evidence shows that the agent making the examina-

tion and report was not an oil or mineral expert and was instructed by his superior in the Land Office "that it would be unnecessary to go over all the lands but to drive over part of them just as the 'crow flies,' and to interview ranchmen, stockmen, etc., as to the location of oil wells producing oil in paying quantities" and "to recommend that those lands be relieved from suspension on which he found no oil well producing oil in paying quantities," and that he acted accordingly, and **[76A]** made no examination whereby he determined or could determine whether in fact the lands were mineral in character. In his report he said that he "found no oil seepages, oil springs or other indications of oil or mineral of any kind that would tend in his opinion to warrant" the lands being classified as mineral in character, and therefore recommended that they be relieved from suspension.

These proceedings were in no sense an adjudication but a method adopted by the department for determining whether its previous order of withdrawal should be revoked and the lands opened to entry. They did not establish the non-mineral character of the lands nor relieve the company from the consequences of submitting false and misleading affidavits and proof upon which the land officers were expected to and no doubt did rely in issuing patents.

Upon the whole record I conclude that the plaintiff is entitled to the relief demanded.

A decree to that effect may be prepared for the signature of myself or the presiding judge of the court.

Dated at Portland, Oregon, June 9, 1915.

R. S. BEAN,
Judge.

[Endorsed]: CC No. 221 U. S. District Court, Southern District of California, Northern Division. United States of America, vs. Southern Pacific Company, et al., Memorandum of conclusions. Filed June 11, 1915, Wm. M. Van Dyke, Clerk, By Chas. N. Williams, Deputy Clerk. [77A]

IN THE DISTRICT COURT OF THE UNITED STATES, FOR THE SOUTHERN DISTRICT OF CALIFORNIA, NORTHERN DIVISION.

UNITED STATES OF AMERICA,
Plaintiff.

vs.

SOUTHERN PACIFIC COMPANY, a corporation,
SOUTHERN PACIFIC RAILROAD COMPANY, a corporation,
HOMER S. KING, Trustee,
JAMES K. WILSON, Trustee,
THE CENTRAL TRUST COMPANY OF NEW YORK, a corporation,
THE EQUITABLE TRUST COMPANY OF NEW YORK, a corporation, and the
KERN TRADING & OIL COMPANY, a corporation,
Defendants.

IN EQUITY
No. 221.

Final Decree

This cause came on to be heard at this term and was argued by Counsel; and thereupon, upon consideration thereof, it is ORDERED, ADJUDGED AND DECREED as follows:

1. That Patent No. 135 heretofore issued by the United States of America to the defendant Southern Pacific Railroad Company on the 12th day of December, 1904, embracing the lands in this suit which are specifically described in Paragraph V of the bill of complaint herein, as follows, to-wit: All of the following tracts of land situated in Township Thirty (30) South **[78A]** Range Twenty-three (23) East, Mount Diablo Base and Meridian, in the State of California, to-wit: All of Section fifteen, containing six hundred and forty acres; Lots numbered one, two, three, four, five, six, seven, eight, nine, ten, eleven, and twelve of Section Seventeen, containing four hundred sixty-four acres and forty-nine hundredths of an acre; the lots numbered three, four, five, six, seven, eight, nine, ten, eleven, twelve, thirteen and fourteen of Section nineteen, containing four hundred seventy-one acres and thirty-six hundredths of an acre; all of Section twenty-one, containing six hundred forty acres; all of Section twenty-three, containing six hundred and forty acres; the lots numbered one, two, three, four, five, six, seven, eight, nine, ten, eleven and twelve and the West half of Section twenty-five, containing six hundred ninety-three acres and thirty-two hundredths of an acre; all of Section twenty-seven, containing six hundred forty

acres; all of Section twenty-nine, containing six hundred forty acres; all of Section thirty-three, containing six hundred forty acres; all of Section thirty-five, containing six hundred forty acres, is hereby annulled, revoked, cancelled, set aside and held for naught.

2. That the deed of trust mentioned in the bill of complaint and in the several answers herein, which was executed and delivered by the defendants Southern Pacific Railroad Company and Southern Pacific Company to the defendant Central Trust Company of New York, dated September 15, 1893, and also that certain supplemental trust deed executed by the same defendants to the said Central Trust Company of New York, dated August 18, 1898, amending the said first mentioned trust deed of September 15, 1893, in so far as the said trust deeds relate to or affect the lands hereinabove described, be and the same are hereby set aside and held for naught. [79A]

3. That the deed of trust mentioned in the bill of complaint and in the said several answers thereto which was executed and delivered by the defendant Southern Pacific Railroad Company to the defendant Equitable Trust Company of New York, dated January 3, 1905, in so far as the same relates to or affects the lands hereinabove described, be and the same is hereby set aside and held for naught.

4. That the deed of trust dated April 1, 1875, which was executed and delivered by the defendant Southern Pacific Railroad Company to certain trustees, of which the defendants Homer S. King and

James K. Wilson are the surviving trustees, in so far as the same relates to or purports in any wise to affect the lands hereinabove described, be and the same is hereby set aside and held for naught.

5. That the full legal and equitable title and ownership, including the right of immediate possession in and to all of said lands described in this decree, be and they are hereby restored to and vested in the United States of America, and that the defendants Southern Pacific Company, Southern Pacific Railroad Company, Kern Trading & Oil Company, Homer S. King, James K. Wilson, Central Trust Company of New York and Equitable Trust Company of New York, and each of them, and all persons claiming under them or either of them, are hereby declared and decreed to be without any right, title or interest, or claim whatsoever in or to any of the said lands, and are hereby enjoined from claiming or attempting to exercise any right, title, interest, lien or claim in or to the said lands or any part thereof. **[80A]**

And it is further ORDERED, ADJUDGED AND DECREED that this decree shall be recorded in the county records of Kern County, California, as a muniment of the plaintiff's title, and that the defendant Southern Pacific Railroad Company pay unto the plaintiff its costs in this suit to be taxed, in default whereof execution shall issue therefor.

Dated this 5th day of Aug. 1915.

R. S. BEAN,
District Judge.

Decree filed and entered August 9th, 1915, pursuant to order made by Hon. Benjamin F. Bledsoe, Judge U. S. Dist. Court at Los Angeles, Calif. Wm. M. Van Dyke, Clerk. By T. F. Green, Deputy.

[Endorsed]: C. C. No. 221 U. S. District Court, Southern District of California, Northern Division. United States of America vs. So. Pac. Company et al. Decree Filed Aug. 9, 1915. Wm. M. Van Dyke, Clerk. T. F. Green, Deputy. **[81A]**

No. 221

IN THE DISTRICT COURT OF THE UNITED STATES FOR THE NINTH CIRCUIT, SOUTHERN DISTRICT OF CALIFORNIA, NORTHERN DIVISION.

UNITED STATES OF AMERICA,

Plaintiff,

vs.

THE SOUTHERN PACIFIC COMPANY, a corporation,

THE SOUTHERN PACIFIC RAILROAD COMPANY, a corporation,

HOMER S. KING, Trustee,

JAMES K. WILSON, Trustee,

THE CENTRAL TRUST COMPANY OF NEW YORK, a corporation,

THE EQUITABLE TRUST COMPANY OF NEW YORK, a corporation,

THE KERN TRADING & OIL COMPANY, a corporation,

Defendants.

Order Enlarging Time for Appellee to File Praecipe for the Incorporation of Any Additional Portions of the Record in the Transcript on Appeal, and to Make Any Objections to, or Propose Any Amendments to, the Statement of the Evidence Filed by Appellants Herein.

Good cause being shown therefor, the time within which the above-named plaintiff and appellee, UNITED STATES OF AMERICA, shall be required to file with the Clerk of this court its praecipe indicating such additional portions of the record desired by it to be incorporated into the transcript of appeal herein, and the time in which said appellee shall be required to make any objections to, or propose any amendments to, the proposed statement of the evidence heretofore filed herein by the above-named defendants and appellants and marked "Exhibit A," is hereby enlarged and extended to and including the 20th day of April, 1916. **[82A]**

Dated February 12th, 1916.

R. S. BEAN,
District Judge.

[Endorsed]: Original. C. C. No. 221. In the District Court of the United States for the Southern District of California. United States of America, Plaintiff, vs. Southern Pacific Company, et al., Defendants. Order enlarging time for appellee to file Praecipe for the incorporation of any additional portions of the record in the Transcript on Appeal * * * Filed Feb. 12, 1916. Wm. M. Van Dyke, Clerk, By Leslie S. Colyer, Deputy. Eq. O. B. 166. **[83A]**

No. 221

IN THE DISTRICT COURT OF THE UNITED STATES FOR THE NINTH CIRCUIT, SOUTHERN DISTRICT OF CALIFORNIA, NORTHERN DIVISION.

UNITED STATES OF AMERICA,

Plaintiff,

vs.

THE SOUTHERN PACIFIC COMPANY, a corporation,

THE SOUTHERN PACIFIC RAILROAD COMPANY, a corporation,

HOMER S. KING, Trustee,

JAMES K. WILSON, Trustee,

THE CENTRAL TRUST COMPANY OF NEW YORK, a corporation,

THE EQUITABLE TRUST COMPANY OF NEW YORK, a corporation,

THE KERN TRADING & OIL COMPANY, a corporation,

Defendants.

Order Enlarging Time for Appellee to File Praecipe for the Incorporation of Any Additional Portions of the Record in the Transcript on Appeal, and to Make Any Objections to, or Propose Any Amendments to, the Statement of the Evidence Filed by Appellants Herein.

Good cause being shown therefor, the time within which the above-named plaintiff and appellee, UNITED STATES OF AMERICA, shall be required to file with the Clerk of this court its praecipe indicating such additional portions of the record de-

sired by it to be incorporated into the transcript of appeal herein, and the time in which said appellee shall be required to make any objections to, or propose any amendments to, the proposed statement of the evidence heretofore filed herein by the above-named defendants and appellants and marked "Exhibit A," is hereby enlarged and extended to and including the 20th day of April, 1916.

Dated February 19, 1916.

OSCAR A. TRIPPET,
District Judge. **[84A]**

[Endorsed]: C. C. No. 221. In the District Court of the United States for the Sou. Dist. of California, Southern Division. United States of America, vs. The Southern Pacific Company, et al., Order. Filed Feb. 19, 1916, Wm. M. Van Dyke, Clerk, By Chas. N. Williams, Deputy Clerk. Eq. Order Book 168. **[85A]**

At a stated term, to wit: The Special January Term, A. D. 1916, of the District Court of the United States, for the Southern District of California, Northern Division, held at the court room thereof in the city of Los Angeles, on Friday, the seventeenth day of March, in the year of our Lord One Thousand Nine Hundred and Sixteen;

Present:

The Honorable Benjamin F. Bledsoe, District Judge.

THE UNITED STATES OF AMERICA,
Complainants,

vs.

SOUTHERN PACIFIC COMPANY, et al.,
Defendants.

C. C. No. 221. N. D.

Albert Schoonover, Esq., U. S. Attorney, and E. J. Justice, Esq., Special Assistant to the U. S. Attorney General; Chas. B. Lewers, Esq., and Joseph H. Call, Esq., appearing as counsel for defendants, the Southern Pacific Company, et al; and counsel for the United States having moved the court to allow the Government sixty (60) days additional time within which to prepare reply statements and amendments to the bill of exceptions or statement on appeal of defendants; and said motion for additional time having been argued, in support thereof by Albert Schoonover, Esq., U. S. Attorney, of counsel for the United States, and in opposition thereto by Chas. R. Lewers, Esq., of counsel for defendants Southern Pacific Company, et al., and in support thereof in reply by E. J. Justice, Esq., Special Assistant to the U. S. Attorney General, of counsel for the United States, and in opposition thereto in reply by Joseph H. Call, Esq., of counsel for defendants Southern Pacific Company, et al; it is now by the court ordered that complainants be, and they hereby are granted thirty (30) days additional time from and after April [86A] 20th, 1916, within which to prepare said reply statements or amendments to the statement of defendants on their appeal herein to the United States Circuit Court of Appeals for the Ninth Circuit; and it is further ordered, on motion of Joseph H. Call, Esq., of counsel for defendants Southern Pacific Company, et al., and with the consent of all parties, that thirty (30) days' additional time from May 20th, 1916, (and

date of citation), be, and hereby is granted within which to file the transcript of the record on appeal in this cause in the United States Circuit Court of Appeals for the Ninth Circuit. **[87A]**

IN THE DISTRICT COURT OF THE UNITED STATES, IN AND FOR THE SOUTHERN DISTRICT OF CALIFORNIA, NORTHERN DIVISION.

THE UNITED STATES OF AMERICA,
Plaintiff,

vs.

SOUTHERN PACIFIC COMPANY, et al.,
Defendants.

IN EQUITY
No. 221.

Order

For good cause shown, the time heretofore fixed in which appellee is required to propose amendments to the statement of record on appeal, is hereby extended to and including June 1, 1916.

Dated this 15th day of May, 1916.

BLEDSOE,
Judge.

[Endorsed]: No. 221 Equity. In the District Court of the United States for the South. Dist. of California, Northern Division. United States of America, Plaintiff, vs. Southern Pacific Company, et al., Defendants. Order. Filed May 15, 1916, Wm. M. Van Dyke, Clerk, By Chas. N. Williams, Deputy Clerk. Eq. Order Book 173. **[88A]**

At a stated term, to wit: The Special January Term, A. D., 1916, of the District Court of the United States, for the Southern District of California, Northern Division, held at the Court Room thereof in the City of Los Angeles, on Wednesday, the thirty-first day of May, in the year of our Lord One Thousand Nine Hundred and Sixteen;

Present:

The Honorable Benjamin F. Bledsoe, District Judge.

THE UNITED STATES OF AMERICA,

Complainants,

vs.

SOUTHERN PACIFIC COMPANY, et al.,

Defendants.

C. C. No. 221 N. D.

On motion of E. J. Justice, Esq., Special Assistant to the U. S. Attorney General, of counsel for the United States, and with the consent in open court of Charles R. Lewers, Esq., of counsel for defendants, it is, at the hour of 2:20 o'clock, P. M., by the court ordered that the matter of the settlement of the statement of evidence in proposed bill of exceptions and objections and amendments proposed thereto be hereafter taken up by the court on five (5) days' notice, regularly made, served and filed herein. [89A]

At a stated term, to wit: The July Term, A. D. 1916, of the District Court of the United States, for the Southern District of California, Northern Division, held at the court room thereof, in the City of Los Angeles, on Monday, the eighteenth day of Sep-

tember, in the year of our Lord One Thousand Nine Hundred and Sixteen;

Present:

The Honorable Edward E. Cushman, District Judge.

THE UNITED STATES OF AMERICA,
Complainants,

vs.

SOUTHERN PACIFIC COMPANY, et al.,
Defendants.

C. C. No. 221 N. D.

This cause coming on this day to be heard on defendants' motion for the correction, settlement and approval of the condensed statement on appeal herein; F. P. Hopgood, Esq., Special Assistant to the U. S. Attorney General, and Albert Schoonover, Esq., U. S. Attorney, appearing as counsel for the United States; Joseph H. Call, Esq., appearing as counsel for defendants; and said motion having been argued, on behalf of the defendants, by Joseph H. Call, Esq., of counsel for defendants, and on behalf of the Government by F. P. Hopgood, Esq., Special Assistant to the U. S. Attorney General, of counsel for the United States; the court directs that counsel for the respective parties meet and endeavor to agree upon a settlement of said condensed statement on appeal, and it is by the court ordered that, for the settlement of such matters connected with said condensed statement on appeal as counsel cannot agree upon, this cause be, and the same hereby is continued for hearing of same until Wednesday, the 4th day of October, 1916, at 10 o'clock, A. M., at Fresno, California, before Hon. Robert S. Bean, District Judge. [90A]

At a stated term, to wit: The Special October Term, A. D. 1916, of the District Court of the United States for the Southern District of California, Northern Division, held at the court room thereof, in the city of Fresno, California, on Wednesday, the fourth day of October, in the year of our Lord One Thousand Nine Hundred and Sixteen:

Present:

The Honorable Robert S. Bean, District Judge.

THE UNITED STATES OF AMERICA,
Complainants,

vs.

SOUTHERN PACIFIC COMPANY, et al.,
Defendants.

C. C. No. 221 N. D.

This cause coming on this day for the settlement of the Statement of the Case, on appeal, now, on motion of Frank Hall, Esq., Special Assistant to the U. S. Attorney General, of counsel for the United States, no counsel appearing on behalf of defendants, it is ordered that this cause be, and the same hereby is continued for hearing regarding said settlement.

[91A]

IN THE DISTRICT COURT OF THE UNITED STATES FOR THE NINTH CIRCUIT, SOUTHERN DISTRICT OF CALIFORNIA, NORTHERN DIVISION.

THE UNITED STATES OF AMERICA,
Plaintiff,

vs.

SOUTHERN PACIFIC COMPANY, et al.,
Defendants.

It is ordered that the condensation of the testimony of any witness as proposed by the government, where no objection is made by the appellant, be incorporated into the statement of the testimony to be used on appeal, and that the condensation of the testimony of any witness proposed by the appellant, where no objection is made by the government, be incorporated in and become a part of such statement. And that as to the remainder, that part of the condensation of the testimony of a witness by the appellee to which no objection is made shall be incorporated in and become a part of the statement, and that as to the remainder of such condensation, the questions and answers shall be included unless counsel otherwise agree.

Appellant's counsel shall serve a statement upon appellee's counsel designating the parts to which they object and which they desire to have inserted by questions and answers, within thirty days, and upon such notice being given, counsel for appellee shall have thirty days in which to designate any additional parts to be inserted by questions and answers.

R. S. BEAN,
Judge.

Dated San Francisco, October 18, 1916.

[Endorsed]: C. C. 221-N. D. United States vs. So. Pac. Co. et al., Order as to Condensed Statement on Appeal. Filed Oct. 19, 1916, Wm. M. Van Dyke, Clerk, T. F. Green, Deputy. **[92A]**

IN THE DISTRICT COURT OF THE UNITED STATES FOR THE NINTH CIRCUIT, SOUTHERN DISTRICT OF CALIFORNIA, NORTHERN DIVISION.

THE UNITED STATES OF AMERICA,
Plaintiff,

vs.

SOUTHERN PACIFIC COMPANY, et al.,
Defendants.

No. 221

IN EQUITY.

Stipulation of Counsel with Reference to Statement of the Evidence on Appeal

After conference between counsel representing the plaintiff, appellee, and the defendants, appellants, in the above entitled cause, concerning the statement of the evidence to be incorporated in and made a part of the transcript of the record on appeal therein, it is by them STIPULATED AND AGREED as follows:

1.

That the parts of the original record proposed in paragraphs numbered I, II, III, IV, V, VI-A, VI-B, VII, XII, XIII, XVI, XVII, XVIII, XX, XXII, and XXIII of Appellants' Designations filed in the office of the Clerk on November 2, 1916, pursuant to an order in that regard made by District Judge Robert S. Bean on October 18, 1916, shall be incorporated in the statement of the evidence as a part of the transcript on appeal.

2.

That the parts of the original record proposed in

paragraphs numbered VIII, IX, X, XI, XIV, XV, XVIII, XIX, and XXI of appellee's Designations filed in the office of the Clerk on November 16, 1916, pursuant to an order in that regard made by [93A] District Judge Robert S. Bean on October 18, 1916, shall be incorporated in the statement of the evidence as part of the transcript on appeal.

3.

That none of the evidence of William J. Meyers shall be incorporated in the statement of the evidence on appeal, but that all of his evidence, including reports and documents read into the record while he was on the stand from page 2398 of the original record to page 2457 thereof and from page 2544 thereof, shall be transcribed, treated as an exhibit, bound with the volume or volumes of exhibits and sent up as an original document without being printed.

4.

That the abstract of Location Notices contained in the original record from page 2650 to 2837 both inclusive thereof and all condensations thereof shall be excluded from the statement of the evidence on appeal, but shall be transcribed from the original record in full, treated as an exhibit, bound with the volume or volumes of exhibits and sent up as an original document without being printed.

5.

That all condensations of the evidence of W. E. White shall be stricken out and his testimony stated as a part of the evidence on appeal by questions and answers from the original record from page 7098 to

page 7138 both inclusive thereof; but that the drilling reports and other documents read into the record while this witness was on the stand shall be excluded from the statement of his evidence, transcribed in full from the original record, treated as an exhibit, bound with the volume or volumes of exhibits and sent up as an original document without being printed. [94A]

6.

That all condensations of the verbal testimony of George W. Stewart be stricken out and that the verbal testimony of said Stewart shall be stated in the evidence on appeal by questions and answers from the original record; but that all exhibits and documents introduced in evidence or read into the record while said witness was on the stand shall be excluded from the statement of the evidence on appeal and shall be transcribed in full from the original record, treated as an exhibit, bound with the volume or volumes of exhibits and sent up as an original document without being printed.

7.

That all condensations of the evidence of W. J. Luke, Jr., shall be stricken out and that said witness' testimony shall be stated by questions and answers from the original record from page 4766 to page 4876 both inclusive thereof.

8.

That in lieu of the statement on page 793 of appellants' original condensation entitled OMISSION OF TESTIMONY there shall be inserted at the end of

the statement of the evidence to be included in the transcript on appeal the following:

"TESTIMONY OMITTED. During the Trial appellants raised the issue of whether petroleum is a mineral, contending that neither within the meaning of the Act of Congress of July 27, 1866 and the Joint Resolution of June 28, 1870 nor within the meaning of any Act of Congress or any recognized or established meaning is it such; and much testimony upon said issue was introduced both by appellants and appellee which is not made a part of this statement of the evidence on appeal for the reason that in the interval between the introduction of such testimony and the submission of the case the Supreme Court of the United States handed down its decision in the case of Edmund Burke vs. **[95A]** Southern Pacific Railroad Co., 234 U. S. 669 holding that petroleum is a mineral, and thus making such testimony immaterial."

9.

That all documents and exhibits introduced in evidence by the several parties shall be suitably bound by the Clerk and transmitted to the United States Circuit Court of Appeals for the Ninth Circuit as original documents without being printed; but that such documents, reports and other exhibits as have been incorporated in the statement of the evidence of the several witnesses heretofore prepared or condensed by either party and by the order of District Judge Bean or the consent of counsel agreed upon as the evidence of such witnesses to be included in the

transcript of the record on appeal, shall be retained therein, form part of such evidence and be printed therewith.

10.

That in preparing the final draft of the statement of the evidence to be included in the transcript of the record on appeal appellants shall, as far as possible, set out the evidence of the several witnesses in the order in which they were sworn and in which their testimony is reported in the original record.

San Francisco, Cal.,
November 29, 1916.

JOSEPH H. CALL,
Of counsel for appellants.

F. P. HOBGOOD, JR.,
Of counsel for appellee.

[Endorsed]: No. 221. In the District Court of the United States for the So. Dist. of California, Northern Divis. United States vs. Southern Pacific Co., et al., Stipulation of Counsel with reference to Statement of evidence on Appeal. Filed Dec. 1, 1916. Wm. M. Van Dyke, Clerk. By Chas. N. Williams, Deputy Clerk. **[96A]**

IN THE DISTRICT COURT OF THE UNITED STATES, FOR THE SOUTHERN DISTRICT OF CALIFORNIA,
NORTHERN DIVISION.

UNITED STATES OF AMERICA,
Plaintiff,

vs.

SOUTHERN PACIFIC COMPANY, et al.,
Defendants.

No. 221
IN EQUITY.

Stipulation of Counsel as to Setting Appeal for Argument.

IT IS STIPULATED AND AGREED by and between counsel representing the several parties to the above entitled cause that the argument of the appeal therein to the United States Circuit Court of Appeals for the Ninth Circuit shall be set for argument in said Circuit Court of Appeals for the May Session 1917 thereof and for a day certain between the seventh day of May and the fifteenth day of May 1917; and that this stipulation shall be filed with the transcript of the record on appeal.

San Francisco, Cal.,
November 29, 1916.

JOSEPH H. CALL,
Of counsel for appellants.
F. P. HOBGOOD, JR.,
Of counsel for appellee.

[Endorsed]: No. 221. In the District Court of the United States for the So. Dist. of California, Northern Divis. United States vs. Southern Pacific Co., et al., Stipulation of counsel as to Setting appeal for argument. Filed Dec. 7, 1916, Wm. M. Van Dyke, Clerk, by Chas. N. Williams, Deputy Clerk. [97A]

IN THE DISTRICT COURT OF THE UNITED STATES, FOR THE SOUTHERN DISTRICT OF CALIFORNIA, NORTHERN DIVISION.

THE UNITED STATES OF AMERICA,
Plaintiff,

vs.

SOUTHERN PACIFIC COMPANY, et al.,
Defendants.

IN EQUITY
No. 221

Stipulation of Parties with Reference to Condensed Statement of Evidence.

It is stipulated and agreed by and between the undersigned counsel representing the plaintiff and the defendants in the above entitled cause that the condensed statement of evidence to be printed upon appeal heretofore transcribed and compiled under the direction of Francis P. Harrington and consisting of three volumes, the first volume comprising pages 1 to 1011 inclusive, the second volume comprising pages 1012 to 2340 inclusive and the third volume comprising pages 2341 to 3200 inclusive, is in conformity with orders heretofore made by Honorable Robert S. Bean, the judge who rendered the decree from which this appeal is prosecuted, and the several stipulations of counsel representing the parties to said cause with reference to the condensed statement of the evidence on appeal under the provisions of the pertinent rules of practice in equity.

It is further stipulated and agreed that one volume of exhibits and evidence containing 786 pages, transcribed by said Harrington and to be bound and transmitted as original documents, but not to be printed, is in conformity with the stipulations of counsel in that regard heretofore made. [98A]

It is further stipulated and agreed that, if there shall hereafter, whether before or after printing, be discovered in the statement of the evidence on appeal or the exhibits any error or errors made in transcribing such evidence or exhibits from the original record, where agreed upon, or from the condensation

heretofore made by the parties, where agreed upon, such error or errors shall be corrected; and that, if any material omission of evidence be discovered, such omission shall be supplied; and that in any and all such cases the undersigned will unite in signing and transmitting to the clerk of the circuit court of appeals such instructions as may be necessary to accomplish the purpose and intent of this stipulation.

San Francisco, Cal.,
January 26, 1917.

F. P. HOBGOOD, JR.,
Of counsel for plaintiff
JOSEPH H. CALL,
Of counsel for defendants.

(Endorsed): No. 221. In the District Court of the United States, for the Southern Dist. of Calif., Northern Div'n. United States of America, Plff., vs. Southern Pacific Co., et al., Defts. Stipulation of parties with reference to condensed statement of evidence. Filed Jan. 27, 1917. Wm. M. Van Dyke, Clerk, By Chas. N. Williams, Deputy Clerk. [99A]

No. 221

IN THE DISTRICT COURT OF THE UNITED STATES FOR THE NINTH CIRCUIT, SOUTHERN DISTRICT OF CALIFORNIA, NORTHERN DIVISION.

THE UNITED STATES OF AMERICA,
Plaintiff,

vs.

SOUTHERN PACIFIC COMPANY, et al.,
Defendants.

Order Approving Statement of Evidence on Appeal.

This cause coming on to be heard this 27th day of January, 1917, on motion of counsel for appellants, defendants in said District Court, to approve as true, complete and properly prepared the condensed statement of evidence upon appeal; counsel for both sides being present;

Now, therefore, upon consideration thereof, it is ordered by the court that said condensed statement of testimony to be printed as a part of the record upon appeal, in pursuance of the designations and stipulations of the respective parties, and orders of the court, be and the same is hereby approved, the same having been transcribed by F. P. Harrington, and consisting of three volumes and containing 3200 pages in all, to be so printed as a part of the record upon appeal.

And it is further ordered, that one volume of exhibits and evidence containing 786 pages, transcribed by said F. P. Harrington, stipulated by the respective parties to this cause to be transcribed, bound and transmitted to the court upon appeal as original documents, but not to be printed, is hereby approved and shall be so bound and transmitted by the clerk as a part of the record upon appeal without being printed;

And it is further ordered, that the remaining exhibits and maps filed in evidence as a part of the record in this cause, shall in pursuance of stipulations of the parties, be suitably [100A] bound by the clerk of this court and transmitted as a part of the

record upon appeal herein as original documents, without being printed;

And it is further ordered, that said condensed statement of evidence, together with said exhibits, evidence and documents, so stipulated by the respective parties to be bound and transmitted without being printed, be and the same are hereby approved as the true, complete and properly prepared statement of evidence upon appeal.

OSCAR A. TRIPPET

Judge United States District Court, Southern District of California.

(Endorsed) No. 221. In the District Court of the United States for the Ninth Circuit, Southern District of California, Northern Division. United States of America, Plaintiff, vs. Southern Pacific Company, et al., Defendants. Order Approving Statement of evidence on appeal. Filed Jan. 27, 1917. Wm. M. Van Dyke, Clerk, By Chas. N. Williams, Deputy Clerk. Eq. Order Book. **[101A]**

(Endorsed) Original. Equity No. In the United States Circuit Court of Appeals for the Ninth Circuit. The Southern Pacific Company, a corporation, et al., Appellants, vs. The United States of America, Appellee, Exhibit A. To be Printed. Volume I. Filed Jan. 27, 1917. Wm. M. Van Dyke, Clerk, By Chas. N. Williams, Deputy Clerk. F. P. Harrington, Transcriber. **[101½A]**

EQUITY
No. 221

IN THE DISTRICT COURT OF THE UNITED STATES FOR THE NINTH CIRCUIT SOUTHERN DISTRICT OF CALIFORNIA, NORTHERN DIVISION

THE UNITED STATES OF AMERICA,
Plaintiff,

vs.

THE SOUTHERN PACIFIC COMPANY, a corporation, et al.,
Defendants.

EXHIBIT A

Condensed Statement of Evidence in Transript on Appeal as Approved by the Court and to be Printed.

VOLUME I. [1]

JAMES MALCOLM GLEAVES, a witness called and sworn on behalf of the plaintiff, testified as follows:

DIRECT EXAMINATION

I am chief clerk in the office of the United States Surveyor-General for California. I am acquainted with the regulations and practice of that office with reference to the custody of plats of survey and field notes and their transmission to the General Land Office. The regulations require that a United States Deputy Surveyor, upon the completion of a contract, shall file the field notes of his returns with the Surveyor-General. They are taken up for examination and platting in the regulation order of receipt, and upon their approval by the Surveyor-General, a transcript of the official field notes of survey, as well

as a duplicate copy of the original plat, is forwarded to the Commissioner of the General Land Office for his acceptance. On April 18, 1906, the records in the office of the Surveyor-General, and the plats of survey and field notes for all of the townships of Kern County, California, were destroyed. Since that time the General Land Office has furnished our office with copies of the duplicates and copies furnished the General Land Office by our office. In preparing the plats of survey, a duplicate is made for the General Land Office and a so-called triplicate made for the local land office. Copies of the field notes are also made for the General Land Office. I know officially that plats of surveys of the following townships were so furnished to the General Land Office before the destruction of the records of the Surveyor-General's office by the fire of 1906, to wit: Townships 30, 31 and 32 South, Ranges 21, 22, 23 and 24 East, Mount Diablo Meridian, and Township 11 North, Ranges 23 and 24 West, San Bernardino Meridian. **[2]**

CROSS-EXAMINATION OF JAMES MALCOLM GLEAVES.

I was employed in the Surveyor-General's office in San Francisco prior to December 12, 1904. I was appointed chief clerk of that office on the 31st day of March, 1898, and I have been employed in that capacity ever since. I am presuming that the maps and field notes were filed with the General Land Office because of the fact that after the destruction of the office, copies thereof were furnished our office.

Thereupon the plaintiff offered in evidence a certi-

fied and exemplified copy by the General Land Office of the plat of survey of Township 11 North, Range 23 West, San Bernardino Meridian, approved in the Surveyor-General's office on November 19, 1858, which said plat of survey was marked plaintiff's exhibit "A," and, together with all other exhibits offered by the plaintiff, is made a part of the record and transmitted to the Circuit Court of Appeals pursuant to the order of Judge Ross dated January 29, 1916, which reads in part as follows:

> "That in preparing the transcript of the record upon appeal, that all maps and exhibits introduced in evidence by either or all parties may be bound in volumes and transmitted by the clerk as original documents as a part of the record upon appeal without being transcribed."

Thereupon the plaintiff offered in evidence a certified and exemplified copy of plat of survey of Township 11 North, Range 24 West, San Bernardino Meridian, approved in the Surveyor-General's office for California April 29, 1874, which said plat was marked plaintiff's exhibit "B."

Thereupon the plaintiff offered in evidence a certified and exemplified copy of plat of survey of Township 30 South, Range 22 East, Mount Diablo Meridian, approved in the Surveyor-General's office for California August 17, 1871, which said plat was marked plaintiff's exhibit "C." [3]

Thereupon the plaintiff offered in evidence a certified and exemplified copy of plat of survey of Township 30 South, Range 22 East, Mount Diablo

Meridian, approved in the Surveyor-General's office for California November 18, 1893, which said plat was marked plaintiff's exhibit "D".

Thereupon the plaintiff offered in evidence a certified and exemplified copy of plat of survey of Township 30 South, Range 23 East, Mount Diablo Meridian, approved in the Surveyor General's office for California August 1, 1902, which said plat was marked plaintiff's exhibit "E".

Thereupon the plaintiff offered in evidence a certified copy of an original map made by the United States Geological Survey, under authority of law of the United States, published and on file in the archives of the survey, known as Preliminary Geologic and Structural Map of the McKittrick and Sunset Oil Regions, California, Plate 1, Bulletin 406, which said map was thereupon marked plaintiff's exhibit "F".

Thereupon the plaintiff offered in evidence certified and exemplified copies under the seal of the General Land Office of the following papers, to-wit: List No. 89, "Lands Selected by the Southern Pacific Railroad Company, Indemnity Limits Main Line", dated September 12, 1904; attached to which as a part thereof are the following two affidavits, which were read in evidence as follows, to-wit: "State of California, City and County of San Francisco, ss. I, Charles W. Eberlein, being duly sworn, depose and say: That I am the Acting Land Agent of the Southern Pacific Railroad Company, successor by consolidation to the Southern Pacific Railroad Com-

pany (of California); that the foregoing list of lands which I hereby select is a correct list of a portion of the public lands claimed by the said Southern Pacific Railroad Company, successor as aforesaid, as inuring to it to aid in the construction of the railroad of said company from Lerdo to Sumner, for which a grant of [4] lands was made by the Acts of Congress approved July 27, 1866, July 25, 1868, and June 28, 1870, as aforesaid; that the said lands are vacant, unappropriated, and are not interdicted mineral or reserved lands, and are of the character contemplated by the grant, being within the limits of the exterior ten (10) miles Indemnity Belt, on each side of the line of route for a continuous distance of twenty (20) miles, being for the sixth (6th) section of said road, starting from a point in N. E. ¼ of Sec. 9, T. 28 S. R. 26 E. M. D. B. & M. and ending at a point in N. E. ¼ of Sec. 5, T. 30 S. R. 29 E. M. D. B. & M., and that the specific losses for which indemnity is claimed are truly set forth and described in said list, and that said losses have not heretofore been indemnified in any manner. (Signed) Charles W. Eberlein, (Seal). Sworn to and subscribed before me, this thirty-first (31st) day of August, 1904. Witness my hand and Notarial Seal. (Signed) E. B. Ryan, Notary Public in and for the City and County of San Francisco, in the State of California." "State of California, City and County of San Francisco, ss. Charles W. Eberlein, being duly sworn, deposes and says: that he is the Acting Land Agent of the Southern Pacific Railroad Company, that he has

caused the lands selected in said company's list No. 89 to be carefully examined by the agents and employees of said company as to their mineral or agricultural character, and that to the best of his knowledge and belief none of the lands returned in said list are mineral lands. (Signed) Charles W. Eberlein. Subscribed and sworn to before me this 31st day of August, 1904, E. B. Ryan, Notary Public in and for the City and County of San Francisco, State of California", which said selection list No. 89 was marked plaintiff's exhibit "G", and is transmitted as a whole in the same manner as plaintiff's exhibit "A".

W. H. HILL, a witness called and sworn on behalf of the plaintiff, testified as follows: [5]

DIRECT EXAMINATION

I reside in Bakersfield, Kern County, California, and am in the oil business, and am a maker of oil maps. I am a member of the firm of Barlow & Hill. That firm, in 1904, published a map of the California oil fields of Kern River, Coalinga, Sunset, Midway and McKittrick districts. The sheet marked Range 21 East, 22 East, and 30 South, "McKittrick Oil Fields", was constructed by us in the following manner: We have copies of all these separate townships, obtained from the land office in Visalia, giving the outline and the acreage and the survey direction. From these, I compile these maps myself, as far as the outline and the acreage is concerned. The other data on the map was nearly all obtained by my personal visit. The other data consists principally in

the location of oil wells or oil drilling rigs or abandoned wells. This is the data that I speak of as obtained by personal visit of myself through the fields. A drilling rig is indicated on this map by a circle with a dot in the center. A derrick is indicated only by a circle. When oil is struck, the whole interior of the circle is blackened. If the well was abandoned, four short marks are made on the opposite sides of the circle. The date on the map is 1904 and it is a correct picture of the oil conditions in the particular townships it purports to picture at that time. The same facts as to the manner of construction apply to the map marked Ranges 23 and 24 East, and Townships 31 and 32 South, called the "Midway Oil Fields", and to the map marked Range 24 West, Range 23 West, and Townships 11 and 12 North, called "Sunset Oil Fields". I personally visited every place on there, or nearly every one, and obtained from the owners the exact location, as nearly as could be. It was admitted that none of the maps attempt to picture townships known as 20-23. The book, including these maps, is marked plaintiff's exhibit "HD". We published twenty-five hundred copies of this [6] edition, including the maps, and sold all of them, generally in single copies. Probably two-thirds were sold in and around the oil fields in Kern County. The balance were sold in Los Angeles and San Francisco, except a few sent East by mail and to the old country. This map was completed and published before August 31, 1904. All the printed matter in this book was prepared by me personally,

except the advertisements were attended to by my partner. The names of the companies I got from the superintendents and I obtained some of the locations of the particular part of the property on which a well was located from them. Some of the information I got from the abstract office. I did not go in every case upon the section. I only went where there was development. In many cases I got my information from individuals, from the abstract office, or from whatever source I thought was reliable. As far as these three maps are concerned, they are based on my personal visits to each and every claim, but in the Coalinga case I took most of the information from other parties and did not go on personal investigation as I did in these three maps. [7]

A. C. VEATCH, called and sworn as a witness for the plaintiff, testified as follows:

DIRECT EXAMINATION

I was connected with the Geological Survey of the United States between the years 1902 and 1910, inclusive, and during that time had experience in the making of topographical maps. I did not make the map marked "I-LL" for identification, but I compiled portions of it. The map is a photograph of two topographic atlas sheets of the Geological Survey known as the Bakersfield Quadrangle and the McKittrick Quadrangle. These sheets were pasted together and the portion covering this map enlarged to the present scale. The dark line running through the center shows the point at which the two quadrangles were joined. The map differs from the original

sheets in the addition on the face of it of the section numbers and other additions placed there by me on information that I had from personal investigation in the fields and from the maps of Barlow & Hill, of 1904, known as exhibits "HA", "HB" and "HC". I obtained the quadrangles at the Geological Survey. They were made from sheets in the field, field work. I have used the open red circles for wells uncompleted; that is, those drilling, standing, or abandoned in 1904, and a solid red circle for those which had produced or were producing in 1904. The Elk Hills, so-called, and the Buena Vista Hills, so-called, are pictured on this map. I have outlined the features as shown by the contour lines with a heavy brown line to enable one to pick them up quickly. Exhibits "HA", "HB" and "HC" are substantially a correct picture as shown by the Barlow & Hill Maps of the conditions in that oil field so far as the oil development was concerned in 1904. The sections marked with red lines in Township 30 South, 23 East, are the lands involved in this suit, according to the description furnished me. The black lines here in 30-23 are the anticlinal axis where the arrow points away from the line. The same is true as to the other black lines on the map. Where [8] the arrows point towards the line, it is the synclinal axis. The legend on the margin correctly designates the symbols.

Thereupon, the plaintiff offered in evidence the map identified by the witness and marked Plaintiff's Exhibit "I".

CROSS-EXAMINATION

This map was not prepared by me. The base is a photograph from quadrangles of the Geological Survey. I have been over the map and find it substantially correct, and have indicated anticlinal axes where I have found them. I would say that all the map is a matter of compilation which I have checked up in the field. I have not checked all the wells indicated, as it cannot be done at the present time. The portion of the map which is not the result of my own personal investigations is the detail topography. I did not sketch each line of it. I verified the general aspect of it as a correct picture. I checked the map in Township 30-23 and in the Temblor Range in those adjoining hills to verify its general correctness for the purpose of introducing it as a picture of the regions. The synclinal axis between the Elk Hills and the McKittrick-Buena Vista Hills is a matter of personal observation. The position of the axis of the anticline in the McKittrick Hills,—that is, the eastern end,—is a matter of exact determination on the ground. The indication of the anticline and synclines upon the map, the ones that I have indicated, is the result of my own investigation, and the others are taken from other maps. A portion of these were taken subject to verification and correction from field investigation, from the map prepared by Ralph Arnold and Harry Johnson. I was chairman of the oil Land Classification Board of the Geological Survey and, as such, had to classify the land on the map,

and I discussed the map (Plaintiff's exhibit "I") with Mr. Arnold. [9]

S. G. DROUILLARD, a witness called and sworn on behalf of the plaintiff, testified as follows:

DIRECT EXAMINATION

I live in Inyo County, California, and am in the bee business. I have prospected and mined most of my life, having been in the mining and prospecting business something like thirty or thirty-five years. I was engaged in the oil business from 1899 to about 1904. I have made mineral locations in Kern County. I have forgotten the townships and ranges that I located. I located some land in Midway; some in Temblor; some in McKittrick; and some also in what is called Elk Hills, which we called at that time Buena Vista Hills. We located these lands for oil. That was in 1899, I think. I am acquainted with the outcroppings of oil sands [10] or oil seepages in that country. I have seen oil outeroppings or seepages. I disremember the section it was on, but it is between two and one-half and three miles a little south of west of the old "Headquarters Ranch" where the bridge crosses the slough—right here (witness indicates place on map). We got all our water from that place. That would be on section 15 in 30-24. We found the outeroppings of oil sand; gas and sulphur mixed with it. I disremember how extensive it was, but it was quite a belt of sand cropping. We did some work on it; a little, but not much. We stopped there an hour or an hour and a half after we located it. On the strength of these oil seeps was the reason

we located the land. Associated with me was Jim Wagy, S. M. Wagy, Charles Lemont, Thomas Baker, Jeff Packard, John Jean, and others. I have been in Kern County since 1854 and have been over in this oil field many times during that time. I worked for Miller & Lux there on the range. When I first remember that country, the first development work that was ever done there was done about three miles north and west of McKittriek at a location at that time called the Bond Spring or the lower San Maria Spring. There was a small derrick put up there at that time by a man named Bond. That was along in 1874 that I saw it. Of course, Bond had done some work there before that time. In that year, oil was running out of Bond's well. He had a well sunk there. This was three miles from McKittrick, being northwest of McKittriek on the same antieline. I know the country along the contact there from McKittriek as far south as Sunset, along the eastern flank of that range. I located Midway land for E. J. Boust. I have noticed oil seepages along that contact going down to Sunset. I noticed it in two places; one I think was on section 26, that I located. I forget the township and range. It was called afterwards the Mount Diablo Oil Company. Along the contact between the McKittrick formation and the Temblor Range, running between McKittrick and Sunset, there is quite a lot [11] of what we called at that time Brea. We called it asphaltum. In its essence it is asphaltum. That would be about six miles from Sunset. Northwest of Sunset is where I made these locations

for myself. I located sections 24 and 26 for myself. The balance of the land I surveyed for Mr. Boust. Those locations were made upon the strength of the discoveries that I have spoken of. I know of further seepages in that country of my own knowledge. I found quite a lot of seeps outside of that. I found seeps west of McKittrick, north and northwest. I found oil croppings northwest of McKittrick, right through to Canary Springs, which is north and west of Temblor. To our locations, we called it six miles northwest of McKittrick. I know of seeps in 32-23 near the corner of 23, 24, 25 and 26, in the Midway. That is where I located. We found great blocks of asphaltum there. We lifted some of them up and there was oil on the under-side of them, seeping out. You could turn up a block of it and find the drips of oil. Of course, on the surface it was evaporated. I disclosed my discovery on the Elk Hills to a man named Charlie Lamont. He is one of them mentioned as my associates. I was surveying that ground for Boust and Lamont was working for me. When I went out with Lamont and located lands, our location covered the seep in Elk Hills. Our locations covered seven sections, if I remember right. I was there in 1874 where that seep was. The sand at that time was wet from oil. It would adhere to the hand when you would squeeze it together. There was a prominent smell of gas. We found other seeps north and west that we compared with it, with our instrument, and it would hit the Elk Hills. We supposed it was an anticline. That anticline was running parallel

with McKittrick and that would be southeast and northwest. When I went over this oil seep in 30-24, at the time I took Mr. Lamont over there and went in with my associates, the sand was dry. I regarded the Elk Hills at that time as oil territory. The formation was exactly like the balance of [12] the country that had oil in it. It was generally regarded in that country by competent oil men as oil land. I rode over these hills hundreds of times. I worked there, running cattle over them. Those hills have no value for crops. Early in the spring of the year, I suppose for about two or three months, the land has some value for grazing purposes. The nature of the soil there is phosphate, gypsum and Fuller's Earth. There is no possibility of water for irrigation purposes on those hills, unless you could get it by artesian wells. There is no surface indication of water. The surface of the country in the hills is badly broken, cut up pretty badly by small, short canyons. I never saw any Southern Pacific people in there in 1899, in the Elk Hills. I know a man by the name of Treadwell and one by the name of McWhorter. I never saw either one of them in the Elk Hills in 1899, but I saw them in McKittrick. In those days we called the Elk Hills the Buena Vista Hills. The group of hills which is shown on the map as the Elk Hills and the group of hills known as the Buena Vista Hills were in those days altogether called the Buena Vista Hills, without distinction. The oil seepages along the Temblor Range on the east flank which I discovered on the way down to Sunset, between McKittrick and

Sunset, I discovered in 1899; that is, as near as I can remember. The oil spring which we called the Bond Spring was known in that community there for floating oil. When I was working for Miller & Lux Company we would drive the horses up there and doctor them. We would wash their backs off with this sulphur water and then oil them and turn them out on the range and hold them there until their backs would heal up. We used the oil out of the springs, coming naturally from the ground. There were holes dug there. I first noticed those springs, to know that it was an oil spring, in 1874. Of course, we knew it was oil then, but we didn't know the value of it. [13]

CROSS-EXAMINATION OF
S. G. DROUILLARD

I was in Bakersfield in 1899 and in 1899 I was locating oil lands at Temblor, McKittrick, Midway and the Elk Hills. The location that I made in the Elk Hills—I do not recall the name of, but the people who were with me were Charlie Lamont, W. S. Wagy, J. E. Wagy, and Tom Baker, and others. I ran the instrument and surveyed the line. It was the outcrop of oil sand that caused us to locate thereon. I remember making a location on November 8, 1899, together with Mrs. Stella Packard, F. A. Tracy, J. J. Packard, Mrs. Annie Baker, T. A. Baker, C. W. Lamont. This location was made in the Elk Hills. It was between two and one-half and three miles in a southwesterly direction from Miller & Lux's Headquarters Ranch, Headquarters Ranch being where the present ranch house is now located, two or three

miles east of Button Willow, south and east. I do not know what township the location was in. I have forgotten the ranges and townships. I knew it at the time I made the location. I plotted the land as I located it, but I lost my plots and have forgotten the townships and ranges. There were two surveys on the land before we surveyed it. We found an old survey and a new survey; that is, the stakes showed that they had been there for a number of years, but whether or not it was a Government survey, I don't know. It did not look like it had been surveyed for over three or four years. Mr. Thomas Baker prepared the location notices. I saw them. We understood that it was unsurveyed land at that time. I do not remember whether the location specified that the land was unsurveyed land. I know that it was our understanding it was unsurveyed, although these surveys had been made on it, but whether it was Miller & Lux's survey or the Government's survey, we didn't know. The point on Government exhibit "I", marked "Miller & Lux Ranch", on the canal [14] is the one I referred to as the Headquarters Ranch. The location I made on November 8, 1899, is indicated by a point near where the red mark is above the "I" in red lines, in Section 32, Township 30 South, Range 24 East; also in 29, 30 and 31. We located in a group there. On the same day, November 8, 1899, I, together with my brother and T. J. Packard, Mrs. Annie Baker, F. A. Baker, C. W. Lamont, M. S. Wagy and Mrs. Stella Packard, located a claim known as the Pelican Oil Company No. 18, adjoining

the other claim located on this same day. We located them all in one group; it was in the same township. On the same day, I, together with my brother, Mrs. Annie Baker, F. A. Baker, C. W. Lamont, M. S. Wagy, Mrs. Stella Packard and T. A. Tracy, located a claim known as the Pelican Oil Company No. 21, adjoining onto these other claims, in the same township; and on November 9, 1899, in the same neighborhood, in the same general vicinity, we located Pelican Oil Company No. 24; and on the same day, in the same township, we located Pelican Oil Claim No. 27; and on the same day, with the same people generally, in the same township, or in the same neighborhood, we located Pelican Oil Company No. 28; and on November 28, 1899, with the same people generally, we located Wagy Oil Claim No. 2, right in the same vicinity. This last claim may have been situated in Section 21, Township 30 South, Range 24 East; and on the same day, with the same persons, we located Wagy Oil Claim No. 3. I could not say whether it was in the same section or not; I think it was. I think it was Section 21. When we were making all of these locations in the month of November, 1899, we supposed we were in Township 30 South, Range 23 East. I would not say what range it was now because I have forgotten; but at that time I knew the range and township we were in. Looking at Government Exhibit "I", I think it was on Section 32, Township 30 South, Range 24 East, that we first found the oil seep. I locate the point on this map where we found this oil seep by the position of the Miller & Lux Head- [15]

quarters Ranch, as I am very familiar with the country without reference to section lines. I know the country pretty well, as I first commenced to work there in 1874, riding over the range for Miller & Lux. At that time I saw no prospecting there. I worked in the vicinity of that range about four years. My work carried me all over everywhere. We were riding after cattle scattered all over the country. I had occasion to go into the Elk Hills, where we would do most of our work in the spring of the year, gathering cattle in off the Elk Hills. They grazed there in the spring, early. There were also some elk in there grazing, and there are some few elk there yet. About 1878 I left there and went into the northern part of the state; into Modoc County. I returned into that vicinity in 1893. Between 1893 and 1899 I went into the Elk Hills several times hunting. I went in there possibly once a year during that time. During that time I saw no one in there prospecting for oil. What induced me to go back into the Elk Hills in 1899 was I heard that they had found this oil seep there. I first saw that oil seep in 1874 when I was working there at the Headquarters Ranch. That is not the same one I referred to which we used for rubbing horses' backs. In 1874 I got down and looked at it and felt of it and there appeared to be a little oil or something in it—"gumbo" we called it in those days. It had a distinct odor. There seemed to be lots of gas in it; it smelled gas and sulphur. It was petroleum gas. I know what petroleum gas is. At that time the seep was wet. It would adhere to the hand and we

would pick it up and ball it up and it would stick to your hand. We dug in it possibly four or five inches. There was no water there at that time. This was in the spring of 1874. I was at the seep once in a while afterwards while I was employed riding through the land and the seep remained in the same condition. The last time I saw it was in 1899, when I located it, at which time it was dry. We dug down about two feet into it. We found **[16]**—the gumbo—the sticky stuff—the same as I observed in 1874. It would adhere to the hand. I never had any tests made of it to determine whether or not it contained petroleum. I do not know if any test was ever made of it. In fact, after I located that land, I never went back on it any more. The only work we did on the lands was surveying them out. The other boys went back and done work on them afterwards. I don't know how much. I never had anything to do with the land after I located it. I located the ground in 1899 because I thought it would be oil land. I located it as a prospect. It looked as good as any other land that was in the country. The land I have testified to was generally regarded by competent oil men as oil territory in 1899. Every one that saw it said it was good oil land —people that were supposed to be oil men. The only man that was in the country at that time that was an oil man was Mr. Youle. I showed him some of the sand and he said it was oil sand. If we had anything to examine we took it to him, he being an oil man. My conclusion that the territory was generally regarded by competent oil men as oil territory is not based

upon the statement made to me by Mr. Youle from the sample of the sand that I gave him; we formed our ideas because it was the same formation as the whole entire country there was. It was gypsum, shale, sandstone and splotches of sulphur all over there, so we supposed it was good oil land. That is why we located it. There were several men there who pretended to be good oil men who pronounced it good oil territory. Wagy, my cousin, who is in the oil business a good deal, said it was good land. Lamont said it was good land, and Tom Baker and Packard claimed it was good land, and they were interested in it. I regarded it as good oil land, but it was withdrawn and we had to leave it and did nothing with it. I was in the oil business there from 1899 to 1904 or 1905, when I left. In 1899 the territory lying west of the place where we had our claims located in the Elk Hills [17] was generally regarded as oil territory by all the people that had located in there, amongst which number were Mr. John Jean and, I think, Mr. Treadwell and Mr. McWhorter. I remember hearing people, prior to 1904, state that the Elk Hills to west of the point where our claims were located was oil territory. There were quite a lot of claims taken in there, but I couldn't tell you who it was located them. Mr. Lamont and Mr. Wagy told me that it was all oil territory in plumb through there. That was before 1904 and after we made our locations in 1899. There were other parties who went out after I had located west of me. There was Mr. R. R. Wagy, J. R. Wagy and a company of them.

They located right adjoining onto us on the west. I think a man named Anderson was interested with them. To the best of my recollection, they abutted onto our land, the land I had located, to the west and south of us. I think they were in the same township. The continuation of the Elk Hills four, five or six miles to the west of our location was considered good oil territory by most everybody that talked about it. I have heard several speak of it as being good oil land, but I disremember who, as I can't remember so far back. I remember one man by the name of George Brown. He had a lot of locations in there in the Elk Hills, or the west end of them. He told me he had located some land or company in there and that he thought it was fine territory. This was over in the west end of the Elk Hills. I cannot tell you where he did locate; I never knew; but that he had located in that range some place. The Elk Hills were supposed to be in the oil belt and all of the ground that was in the oil belt was supposed to be oil land.

RE-DIRECT EXAMINATION OF S. G. DROUILLARD

I think we located seven sections in all, but how we located them I forget now. The anticline ran in a direction which would take it generally through the center of those hills. In [18] going from the seep in the eastern part to the other seep, you would go in a westerly direction. If we located four sections in township 30-24, the other sections of land were contiguous to the west of the locations and that would bring them into the next township. When I replied to Mr.

Lewers' question as to what townships we were in, I was not certain; I told him I had forgotten them. I remember the other three sections joined on the west of the four sections we first located, as we commenced here (indicating) at that seep and ran west from there. The order of withdrawal of the lands from disposition was a consideration for my leaving. Mr. Youle was considered an oil man. He had been working in the oil fields for a good many years. His headquarters at that time were at Sunset. He was superintendent for Jewett & Blodgett, or the Standard Asphalt Company. I regarded him as an oil expert. When I took those oil sands to him he was in Bakersfield. He told us it was a dry oil sand. He said it was a good indication. We thought the entire bunch of hills known as the Elk Hills good oil territory. All the people regarded the entire bunch of hills as good oil territory. 30 South, 23 East, is located in the middle of the Elk Hills and was regarded as good oil territory. That is the reason we located it. At the time I located those lands I knew the townships and ranges. There had been a survey made and it was sectionized and every corner marked, but we understood that it was unsurveyed land at that time and that is why I caused it to be surveyed. At the time I made the notices I knew of the land I was on as the land was marked, all surveyed out and sectionized, but whether it was a Government survey, we did not know, but we were of the opinion that it was unsurveyed land and we located it as such, but we got the townships and ranges all right.

RE-CROSS-EXAMINATION OF
S. G. DROUILLARD.

That oil seep was in Section 32 and I fixed that point [19] by its distance and direction from the Miller & Lux Headquarters Ranch. That is the only way I can now do it. It is hardly possible that that was away over there in Section 32 in the other township. I think we got our location all right. When I testified that I located one claim on November 8 or 9, 1899, in Section 21, that claim was between three and four miles from Miller & Lux's Headquarters Ranch. It was in a southwesterly direction. Our locations were all in one group, they were not scattered out at all, and if our location notices read Township 30 South, Range 23 East, it was intended to represent the location on Section 21. We made seven or eight locations, but they were all abutting each other. I disremember whether those locations were all in Section 21 or whether four were in 23. I think two were in Section 25. I do not remember whether we went further west than Section 21. Prior to December 12, 1904, the territory delineated in red hatched lines on exhibit "I" was considered as good territory. I testified that the west end of those hills where we located there, were considered good oil land. Six miles west of where I located was considered all oil land, the whole territory there; that is, we considered it was. We were not experts, but we considered it good oil land; that was the general supposition. I can't say that I ever heard any expert or competent oil man say so, but I had an idea myself that it was good oil

land. I knew by the general formation. I found the anticlines was on Section 5. It was north of McKittrick. There is an oil sand cropping there; that is in 30-22. I located this on the McKittrick Oil Company's land and we located that section in there and found an oil anticline. We supposed it was there so I put my instrument on and sighted both ways to catch the belt over here and catch it over there (showing) and I did catch it and I located land over there on it and land here on it. I found the anticline still west of Section 5 over in the Templor. It was indicated there by oil [20] cropping, asphaltum, oil sand. I observed stratification that led me to believe there was an anticline. That stratification was dipping to the south and running in a northwesterly and southeasterly direction. We supposed it was a parallel anticline to the McKittrick.

JOHN JEAN, a witness called and sworn on behalf of the plaintiff, testified as follows:

DIRECT EXAMINATION

I am a plumber and gas fitter by trade. I lived in Bakersfield in 1900; from October, 1899 to 1900. While I was living in Bakersfield, Charlie Lamont showed me some oil sands purporting to have been brought from the Elk Hills. He took me out where these oil sands were found. The point was between two and four miles from the Miller & Lux Ranch, in what was in those days called the Buena Vista Hills; I did not know their name at that time as the Elk Hills. They were a large group of hills running from Buena Vista Lake towards McKittrick, north of the

other group of hills at the foot of the lake. When I went over there with Lamont, I struck the oil sand. It was a black, coarse sand; dry oil. I think we struck about three feet of oil sand, three feet in depth. Approximately you could see a hundred feet in length and breadth at one point. It looked like dry oil, burnt sand. That was southwest from the Miller & Lux Headquarters Ranch on the canal. I don't know what township and range it was in. That was in 1899. I did not report that discovery in the Elk Hills exactly to the Southern Pacific Company, but to their representative, I suppose, who was Mr. L. G. Sarnow and J. B. Treadwell. To the best of my knowledge, Mr. Treadwell's position with the company was that of Chief Engineer, or oil geologist. I talked with him about his connection with the company. He said he was the head of the Oil Department of the Southern Pacific. **[21]** He was in charge at that time of oil developments at McKittrick. He had men in his employ digging wells and doing other things of that sort. Mr. L. G. Sarnow was an oil driller. I accompanied Mr. Sarnow and Mr. Treadwell out to these oil sands to show them to them. That was in 1899, I think. We went out there on horseback from the Miller & Lux Headquarters on the canal. Mr. Treadwell and Mr. Sarnow examined these oil sands at that place. Mr. Treadwell said it looked good. Mr. Sarnow said it looked good but that he thought it was deep territory and very expensive. On the strength of that discovery, I, with others, made locations of the lands about there. My associates were Mr. Sarnow and

Mr. Treadwell. Think we located on Section 31, near the oil seep. That would be, I think, in the section adjoining the section on which the oil sand was located. I think we located one section. We made no other locations. I have been over that country pretty well through the Elk Hills. The general formation of the surface is broken. It reminds me of an ash pit; you step on it and down in you go. As to vegetation, on the hills there is some sage brush, a little now and then. I do not remember noticing any feed for cattle there. Part of it might be susceptible of agricultural development and part of it was not. I guess grass would grow on all the hills. I don't know whether you could raise crops; I never saw it tried. The angle of the formation dipped to the northwest; I don't know how many degrees; I don't remember. I was in the employ part of the time of Mr. Sarnow and part of the time in the Water Company.

CROSS-EXAMINATION OF JOHN JEAN.

I think I was there in September. At that time of the year the hills are pretty brown, so far as grass is concerned. I don't remember ever being there in the spring of the year. I made those locations on Section 31 in 1899, I think. I did no work [22] on that claim. No work was done on the claim, to my knowledge. I never paid any assessment for work done on it. I never heard of any work being done on the location. I have never been there at any time since. Mr. Sarnow said that country gave indications of being very deep. I made inquiries and had knowledge at that time as to how deep wells could be sunk

with the appliances then in vogue. They could be sunk 1600 feet. There was no limit, I believe, as I understood it, to the depth of a well at that time. I never heard of any wells at that time being sunk to the depth of 5000 feet. I heard of a well being sunk to a depth exceeding 2500 feet. Mr. Youle told me about it. I never saw it. He told me where it was, but I forget now. He told me they went 3300 feet, I believe. That was regarded as an unusually deep well at that time. Mr. Sarnow said he thought this would be very expensive territory. It was looked upon as a possibility and for that reason I located it. At that time there had been some other oil developments in the surrounding country and a number of miles away at Sunset. I do not think there was anything said about making this location as a bare chance of holding the territory to be disposed of. I expected to drill, but made no preparations or inquiries with reference to drilling. I gave up my expectations on account of lack of finances. Mr. Treadwell was associated with me in the location of the land. So far as I know he gave up when I did and Mr. Sarnow also. After making the locations I never went back to the land. I never sold any interest in my claim and never tried to. I just gave it up.

REDIRECT EXAMINATION OF JOHN JEAN

When I was in the employ of Mr. Treadwell and Mr. Sarnow over in Bakersfield, I was paid by check; I think on the Bank of Bakersfield. Mr. Sarnow would sign the checks. Mr. Treadwell [23] came out where I was working under Mr. Sarnow and he lived

there. That was in the course of his business. The Elk Hills at the time I found the seep over there and for the ensuing period of time up to 1904, I wouldn't say were good oil territory, but it was regarded as oil territory. I regarded it as such or I would not have made locations.

RE-CROSS EXAMINATION OF JOHN JEAN

I really, seriously regarded it as oil territory. The reason I did not hold on to my locations was because I did not have money enough. I never did any work on my locations. I had no money to do any work. I made attempts to borrow the money to do the work on it and I tried to interest someone in the location, but did not succeed, even though it was a promising oil location. It was not possible to get people interested in the oil business. They did not regard it as favorably as I did. I know something about the territory lying west of where I made my location as far as Asphalto. I don't know whether there was any asphaltum immediately to the west of my location, except up around Asphalto and up around Midway and Sunset. Going directly west from Section 31, a distance of six miles, there is no asphaltum that I know of. That would bring you up to McKittrick. I never made any locations in there. I don't remember anyone or anybody else making any locations immediately to the west of ours. I heard people discuss the territory lying just to the west of our location between the Elk Hills and Asphalto. Beginning just to the west of our location in Section 31, Township 30 South,

Range 24, and extending over a distance of six miles to the west, I heard W. E. Youle speak of that territory. He told me it ran from Buena Vista Lake to Sunset, Asphalto to the Buena Vista Hills. He told me that he was drilling in Sunset, and I asked him why he did not go into the flat, and he says: "We don't want light oil and if we go there we will get it. **[24]** We want asphaltum." I am referring to the flat northwest of Sunset. It runs clear over to the Elk Hills, "Buena Vista Hills," we called them. Mr. Youle never used the word "anticline." He said light oil runs there. I don't know about the township and range by 30 South, 23 East, but he told me it run from hill to hill. Specifically, he said it ran from Sunset to McKittrick and from Sunset up into the Elk Hills. He told me from the lake clear through to the hills, from hill to hill. He told me about the oil sand after I had seen it. He told me before I had ever seen or heard of the Elk Hills oil sand; this was in 1896. He told me of indications of oil other than those so-called oil sands, but not in the Elk Hills. He never told me about the Elk Hills, but just said it run from hill to hill, and he says: "We are after asphaltum and not oil." He did tell me if you go into the Elk Hills you will find oil anywhere north of the line between Sunset and McKittrick. I don't remember that he told me oil had been discovered or was known to exist anywhere north of that line.

RE-DIRECT EXAMINATION OF JOHN JEAN

Mr. Youle said that from Buena Vista Lake through the hills to the other hills where McKittrick

is, and from Sunset north to McKittrick through that flat, there was oil. We drilled in Sunset; and while we were drilling there and every time we would go down the hill towards the flat, we would get light oil, and we abandoned those and came up the hill. Then, when we could not get much asphalt in Sunset, we moved over to Asphalto and done the same thing there. We would drop down the hills and then back up again. Mr. Youle told me this, to the best of my recollection, in 1896.

LUDOLPH G. SARNOW, a witness called and sworn on behalf of the plaintiff, testified as follows: [25]

DIRECT EXAMINATION

I live in Los Angeles and am the same L. G. Sarnow referred to by Mr. John Jean. I was at one time employed by the Southern Pacific Railroad. I had charge of the McKittrick; and then I moved up to Kern River and had charge of the field there. I had charge of the field, and was drilling by contract also, on the side. I was in charge of the field. I had about seven years' experience in the oil business before that time. I had drilled some wells in Summerland, California, and in this field and Half Moon Bay and the first wells in McKittrick, I believe that we drilled the second well in the Kern River field. It was a producer. I believe we got the first oil in McKittrick, although we didn't perforate the casing. We plugged the well. I am very well acquainted with J. B. Treadwell, mentioned by Mr. Jean. He had charge of the oil division of the Southern Pacific.

He was a competent oil man. He hired me at Summerland. I was drilling there. We shipped up two drilling rigs and a carload of casing at that time. He ordered a lot of lumber shipped up from Summerland to McKittrick. There were not any houses there then. We landed in McKittrick, I believe, on the 12th day of May, 1899. The Southern Pacific Company brought the freight free of charge and we went to work in the McKittrick field and we drilled two wells on the hill and then went to the north end and drilled a well there and then I went to the Kern River field to my brother. My brother went with me from Summerland to McKittrick. He is a practical oil driller and oil man. Mr. Jean was hired by me and sometimes he worked for me on the rigs and sometimes he worked in the field. He was acquainted with Mr. Treadwell and it was through Mr. Tread well, I believe, that I got acquainted with Mr. Jean. While I was working for Mr. Treadwell, operating in Kern County, I believe I drilled thirty wells in the Kern field and three in the McKittrick field. The formation of the Elk Hills is shale, gypsum, and sand. It is substantially the same formation [26] over in the eastern flank of the Temblor Range. I have been in the Elk Hills and have located some claims there. The reason I located claims there was because Mr. Jean showed me some sand and I wanted to know where it came from and he told me it came from near Miller & Lux's Headquarters Ranch. It was a coarse pebble oil sand and I was interested in it when he showed it to me. It looked good. Mr. Treadwell saw

it and we arranged to go the next morning. I believe Mr. Jean showed it to me in the afternoon and I met Mr. Treadwell and we arranged to go the next morning, and we took a gasoline motor to come back on. We went out to the point that he showed us in the hills where he got the sand. First we went to the Headquarters and stayed there that night and then in the morning we drove over in the hills. I cannot remember just what section, township and range it was in. I don't know. It was about in a southwest direction from the Miller & Lux Headquarters. I would think it was about a twelve mile ride that day over and back. That would make it about six miles over. I think it was the same oil sand that Mr. Jean referred to in his testimony. I don't know of any other. Apparently it was a blow-out. There was an anticline that came to the surface in a way. It was just the same as you would find in Temblor. They are just similar, I believe, in a mining way, to what they called a "chimney," or something that way; a sort of a blow-out. That was what we called it. I thought it was deep. By deep I would mean somewhere between sixteen hundred or fifteen hundred to two thousand feet, or probably somewhere in that neighborhood. That was my idea of it. I thought it was good for oil, but I don't want to be held up as an expert on oil. That is just an opinion as a man. Mr. J. B. Treadwell was with me. He is a minerologist. He thought it was good for oil, but he had the same idea that I did, that it was deep. On the strength of that showing, Mr. Treadwell and Mr. Jean and I lo-

cated the land. With reference to that oil sand, we did [27] not locate just on the sand. I remember the sand was on one side of it and we seemed to figure that it came from the McKittrick or Temblor and we took the land that we thought to be in the strike; just which way it dipped from there, I don't remember. We located quite a number of claims. I don't remember how many. We had a great many names; I believe sixteen located with us. We located more than one section, but I don't remember how many acres there was in the claim, but it seems to me that we made four or five different claims, but I am not sure as to the number. I don't know whether Mr. Treadwell reported to the Southern Pacific Company of the mineral discovery there. He was looking after their oil claims at that time. Whenever Mr. Treadwell found anything that looked like oil, he had small maps, a little stack of them, which had all the townships and ranges printed on them, and if he found any oil he would take one of those maps and paint in on the little map and then file that and put it on a stack, and he had a big map and he would mark it on this big map, that is, the oil indications. Where there was a gypsum deposit, he would mark it with one color, or oil blow-out or this sand in another color, and asphaltum in some other color. I don't know anything about Mr. Treadwell's agreement with the Southern Pacific Company, but my understanding of the thing—

Mr. Lewers: I object to any testimony as to the witness' understanding; not responsive.

A. Well, I would not be able to—

Q. By Mr. Mills: Go on with your answer.

A. My understanding was that he was employed by the Southern Pacific, and that anything that he would locate or acquire in any way would belong to the Southern Pacific. Just how I got that I don't know; but Mr. Treadwell and me used to sleep together in the same room.

Q. Well, I can easily understand how you might get it by percolation [28]

A. And I don't know just how. But that was my idea of it or understanding of it.

Q. Did the Southern Pacific Company establish any credits in the bank at Bakersfield or other banks for Mr. Treadwell to deal in oil lands on?

A. Well, not that I know exactly for what. He would get a letter saying that "There has been $15,000 deposited—"

Mr. Lewers: To which we object, on the ground it is calling for secondary evidence, and not the best evidence. If there are any letters, we ask that they be produced.

Q. By Mr. Mills: Those letters are not in your possession, are they?

A. O, no; but I have seen them.

Q. Go on and tell what you saw in the letters.

Mr. Lewers: We renew our objection. It don't remove the lack of foundation that they are not in the possession of a particular witness. It is not the best evidence.

A. He showed me a letter where the Southern

Pacific had deposited $15,000 to his credit, five thousand in one bank, and I believe in the Wells-Fargo bank.

Q. By Mr. Mills: What city?

A. San Francisco. And another in some other bank, and five thousand in the First National down here.

Q. In Los Angeles?

A. In Los Angeles. Two, five thousand each, was in San Francisco, and one five thousand was here. And he would make up his expense account and check against that.

Q. Do you know whether his employers had confidence in his judgment as to oil lands?

A. Why, yes sir; I think they did. I met Mr. Kruttschnitt and Mr. Huntington down in the oil fields, and they undoubtedly, from the way they spoke, had great confidence in his [29] opinion.

Q. Who was Mr. Kruttschnitt?

A. I don't know just—He was the head of the Southern Pacific.

Q. Was he at that time vice president or president of the Southern Pacific Railroad Company?

A. It seems to me Mr. Huntington was president at that time, and I don't know just what office he held now, I don't remember.

Q. Were they officials connected with the Southern Pacific Railroad Company?

A. They were officials of the Southern Pacific Railroad Company and they would come down and inspect the field.

Q. They would come in around McKittrick and in this field generally?

A. Oh, yes; Kern field and McKittrick. Mr. Kruttschnitt would go around with me a great deal. When he come he would always leave the bunch and ask me to go around and show him everything.

Q. Where have you taken him?

A. Oh, in that field only. Right on Section 3—He would never go off the section—in Kern field.

Q. He was down there looking into the—

A. Looking at the wells and the oil.

Q. What year was that that Huntington and Kruttschnitt were down there?

A. I would say that was in the early part of 1900. Just what months, I don't remember.

Q. You were in there in 1904, were you?

A. No.

Q. What year did you leave the McKittrick field?

A. I believe I left some time during September, 1899. [30]

Q. Now, prior to that time, at any period—immediately prior to that time—with the knowledge of the formation of the Elk Hills, its comparison and similarity to the general McKittrick formation along the eastern flank of the Temblor Range, the development of oil sands by actual drilling along the Temblor flank from Sunset to McKittrick, the oil seep that you have mentioned in the Elk Hills, and such other evidences as were plainly conspicuous, upon the ground, of oil character, will you state whether a competent geologist, in your opinion, would have recommended

the investment of money in the Elk Hills with the reasonable expectation of developing paying oil property?

MR. LEWERS: To which we object, on the ground that no foundation has been laid; second, that the question is based upon a hypothesis which is not supported by the evidence already introduced; and, third, on the ground that it is calling for the conclusion of the witness as to what somebody else would conclude from indications and not upon the opinion of this witness who has already testified that he is not an oil expert or competent geologist; and, fourth, upon the ground that it is calling for an illegal test as to the character of mineral land, in that it does not call for a determination of whether or not the land in controversy or in question is land containing mineral in sufficient quantity to warrant its extraction to an economic profit. And we object, in addition thereto, upon the further ground that it has not been shown in evidence, and is not a fact, that petroleum is a mineral, first, within the meaning of the Act of Congress granting the land to the railroad that is not involved in this suit, and, second, that it is not a mineral within the Act of Congress or within any recognized or established meaning.

A. Yes sir.

Q. By Mr. Mills: Did you notice—

A. Let me ask you one question there. "Prior to that time." Prior to what time did you mean? [31]

Q. Prior to the time you left there.

A. Oh; yes sir.

Q. Any time before you left there?

A. Yes sir.

CROSS EXAMINATION OF LUDOLPH G. SARNOW.

I don't remember of any competent geologist who recommended the Elk Hills as a place that would be worth prospecting for oil. I base my answer that a competent geologist would so recommend because I thought so. That was only my opinion of what he might say. I never took Mr. Kruttschnitt into any portion of the Elk Hills. I never left Section 3 with him in the Kern field. That is about twenty-five or thirty miles, as the crow flies, from the Elk Hills. I never examined the territory lying immediately west of our location and I had no personal knowledge of it as I had never been in the hills in that neighborhood west of our location. I had never heard of it being considered as proven oil territory, but so far as I heard it was considered as promising oil territory. It looked good here. I am basing my conclusion upon the blow-out down near Section 31 and not upon anything else. There were three traces of blow-outs off a little further to the west, but not as prominent as these others. They might have been in Section 30 to the north. I would not say, although it was right next to where we located. That is as near as I can get to it. I never had any tests made of that material. I didn't need any. I didn't think so. That was oil. I don't think it was possible that I was mistaken as to that containing oil, although I wouldn't say it is not possible. I have never known of similar blow-

outs being tested by chloroform tests and showing nothing. It might be so, but I have never seen any. I did no [32] work on that location an I never re-located it. I abandoned it. Oil went down to nothing. It was not worth anything. It sold in the Kern field for seven cents a barrel and there was not money enough in it to drill for it. I had no oil in Section 31 where the blow-out was. I based my judgment of the depth of probable oil discovery from the looks of the field. I had an idea that the depth was from fifteen hundred to two thousand feet, but it might have been deeper. Possibly not so deep, but I don't know. That was just an opinion. It is possible that a blow-out of that character wouldn't show any oil down below it at all. I don't know anything about the Pennsylvania fields. I never was there. But it was a cinch where this blow-out comes from that there was oil there. Without any test, I don't hesitate to say that. Even if samples taken from this particular blow-out show that there was absolutely no oil in it, I would gamble ten to one it was oil even though anyone said it was not. If tests were made by competent and disinterested persons according to the best approved methods, showed absolutely no oil, I would still say that it was a cinch that there was, because I seen the sand. I happened to see this particular sand. Mr. Treadwell did not re-locate this land, as oil was not worth anything. He was employed by the Southern Pacific Company during all the time that I was with him and a long time after that. I don't know whether it was the Southern Pa-

cific Railroad Company or the Southern Pacific Company. I rode on passes. I would telephone to Mr. Burkhalter and give him the name of any man I wished to pass to any place and return, or for myself or anyone else, and the pass was issued, but I don't know whether they were furnished by the Southern Pacific Company or the Southern Pacific Railroad Company, and I received vouchers from them for thousands of dollars at a time but I don't know from which company. Mr. Kruttschnitt was at the head of the whole Southern Pacific Department, but just what office he held I don't [33] remember. I have no definite certain knowledge as to what position Mr. Huntington and Mr. Kruttschnitt held or just what company they represented. It was my understanding that whatever Mr. Treadwell located was located for the benefit of the Southern Pacific Company. I never saw any correspondence between Mr. Treadwell and any officer of the Southern Pacific Company to that effect, and that was a general understanding that I reached through my associations with Mr. Treadwell and in no other way, and it is not based upon any exact knowledge. It is merely suppositions that I formed. I don't know just how I got that but that was my opinion of it. That was the impression I had. Referring to the letter to Mr. Treadwell concerning the deposits of money in certain banks, I don't remember by whom that letter was signed. I saw the letter itself. It was on a yellow piece of paper. I made no report directly to any person other than Mr. Treadwell. I took orders from him and him

only. From 1899 to 1904, the general impression amongst oil men was that wells could be sunk from twelve to fourteen hundred feet in depth. There was a well in Pico canyon above Ventura which I believe was 2600 or 2700 feet deep. The general impression was that with the appliances then existing anything beyond 1200 to 1400 feet was looked upon as economically impracticable. A 4,000 foot well would have cost a fortune in casing alone at that time and would have been regarded as prohibitive. If a competent geologist had told me at any time up to 1904 that oil could be developed in the Elk Hills at a depth of 4,000 feet, and if I had had the capital behind me to sink a well for oil there, I would not have done so because it would have cost too much. Even if he had told me it could have been developed at a depth of 3,000 feet, I do not think I would have touched it. I might have gone to 2,000 but no further. If he had told me that there was indications on the surface that showed a possibility of oil below which might not be great in quantity and would exist at [34] a depth of over 3,000 feet, I would not have looked upon it as a good business proposition to drill. At that time we were not looking for gushers and did not think there were any. A well might "blow its head off" for a couple of hours and then be a pumping well, and a pumping well would not be profitable at 4,000 feet. Even today I do not think a pumping well that produced no more than fifty barrels a day at a depth of 3,500 or 4,000 feet would pay, and I would not consider a territory containing such wells as a promising oil territory.

REDIRECT EXAMINATION

LUDOLPH G. SARNOW

I paid all the men, every man that was drawing pay in the field, with a voucher and order on myself as against Treadwell; and the Southern Pacific and the Bank of Bakersfield, or any other man anywhere in that country, cashed it. Passes were issued to me over the Southern Pacific lines. Mr. Burkhalter, that I spoke of, who issued the passes at my request, was Division Superintendent at Bakersfield of the Southern Pacific Railroad. [35]

F. D. LOWE, a witness called and sworn on behalf of the plaintiff, testified as follows:

DIRECT EXAMINATION

I reside near Bakersfield. I am a rancher. I am familiar with the portion of the country that is known as the Elk Hills, in Kern County—a portion on the east end. I first visited that locality in the latter part of 1900 for the purpose of making some mineral locations,—I mean oil locations. At that time there was an oil boom or oil excitement on in that vicinity. Some friends induced me to go with them and join them in making some oil locations. I heard of the discovery of oil evidences in the Elk Hills at that time. That was prior to my going there. I never was to the place, but it was spoken of to me as a blow-out, I believe. It was southwest from Miller's old headquarters. I heard various people speak of this blow-out, but not to any great extent. We kept on the east portion of the Elk Hills in Township 31 South, Range 24 East. I went in there in the latter part of 1900.

Mr. J. A. Boehn, C. A. Cochran, Chad Lewis and Mr. D. B. Hoy went with me. We looked carefully over the land to see if we could find anything on the surface that indicated an outcropping of oil sand. Our purpose in endeavoring to find such evidence was to make locations. We did find evidence. The first place that I made note of it was about three hundred yards due north of the northeast corner of Section 11, 31-24. That was in 1900. We found what appeared to us to look like oil sand in a gulch. We found another place similar to that at the center of Section 2 and exactly half a mile east of that point on the section line. Section 2 is in the same township. We found a third indication half a mile east of [36] the section line of Section 2. There we found practically the same thing. These oil sands showed stains and looked as though they were very much dried. It had become very much dried. We afterwards made locations. This was on the morning of the first of January, 1901. We located ten (10) Sections. I don't believe that I can name them by number at the present time, but I can locate them on the map. We afterwards did development work in connection with these locations. We incorporated into a company and levied an assessment and erected an eighty-foot derrick and made a contract with a party to begin drilling. The derrick was erected on the northeast corner of Section 11, Township 31 South, Range 24 East. That was near where we made the first discovery that I told about. The reason we were induced to locate the derrick there was because it was right

at the corner of a section and it was on a natural roadway going through those hills. It was also an ideal place to locate a well, being right at the corner of four sections and if we struck oil there we could easily locate another rig and another derrick and use our same engine. We got down about five hundred and sixty feet and struck small showing of oil and at various times we got gas. We piped the gas, but made no use of it particularly any more than to use it for cooking, which we did, and we piped it to the stove and cooked with it. The character of the ground or earth formation through which we drilled the five hundred and sixty feet was a sort of what we call "gumbo." It was so difficult that we could not make more than two feet a day progress. It would not mix with the water. The formation was a deep blue. It was identically like I had seen in the Kern River field just before they struck oil. I have seen a great many wells in the Kern River field and the character and formation and [37] condition of the soil just before encountering the oil. These wells in the Kern River Fields were paying wells, good wells, and I found the same character of formation in the five hundred and sixty foot well that we drilled out there on Section 11 as in the Kern River Fields. Subsequently we plowed a furrow on the section lines of our locations. In that way we marked them out. We made a road coming from Miller's headquarters. That was the most direct to the ranch. That was while we were drilling. We stopped drilling at five hundred and sixty feet because there was such a general depres-

sion and oil got to be a drug on the market that we couldn't see our way clear to continuing the work. Besides that, the driller was financially embarrassed and we concluded to suspend operations for the time being. We were not rich men. Quite a number of people came out to see us drill. I am familiar with the Barlow and Hill map introduced in evidence yesterday. I have looked it over a good deal. While we were operating there, I met Mr. Barlow in Bakersfield and he called me into his office and he showed me a map which showed our ten sections located by us and our well. The name of our company was the Western Union Oil & Development Company. After we reached a depth of five hundred and sixty feet we were very much financially embarrassed and during the close of the year 1901 we tried to induce further development work in some way by making a contract, but we failed utterly, so we were never able after that to continue the work. We let the locations go by default. They were re-located in 1902. I was one of the locators. It was on the strength of the evidence of oil that I had seen there previously and the drilling of this well that we re-located the land.

Q. Do you know what the general talk and opinion in [38] that vicinity or among oil men at that time was,—that is, in 1900, when you were there, and 1901 and 1902, with respect to whether or not the Elk Hills in general, including the portion of the country that you say you located, and that to the north and west thereof, with reference to whether or not it was good oil property?

Mr. Lewers. To which we object on the ground that it is calling for testimony as to the general impression and is not calling for testimony as to the knowledge of actual existing conditions in the territory. On the further ground that the question is vague and indefinite, in that it does not call for actual knowledge of the existence of minerals in paying quantities, but simply calls for speculation as to what might be in the ground.

A. Yes sir: I talked with people that were in a position in which their opinion was worth something, in my estimation, and they believed there was oil there. Others said, among them C. A. Barlow, "I don't doubt it."

Mr. Lewers. I move that the answer be stricken out on the ground that it is hearsay testimony and not responsive to the question.

Q. By Mr. McCormick. You say they said it was oil land?

A. Yes sir.

Q. What do you mean by that?

A. Well, that there was oil down below the surface if we could just go down after it.

Q. To what extent?

A. Well, they believed it was in paying quantities.

Q. Now, was that fact generally conceded among men interested in the commercial production of oil and in the oil business at that time? [39]

Mr. Lewers. To which we object on the ground that there is no foundation laid that the witness

knows what was generally conceded among such men, and that it is calling for a conclusion. And we desire the former objection to apply to this also.

A. Yes sir.

No prospectus was ever gotten out by our company, but the Lake View Oil Company got out a prospectus and in it they mentioned our company operating and that there was every indication of our striking oil. That prospectus was published about the middle of the summer of 1901, when we were down about five hundred feet. I have been down in the Sunset Fields and looked over them a number of times and the country where we located compared favorably with it. By favorably I mean from the outcroppings and from what I heard further on about there being blow-outs and the lay of the country and the general contour and so forth, I believed myself that there was oil there and was willing to take my chances on it. I am speaking with reference to the country covered by our locations in the Elk Hills.

CROSS EXAMINATION OF F. D. LOWE.

Our well was sunk on Section 11, Township 31 South, Range 24 East. At a little deeper than five hundred feet we encountered the oil. The total depth was five hundred and sixty feet. When the bit would come up, little drips of oil would break and run down in a little streak. I am certain that it was oil. The only test I made was I put my finger on it and smelled it and I looked at it and I ran my finger through it. I didn't take it anywhere to have it examined. No attempt was ever made to pump oil from that well and

we quit because of [40] depression in the price of oil and financial difficulties. We never sunk any wells on the remaining nine sections. All we did was to run a furrow around the sections and make a roadway to the property. We did not see any oil indications in those furrows and that road, but there was plenty of gypsum on the land. We made no use of it. We were not interested in that material and passed it by without any further thought of doing anything with it. We were after oil. We quit drilling approximately in the latter part of 1901. The depression in the price of oil continued for a long time after we lost our possession and I lost my interest. The depression lasted, I think, a couple of years. I don't know what the price of oil was in 1904. Nothing occurred from the time I made my location on Section 11 up to the fall of 1904 to change my opinion of that territory as oil property. I still held to my opinion that there was oil there and I still believed it was good oil country. In 1902 I was at home near Bakersfield, about twenty miles from the Elk Hills. In 1903 I was in the same place and have been there ever since. I was on the land several times in 1902, but didn't go back there in 1903 or 1904. There was nothing to prevent my going back there in 1903 and 1904, but I still retained my opinion of the land held prior to that time. I was one of the parties that helped to re-locate the land in 1902, and although the depression in oil began to be removed some time in 1903 or 1904, I didn't go back, but still retained the same opinion of the character of the land as oil territory. As a matter of fact, I

had a very high opinion of that land as oil territory. Nevertheless I allowed the land to lapse and never went back there. At the time I was in there, the opinion of oil men of this land was good. Their opinion was that there was oil underneath the surface. How far I cannot say, as there were no estimates given. Mr. C. A. Barlow told me he didn't [41] doubt but that it was good oil land. He didn't say that he had made any investigations to determine the depth of it. He did not describe to me the location or position or trend of any anticline in that territory. I talked with the McCutchens about the character of that land in 1901, 1902, and 1903. The McCutchens are drillers and operators there in the Sunset Fields. I talked with Edward McCutchen. I know he had been on this ground. It was while we had possession of it and were operating. He said his opinion of the land was it was good and that he believed there was oil there. He did not state how deep he thought it was. No one ever expressed an opinion to me as to the probable depth of that oil. I made no inquiry as to the depth that oil wells could be drilled at that time with the appliances then available; nothing more than that we had read and had information that wells were beng drilled several thousand feet. They went down two thousand and even three thousand feet in the Sunset Field towards McKittrick. The reason we went back to re-locate in 1902 was because we had a good enough showing there and had spent considerable money on it and I didn't feel like losing my interest. We had done enough work in 1901 to hold it

for the time being, I guess. At the time we quit drilling we figured that we were right close to oil and liable to strike it at any foot on account of the formation and the gas we had and the drips that came up on the bit. I don't know whether that was petroleum gas or marsh gas. We never had a test made of it, only I know that it would burn very nicely. I never tried to burn marsh gas. I took samples of the blue clay to Bakersfield and showed it to a number of people. I think I showed it to Mr. Barlow and another oil man named Mr. Day, and he said it looked great. There were no tests made to determine its character. I don't know what the constituents of this blue clay were. [42]

REDIRECT EXAMINATION OF F. D. LOWE.

When we were down about five hundred feet we struck gas and we lit a paper and dropped it in the casing and when it reached down a few feet there was a terrific explosion.

IRA M. ANDERSON, a witness called and sworn on behalf of the plaintiff, testified as follows:

DIRECT EXAMINATION

I am fifty-two years old and was born in Westmoreland County, Pennsylvania. I am in the hotel business, the garage business and the oil business. I reside in McKittrick, Kern County, California. I came to McKittrick in 1901. The first time I was there was in 1900. I have had experience in the exploration and development of the country for oil and in the operation of oil wells and the development and production of oil. I have drilled all over the country;

in three or four different states. I had charge of property in a number of places. I drilled in Pennsylvania, I drilled in Kentucky, West Virginia, Texas, and California. I have had charge of a number of different properties, looking after different properties; that was in Indiana and Texas. I have drilled in this State. I have been in the oil business ever since I was fifteen or sixteen years of age. I was raised in the oil country. I first went to Kern County in 1899, to Bakersfield. I came from Texas. When I first went to Bakersfield I was loking over the oil fields. I visited the Kern River Field and the Sunset Field and the McKittrick Field. I made investigation and examination of the country as an oil country, with a view to satisfying myself as to its future possibilities as a country in which oil could be produced [43] economically so as to make it a success commercially. The Sunset, McKittrick, and what has since become the Midway Fields are all about the same. There is not much difference in them. I examined them and investigated them. I discovered indications on the surface of the ground that showed that it was an oil country at that time. I discovered some of those evidences between Sunset and McKittrick. I found oil sands all through there and oil seeping out of the ground and gypsum all through that country. Where you find gypsum you will find oil. I found that in Sunset. At that time they were producing oil in Sunset and McKittrick. Between McKittrick and Sunset the formation was about the same. There were these blow-outs through there,

asphalt and oil, and places where you could see what was asphalt around there and gas coming through the center of them. That condition extended generally from McKittrick to Sunset. From my knowledge and experience in oil, it indicated to me that it looked like a good country to get into and invest in. My investigations and explorations extended to the west over into the Elk Hills and Buena Vista Hills to the east. I examined that country. I found shale in there and gypsum and oil sand. I can describe places in the vicinity of McKittrick where I found extraordinary evidences indicating the country to be an oil country, speaking about 1899 and 1900. That was down at Asphalto. That was the name of the station. Then there were indications on Section 34, Township 30 South, Range 22 East. (Witness looks at Plaintiff's exhibit "I" and identifies the place where he made the discovery on Section 34, Township 30 South, Range 22 East.) I found asphalt, oil sand and gas. In the summer when I was through there the sun would melt the asphalt and it raised up and in the center of it there would be gas coming up and if you lit it it would come up like a candle. This asphalt covered over there for probably an acre. These conditions were known in general to [44] the populace around there at that time. It was a matter of common notoriety. In 1899 and 1900 we went to Section 2, the section that cornered on Section 34, Section 2 being in Township 31 South, Range 22 East. I found asphalt in there and oil sand, just the same as in Section 34. It runs the whole way through there in different sec-

tions. When I was in there there were no Elk Hills. We did not call them Elk Hills. They were the Buena Vista Hills. The next place we ran onto it was over in back of the headquarters over in the hills there. I mean Miller & Lux's. I have been along through that ranch from Sunset clear through to the coast and found the indications all the way through there, all the way from McKittrick to Sunset. I have made examinations of the country designated on exhibit "I" as the Buena Vista Hills and I found shale in there and oil sands. I found about the same general conditions as I have designated on Sections 34 and 2. I know where the Elk Hills are. I went through them at that time. I found a shale in there, a brown shale, a clay that lay on top of the sand. I found brea there in the fields, in the Elk Hills. I made chloroform tests of the earth and rock and shale that we found in the Elk Hills. The tests showed oil and oil sand. As to my opinion as to whether or not the Elk Hills was oil producing territory, the formation was there to show that it was. The shale is there, the clay is there and the oil sand is there. I found blow-outs in the Elk Hills. There was a place across from Miller & Lux's headquarters where the gas blew out. This blow-out was eight or nine miles south and west from the headquarters. It was on the east side of the summit line of the Elk Hills, pretty near the top of the line or ridge of those hills. I drilled for Fred Sarnow in three different places on the hill right above McKittrick in Section 29 and we drilled about two miles north of McKittrick; I think it was on

Section 19, and then on Section 6. Sections 19 and 6, I think, were in Township 30 South, Range 21 [45] East, and Section 29 was in Township 30-22. I knew J. B. Treadwell while I was employed as a driller. At that time I understood he was there with the S. P. The S. P. at that time were in there hauling out oil. I don't know what else they were doing. I heard of the S. P. lease in that country at that time. That lease was on Section 29, Township 30 South, Range 22 East. That is the Section 29 that I worked on. I worked on the S. P. lease. I am positive about that description. I was paid by Sarnow by check. While I was working there I lost a finger. I went to a hospital in San Francisco; Southern Pacific Hospital. In going to San Francisco I took the Southern Pacific from McKittrick to Bakersfield and from Bakersfield to San Francisco. I didn't pay any fare. I had a pass. I got the pass, I believe, from Sarnow. I know Mr. Burkhalter. I think that at that time he was Roadmaster of the Southern Pacific Company. I mean the company operating the railroad between McKittrick and Bakersfield to San Francisco. It didn't cost me anything for physician's fees or services or hospital attendance while I was in the hospital in San Francisco. I don't know how it was paid. I paid hospital fees while I was working at these places on this lease in McKittrick. I paid fifty cents a month, which was taken out of my salary. In case of accident or sickness it was to pay hospital and doctor's and medical expenses if I was injured or taken sick while working there. It was

taken from my salary each month. That was true of the other men also that worked on those oil wells. I worked on and off there two or three different times. I couldn't say just how long; not very long at any one time. I started to work in that employment along in 1900. I worked off and on for Sarnow for two years, I guess, or a year and a half, probably. I don't remember whether this fifty cents a month was taken from my wages during the entire time I was working for Sarnow. At the time I took this trip to San Francisco to the hospital, Sarnow [46] was over there at the time. I was in the hospital longer than a month. There were other patients in the hospital at that time; most all people who were working for the Southern Pacific Railroad. There were trainmen and oil men and people working in the field. I went back to McKittrick when I recovered. I didn't pay any fare. I got a pass to go back on the same line to Bakersfield and then to McKittrick. I went to McKittrick at that time. Before I went to McKittrick I went to see Mr. Burkhalter and he gave me a pass to McKittrick. I saw him at the Southern Pacific Depot. I knew Mr. J. B. Treadwell. I met him a number of times. He was in that vicinity off and on a number of times,—while I worked in and around McKittrick as I have testified. I know of his locating oil land while I was there. He located it right north of McKittrick. I couldn't say about how much he located. I don't know whether he located alone or not. He located the strip that runs from McKittrick to the North-End Field. He located it for min-

eral, oil and asphalt. The property on which I was working at the time I had the accident to my finger was commonly known in that vicinity as the Southern Pacific Lease. At that time the old camp was right in the town of McKittrick. The well was right at the hill above the old town site. The well was about a quarter of a mile from the town. I know Mr. Henry M. Thompson. At the time I worked on the Southern Pacific lease he was connected with the operations of the same, I believe he was bookkeeper. I know Mr. E. T. Dumble, the geologist. I saw him in that vicinity in 1902. I saw him prior to 1902. I know Mr. Josiah Owen, the geologist. I have seen him in that vicinity. It was along about 1902 or 1903. While those two men were there, they stopped on the Southern Pacific lease up at the north end. That was about two miles from where I worked. I have seen these two men there together. They were driving around over the country. They were mineralogists. [47]

Q. Do you know for whom they were working as mineralogists or by whom they were employed as such?

A. I do not.

Q. Did you ever hear that spoken of?

Mr. Lewers. Objected to as calling for hearsay testimony and not the best evidence.

A. I have.

Q. By Mr. McCormick. What did you hear about it?

A. That they were S. P. mineralogists.

Q. When you use the term "S. P.," what do you mean?

A. The S. P. Railroad.

Q. The Southern Pacific Railroad?

A. The Southern Pacific Railroad. Wherever S. P. appears in my testimony it means Southern Pacific Railroad. These two men, Dumble and Owen, drove around over the country in a rig that belonged to the S. P. They were driven around by a man who we called "Old Dad." He was employed by the S. P. at the time he was driving these men around over the country. They drove all over the country. I can't say that I ever saw them driving towards the Elk Hills. I was present when these two men found shells around there. I think it was along in the spring of 1903. It was out on the lease where I was working for the U. S. Oil Company on Section 6, Township 30 South, Range 21 East. Mr. F. J. Sarnow was my boss at that time. They found the shells in the oil stains in that section. They were over there and we had an argument about what oil originated from and I told them that I thought it came from dead matter and he said it came from the mica in the shale, and I says, "I know better than that because I found oyster shells; solid shells, where you find it in the center of the shell, and there is no chance for it to get in there, because it was right in the shell." And I saved some of them when they came back and gave it to Owen, the mineralogist. [48]. I found an anticline running through the Elk Hills. It runs northwest and southeast, I believe. It is about on the line from McKit-

trick to the Elk Hills. I found that anticline, or evidence of that anticline, in the immediate vicinity of where I saw this blow-out in the Elk Hills.

CROSS EXAMINATION OF
IRA M. ANDERSON.

That anticline runs generally southeasterly and northwesterly right straight through. I know what are now called the Elk Hills. They were the Buena Vista Hills then. To the south of these hills there is quite a flat plain before you strike the other range of the Buena Vista Hills. One of the anticlines passes direct through the Buena Vista Hills. A second anticline begins about nine miles from old headquarters. That sand goes through there. That is what I call an anticline. I don't know whether it is or not. By the old headquarters I mean the Miller & Lux old camp. The evidence that I found of the existence of that anticline was asphalt and oil sand. The last time I saw the asphaltum deposit was a couple of years ago. As you travel from McKittrick in an easterly direction through the flat, you can see that deposit to the right; some of it is to the right and some on the left. The asphaltum on the left is about a mile from McKittrick. The flat is all covered with it. Looking at this exhibit, here is McKittrick and that dotted line indicates a wagon road leading down through the flat, down towards the Buena Vista Lake. To the north of that is what is called Elk Hills now. To the south of that is what is labelled on this map as the Buena Vista Hills, a narrow range of hills com-

pared with what is marked as Elk Hills. I am referring to the flat lying to the north of this narrow range of hills and the one which leads [49] right over to the Buena Vista Hills. Now in following this road out of McKittrick down through that flat, you could see asphaltum to the left as you travelled in that southeasterly direction. It is in that valley; it is all over the flat. It is up there in the northeast corner of Section 26, Township 30 South, Range 22 East, and on Section 22 in the same township and range. I have seen deposits of asphaltum or brea north of that in this range of hills called the Elk Hills on this exhibit "I." It was over there about seven or eight miles from the old headquarters camp, the dredger camp, southeast from the headquarters ranch about seven or eight miles. I have gone to this deposit from the headquarters ranch and in doing so travelled southeast. I first saw this deposit in 1900, when I first came in the country, and I based my conclusions that an anticline existed there from this surface showing of brea and asphalt and from the oil sands and stuff in there. I made no examination of the country to determine the stratification but the parties that were with me did. Tom Malone and a man named Scott were with me. They discovered it in my presence. It shows for itself right there from this oil sand, southeast of Miller & Lux's ranch headquarters. When I first went into that country I knew nothing about the Elk Hills. It was always called the Buena Vista Hills by me. I never heard of the Elk Hills until the last few years. There is quite

a pronounced anticline near the town of McKittrick and to the south and west of it. I believe only the east side of that anticline shows. It dips away from the town of McKittrick.

REDIRECT EXAMINATION OF IRA M. ANDERSON.

The Headquarters Ranch and the Dredger Camp that I spoke of are two different places. I know where the Buena Vista Lake is. It is near to the Dredger Camp. The Dredger Camp is on [50] the canal. The old headquarters ranch is not on the canal. What we used to call the Deep Water Ranch is right on the canal. The time I went to the blow-out in the hills I went from the Dredger Camp, which is about nine miles from Buena Vista Lake. McKittrick lies north and west from Dredger Camp. I went in that general direction from the camp to this blow-out. The railroad that runs to McKittrick is the one that runs through the railroad out within a half a mile of which I found the asphalt deposits I spoke of. The railroad cut that I mentioned is about two miles from McKittrick, and the cut is about half a mile in length with hills on both sides of it. The cut is very pronounced and this asphalt that I mentioned I found within a half a mile of the railroad is on the right-hand side going from McKittrick to Bakersfield.

RE-CROSS EXAMINATION OF IRA M. ANDERSON.

In going from the Miller & Lux Ranch, which I call the Dredger Camp, to this blow-out, I went pretty nearly northwest about seven or eight miles.

REDIRECT EXAMINATION OF
IRA M. ANDERSON.

I did not go right up the canal; I cut across the Buena Vista Hills [61]

F. J. SARNOW, a witness called and sworn on behalf of the plaintiff, testified as follows:

DIRECT EXAMINATION.

I am living in East Bakersfield. I am forty-two years of age and have been engaged in the oil business seventeen or eighteen years. I first went into the McKittrick Field in 1899. I was hired by Mr. J. B. Treadwell at Summerland to go there. Before I went there I was drilling oil wells at Summerland. When I came up from Summerland to McKittrick I shipped two rigs up there. One was a standard rig and the other a portable Star rig. They were shipped on the Southern Pacific Railroad and no freight was paid. They were shipped to the Southern Pacific Company, care J. B. Treadwell, McKittrick. I drilled eleven wells in the McKittrick field for the Southern Pacific Railroad. Ten of them were producers. Mr. Treadwell at that time was working for the Southern Pacific Railroad. He was the head of the Oil Department. I have seen Mr. Huntington and Mr. Kruttschnitt at McKittrick. It was in the last part of 1899 or the first part of 1900. At that time I was at McKittrick on the Southern Pacific property there, and they came out there where I was and Mr. Treadwell was with them. There were six or seven railroad officials came there at that time and Mr. Treadwell introduced me to them. I was introduced

as "our foreman" by Mr. Treadwell. I know the Elk Hills. In those days they did not have a name, but they were referred to as the Buena Vista Hills. In those days there was no development in the Elk Hills. When I first went to McKittrick I put down the first well there that made a well. That was in 1899. There were some wells there at that time at old Sunset. Old Sunset is four miles past Sunset in going from McKittrick. I have been in the Elk Hills and I consider them as oil territory, although it was expensive territory. I had a talk with Treadwell about different lands. He [52] thought there was oil in those hills, although it would be expensive. I am acquainted with the country all the way through and know the top of those Elk Hills. I have been through there in different parts and the land is not valuable for agriculture. The rainy season there is from December to March. The surface of the ground on top of those hills is rough and barren. The only vegetation is some sagebrush, unless there is an amount of rainfall, when there is a little grass grows, which does not last for very long. I know Mr. Treadwell was in the employ of the Southern Pacific Company as an oil expert through my connection with him and with the Southern Pacific Railroad Company. We were furnished with regular Southern Pacific letterheads, envelopes with "Southern Pacific" stamped on them. If we wanted any material in 1900 and from then on, any materials needed on the lease, that is, for the Southern Pacific work, we had to send a regular requisition to San Francisco. Passes were

issued to any of the men that were working there. I would wire to Burkhalter and passes were sent. And if we wanted them quick, it would be sent by telegraph. Any business from Wells Fargo or the Western Union was franked. I once paid a bill to Wells Fargo and I was told not to pay any. All freight that was sent was tagged S. P. The name of the article was on and what division it was on. Out there it was shipped S. P. Company, care J. B. T. The time sheets that we made out there we made out on regular Southern Pacific time sheets, about 18 inches by 20 inches. All the employees had to sign them when they got their check. Treadwell had one of these gasoline velocipedes that the Southern Pacific used for track inspectors. It was kept in the S. P. shops at Kern, and he would come out there and then take it back to the Southern Pacific. The railroad officials that would come out there—I don't remember that Kruttschnitt was out there with Huntington—but they were out there four or five times. There was one time H. E. Huntington came out. But I [53] know they came out four or five times. Any machine work that they could do in the Southern Pacific Railroad shops was sent down there to be done in their shops. All the employees working on the property, outside of my own contract work, had to pay hospital dues, and it was taken out of their checks. The hospital that I referred to is the Southern Pacific Hospital in San Francisco. I sent four or five different men there on passes. When anybody got hurt I had a wire pass sent from Burkhalter at Bakersfield, and

I would wire the S. P. surgeon at Kern to meet them, and he would meet them and examine them and see if he could do anything for them; and if he couldn't, he would get a pass and send them to San Francisco Hospital—if it was anything serious. J. B. Treadwell was on the McKittrick payroll drawing $300 a month from the Southern Pacific. When I refer to the McKittrick payroll I do so to distinguish it from the Kern Field, which had its own payroll. Mr. Treadwell had talked to me about Kruttschnitt and the credit he had with most all the banks around. The Southern Pacific furnished the money. I remember his telling me that he had some leases in Spindletop, Texas. He also showed me some passes. He had his yearly pass on the Southern Pacific, on the Santa Fe, a Pullman pass and passes on the United Railroads and passes on the electric cars in Los Angeles. I don't remember what company it was in Los Angeles that he had passes on, but he said he got them all through the Southern Pacific. I was discharged by Mr. Treadwell by letter. The letter discharging me is plaintiff's exhibit "J-1" and "J-2". I am acquainted with Mr. I. M. Anderson, who was on the stand just before me. I also know Mr. Henry Thompson. Anderson worked both for me and the Southern Pacific. Henry Thompson was my bookkeeper out there for the Southern Pacific. Sometimes Mr. Treadwell would come out to the fileds and stay a week and then again he wouldn't come for two months. Sometimes he would stay a [54] day. He was in the business of acquiring oil lands or lands valuable

for oil for the Southern Pacific. It was his custom, wherever he would hear of a strike of oil or good prospects of oil sand discovered, to look at it. That is how he came to go into the McKittrick Field. He told me that he kept plats or maps of the country on which he marked down the places. I knew Josiah Owen by sight. I saw him around McKittrick while I was there. My knowledge and belief was that he was a geologist of the Southern Pacific Railroad Company. He used to come out there and ride around in the Southern Pacific buggy. Sometimes he would be alone and sometimes somebody would be with him. When he was at McKittrick he stopped on the lease or at the hotel. He would stop at the south end some and at the north end some and sometimes at the hotel right in town. I saw him out there a good many times; possibly fifty or sixty times, from the time he went into the employ of the Southern Pacific after Treadwell was out, until within about five years ago. I don't know just what year Treadwell left there, but Owen came there after Treadwell left, which was before 1904. I knew E. T. Dumble by sight. I never knew whether it was Dumble or Owen that took Treadwell's place as oil expert for the Southern Pacific. I understood it was both of them took the place Treadwell had. Dumble was a man about fifty-five years of age. I saw him there possibly fifteen days during the same year that I saw Mr. Owen there. He was doing just the same as Mr. Owen—driving around the country with the Southern Pacific's team and he stopped either at the Southern Pacific lease at the

south end or the north end. I know Mr. Treadwell located some land. I don't know for whom he located it. I don't know of his locating any land in the Elk Hills. I have seen oil outcroppings in the Elk Hills. They were located on Section 14, Range 22 East, Township 30 South. There are oil crops and sand on the east side of the railroad there on [55] that section and there is dry oil and over flow on the west side of the wagon road. The wagon road is on the west side of the railroad. There is oil—there is some others there. I don't know what sections they were on, but I saw several different spots where there were oil crops. I never went right on the ridge and travelled right through on the Elk Hills. I maybe went up the canyon and travelled the ridge a mile or two and then would go down again, I saw four or five outcroppings of sand on the Elk Hills. I know where the Miller & Lux ranch is on the canal, the one that is called the Old Headquarters. I know of oil sands in the hills southwest of Miller & Lux's ranch. They were around in that country about Section 25, Range 23 East, Township 30 South, and Section 30, Range 24 East, Township 30 South. I am not positive whether it was exactly in those sections, but it was in that neighborhood, as I never came up from Miller & Lux's Headquarters that way. I know of oil croppings or sand between McKittrick and Sunset in the Tembler Range. There are quite a few outcroppings of oil sands and blow-outs northeast of the Tembler Range or north of it. They are on the small hills through McKittrick called the McKittrick Hills.

There are some outcroppings between Sunset and Maricopa, probably two or three miles from Sunset towards McKittrick.

CROSS EXAMINATION
OF
F. J. SARNOW.

When I speak of Mr. Treadwell, I speak of him as the head of the Oil Department of the Southern Pacific Railroad. I worked for J. B. Treadwell and the Southern Pacific Railroad Company. The time sheets and letterheads that I used and the envelopes marked "Southern Pacific Railroad Company" are the [56] same as the one introduced as an exhibit, "J-1". I understood I was working for the Southern Pacific Railroad Company. I never saw C. P. Huntington out there, but I did see H. E. Huntington. I was there continuously from 1899 up to 1907 or 1908. I was not employed by Mr. Treadwell after March 28, 1901. The first well which I put down in McKittrick, which was a real well, was a little over four hundred feet deep. That was in 1899. Prior to that time I had been engaged in the oil business about five years at Summerland. My experience has been in California exclusively and I was quite familiar with the methods then in vogue of sinking wells. I had had four or five years practical experience. I had made no extraordinary study of the method of sinking wells. Before 1899 I had drilled wells by contract and drilled some of my own in Los Angeles. I had drilled some wells over a thousand feet. The depth would all depend on the formation you were

going through and what kind of a hole you had; whether it was a wet hole or a dry hole. The deepest well I had drilled up to that time was something over a thousand feet. It was in Los Angeles. There were a lot of them in Los Angeles over a thousand feet in depth in 1899. I never heard expressed how deep it was possible to go at that time, although I was in the oil business exclusively. There is no maximum depth today, but it depends on the formation of the hole. In 1904 there was a well in McKittrick some 2250 feet in depth and it was the deepest in McKittrick at that time. I don't remember the first time I went to this sand blow-out in the Elk Hills, as I went there so often I never kept a record of it. It was all between 1900 and 1907. Prior to 1904 I considered the Elk Hills as oil territory, although it was expensive. There is no water in that country. It would have to be hauled, and water was expensive at McKittrick, and to ship it by railroad it would be expensive that way. And the territory was quite deep, that is, deeper than it was around **[57]** McKittrick where we were drilling at that time. The wells were not very deep there at that time. You could get wells not deeper than a thousand feet, and where I was drilling you could get them 350 or 600 feet, and if you went fifteen or sixteen hundred feet it would be considered a deeper hole than what we would consider over there, considering what we were drilling on. You have to have water to drill a well. I never heard of one being drilled dry. Water was one of the factors which I took into consideration in passing on the

territory as a prospect, and the reason I regarded the Elk Hills as expensive was because it did not have water and because I thought it was probably deep. I thought the depth would be 1500 or 1800 feet, which at that time was too deep for practical operations and besides we had plenty of territory that we were drilling on. I was interested in locations in the Elk Hills. They were on this blow-out. Associated with me were John Jean and my brother and Treadwell and several others. The location was made by others and they put my name in, but I don't know that I was in that particular place or not, as I was not there at the time when the location was made, I have no interest in that location now. I don't know what became of it. I never took any steps to go ahead with it as I never had the money to invest. I did not endeavor to interest anyone else. I understood Mr. Treadwell had a great deal of money, but he did not use any of it in developing that particular territory, to my knowledge. The Southern Pacific lease that I spoke of is close to the present town of McKittrick. Our camp was put on the Southern Pacific right of way when we started in. The oil wells were located on the ground which belonged to the Buena Vista Oil Company. The Southern Pacific Company leased from what was called "Our Own Oil Company" and they leased from the Buena Vista Oil Company, and it went through one more lease and then it was turned in to the El Dorado Oil Company. It went through [58] two or three more leases and was then sub-leased to the Southern Pacific under an option to buy it. The

Southern Pacific operated that well for the purpose of obtaining fuel for use on their lines. They used the oil for that purpose and the engines used to take the oil at McKittrick from the oil produced on the south end, Southern Pacific lease. When I wanted a pass I had no trouble in getting the same, but would either write or wire Burkhalter and he would send it to me. Whenever men were injured on the lease they went to San Francisco on the passes. I had trouble with Treadwell in 1901, resulting in his writing the letter of dismissal to me. He had had some difficulty with my brother and he told me he did not want him on the property. During the Christmas time my brother came and paid me a week's visit and when Treadwell heard of it he was pretty mad and he came up there, as he said, with the intention of letting me out. I told him to do whatever he wanted, so the next day I got the letter of dismissal from him. I kept it as it was the only time I have ever been discharged. I felt that I was unjustly discharged and I felt sore, as I thought it was mere boy's play, the way it was done. I have nothing against Treadwell, as he is a good man to work under. I have nothing against the Southern Pacific, although I felt sore at the time. I don't feel sore any more, as I found out I could get along with out the Southern Pacific and Treadwell. I am testifying to the truth. That is all I am testifying to. It is nothing to me who wins the suit. It has nothing to do with my locating of the oil sands on Section 25, in Township 30 South, Range 23 East, as the sand is there in that neighborhood. I am now drilling in that

same anticline on Section 6, Township 30 South, Range 22 East. I have drilled three wells there and worked on the fourth. I base my conclusion that there is an anticline there because it runs from near Buena Vista Lake, where that blow-out is, to thirty-five [59] miles northwest of McKittrick, and I have drilled six wells on that same anticline, and sometimes you don't see it for a couple of miles and then it crops out again with blow-outs of oil sand. This anticline is an outcropping of oil sands and blow-outs and the formation surrounds it. The formation is shale, clay and gypsum. The oil sands show stratification from which you can determine it is an anticline. They show stratification on Section 36 in the same township and range that Section 6 is in, that is, 29 South, Range 21 East. I drilled two wells on Section 6 eight or nine years ago and just finished one there last week. I drilled two further up about eight miles further west, possibly ten years ago, along in 1901 or 1902. I have not drilled any wells at any point east of the Elk Hills and north of Buena Vista Lake, as I don't think that anticline is over there, and I don't know of anyone drilling over there.

M. S. WAGY, called on behalf of the plaintiff, having been first duly cautioned and solemnly sworn to testify the truth, the whole truth and nothing but the truth, testified as follows:

DIRECT EXAMINATION

By Mr. Mills:

Q. Where do you live, Mr. Wagy?

A. San Francisco.

Q. Are you a relative of J. I. Wagy?

A. Yes sir.

Q. A cousin?

A. Yes sir.

Q. Were you in the Elk Hills at any time locating lands for oil purposes?

A. Yes sir.

Q. About what was your first visit there? **[60]**

A. 1899 or 1900; along during that time.

Q. How came you to locate land there?

A. We found what we thought was an indication of oil there.

Q. Describe those conditions.

A. A break or blow-out—seepage.

Q. Can you tell me where that location was? That is, that discovery?

A. It was on the northwest quarter of Section 32.

Q. In what township and range?

A. 30—24.

Q. Will you give a detailed description of what you found there?

A. Well, we found gypsum there and Fullersearth —that is, in that immediate country.

Q. I mean in this outcropping?

A. There was a gulch right down through there and this outcropping was caused by the wash washing surface dirt away. It might have been that, but it cropped there.

Q. What was the nature of the oil sand that you found?

A. It was practically dead sand. There was an odor in it of oil in it or petroleum.

Q. Was it stained?

A. Oh yes; it was black.

Q. What was it, oil sand or not?

A. Yes sir.

Q. How did you come to go in there? Who got you to go in there?

A. Mr. Drouillard. He had told me about those indications of oil.

Q. He was the gentleman who was on the stand in the early part of this hearing?

A. Yes sir. **[61]**

Q. Did he go there with you?

A. Yes sir.

Q. Have you done any oil developing yourself?

A. Yes sir.

Q. Where abouts?

A. Kern River field and McKittrick, and Temblor.

Q. Anywhere else?

A. No sir.

Q. How extensive has been your work? How many years?

A. Since 1898.

Q. Who were your associates that you were interested with in the Elk Hills because of that discovery?

A. At that time I don't know as I could tell them all. There was quite a number of names used, mine among others.

Q. Can you recall some of the names?

A. Mr. Drouillard and Charlie Lamont, T. A.

Baker of Bakersfield. I think we used our wives names in some instances.

Q. Was Mr. Youle in it?

A. Not at that time he wasn't.

Q. Was Mr. Packard?

A. Yes sir.

Q. One Roper?

A. J. T. Packard was one of our associates at that time.

Q. Was Mr. Blodget?

A. No sir: Not at that time.

Q. Did you locate more than one section of land?

A. Yes sir: we located a number of sections there.

Q. How many sections did you locate?

A. That has been a good while ago. I don't just remember the number. I can't recall now just the number of sections. We took everything that looked good.

Q. Did you locate any lands in 30—23 and in 30—24? **[62]**

A. Yes sir.

Q. About how many sections did you locate altogether?

A. To the best of my recollection I was interested in eight or ten sections. I can't be positive of that. I didn't keep any record of it.

Q. Did you try to burn any of that asphaltum or deposit that you found there or for fuel?

A. Yes sir; we used to throw it on the fire.

Q. State whether or not it would burn?

A. Oh yes; it would make a smoke and smell and it would blaze up after it het up.

Q. Give any odor of oil or gas?

A. Yes sir.

Q. Who paid the location expenses?

A. I paid some of them and I suppose the others done the same. I don't remember just now. I know I paid my proportion of whatever it was.

Q. What year was that?

A. 1899 first, and then I was in there in 1900.

Q. Did you sell out your interest in those locations?

A. Yes sir.

Q. Whom did you sell to?

A. To Burt Packard, known as Burt Packard, an attorney—or Burt Packard. I forget his initials.

Q. By Mr. McCormick—H. L.?

A. H. L., yes sir.

Q. By Mr. Mills—How much did you get?

A. I got three dollars an acre.

Q. Do you know whether there was any tunnels or shafts dug in the Elk Hills near those locations or by any other parties?

A. There was later on. **[63]**

Q. Did you see it?

A. Yes sir.

Q. How deep was it?

A. Maybe tweenty feet. I never measured it.

Q. Did it show any indications of oil?

A. Yes sir.

Q. Do you know a man named J. B. Treadwell?

A. Yes sir.

Q. What was his business at that time?

A. The oil business.

Q. Who was he working for?

A. I don't know.

Q. Whom did you understand he was working for?

Mr. Lewers—Objected to on the ground that it is calling for a conclusion, and hearsay.

A. I understood he was working for the Southern Pacific Railroad.

S. Do you know whether or not he was in there for the purpose of making oil locations?

A. He made oil locations.

Q. Where abouts?

A. There was a number of locations. They were around McKittrick or in that neighborhood.

Q. Did he make any locations in the Elk Hills?

A. Not to my knowledge.

Q. Do you know a man named Youle?

A. Yes sir.

Q. Did you know him at that time?

A. Yes sir.

Q. Were you in any of the locations in which he was interested?

A. Not at that time. I was not interested. [64]

Q. Do you know whether he became interested subsequent to that time?

A. Yes sir; he became interested—yes, after I had sold out he became interested.

Q. Did you recognize any anticline where you made those locations?

A. I recognized what we called an anticline.

Q. Describe it. What was it?

A. It was the general trend of that ledge through there, and the formation pitching to the southwest. I believe that it was what they call an anticline. I don't know.

Q. In which direction was it running?

A. Northwest and southeast.

Q. Was Drouillard the man that first made the discovery there?

A. That is the first I know about.

Q. He told you about it?

A. Yes sir.

Q. Was he regarded as a geologist?

A. I considered him very good at that, and a very close observer.

Q. What is your opinion of the Elk Hills as an oil territory?

A. I think it is good.

Q. Was that your opinion as early as 1899?

A. Yes sir.

Q. What is your reason for regarding that as a good oil territory?

A. Well, we had the same indications as we had where we were getting oil. Better indications than in the Kern River field where we were getting oil.

Q. What was Mr. Drouillard's opinion of it, if you know.

A. I talked with him about it in a general way. He thought it was good. **[65]**

Q. When did you have that talk with him?

Q. 1900 or 1901 or somewheres about that time.

Q. Have you ever noticed any oil stains in what is known as the Buena Vista Hills south?

A. There is what we call a break there running there—I forget the section that is on now, because I never located any land there or ran out the sections.

Q. Do you know of any other indications of oil around that territory?

A. In the Elk Hills?

Q. Yes.

A. There was an outcropping on 26.

Q. In what township and range?

A. 30-23.

Q. What was the nature of that outcropping?

A. It was not as good as the one on 32. In 30-24.

Q. What is the nature of the surface of the hills there?

A. They are very rolling and very rough; unless you get on a ridge or in the gulch you can't drive through that country, or couldn't at that time, because there was no road.

A. Are those lands covered with vegetation?

A. No sir.

Q. What is the nature of the soil there?

Q. Shale and sage brush.

Q. Any water?

A. No sir.

Q. Is the land susceptible of economical agriculture?

A. No.

Q. Do you know a man by the name of Josiah Owen in his life-time?

A. I have met him.

Q. What was his business? [66]

A. Well, he was looking—he was what we call a geologist. He was looking at all those seepages and breaks. He was making examination of them in the different districts there.

Q. Around the territory you have mentioned?

A. I don't know that he was over there.

Q. Did you ever show him the sand taken from Section 32?

A. I showed him what came from there and told him where it came from.

Q. When was that? What year?

A. I think that was in 1900.

Q. Subsequent to that time did you have any talk with him?

A. Yes sir.

Q. How long after that?

A. During the time he was there—1900 or 1901 or somewhere along about that time.

Q. What did he tell you about that country, if anything, at that time?

A. Mr. Lewers—To which we object on the ground that it calls for hearsay testimony without any foundation being laid to show that Mr. Owen was authorized to make representations or statements for any of the defendants in this case.

A. He thought that was good.

Q. By Mr. Mills—Did he say he had been out there?

A. He didn't say at that time. He said he thought

that was an oil district. He did not tell me that he had been out there, but he told me lots of places that he thought was good or bad that I never asked him if he was there, and I supposed he was there.

Q. You told him about this oil sand. Did he at that time state where it was?

A. No, he didn't know where it was, he said, and he didn't know. [67]

Q. Did he know after that time where it was?

A. Yes sir.

Q. Did he state to you after that that he was out there and knew where that oil sand was?

A. He said he knew where it was. We compared notes quite often on the country. He was traveling over the country a great deal.

Q. How often did you talk with him about the different parts of the country there?

A. I can't tell. Most every time we would meet or get together, either in Bakersfield or McKittrick.

Q. Did you discuss oil territory with him?

A. Yes sir; in a general way, about where those breaks occurred and where they ran and so forth.

Q. Now, referring to the Elk Hills, didn't you say to me yesterday that Mr. Owen had been out in the Elk Hills?

A. I don't know. He might have. I naturally supposed he was out there.

Q. What made you think he was out there?

A. He passed on the territory.

Q. Did he show a knowledge such as he would get from personal observation in his talk to you?

A. Yes sir. But that was about all the talk we had. He passed on it as good. We were all trying to get information as to where the oil belt was in that country, in that district.

Q. Did you tell him where you had your locations?

A. Yes sir. But I had sold the locations at that time.

Q. That was in 1901, you say?

A. I think that was the date. I can't be positive about the year.

Q. Did you see any plats or maps of Mr. Owen at that time?

A. No sir. [68]

Q. Or during any of these talks you had with him?

A. No sir.

Q. What, if anything, did he say about holding on to your locations?

Mr. Lewers—I object to that as leading and suggestive; and I object to the constant leading nature of the questions. You might as well read Mr. Owen's alleged answer into the record. The witness is intelligent and able to tell what it was.

A. I think I had sold my locations at the time I talked to him.

Q. By Mr. Mills—The first time you talked with him had you sold your locations?

A. I don't know if I had then, but I think a little later on.

Q. You are not positive that you had sold them at the time you talked with him?

A. Not the first time.

Q. Did he give you any advice as to the locations the first time you talked with him?

A. No.

Q. Did he at any time?

A. Later on he told me that that was oil territory.

Q. Is Mr. Baker that you have mentioned a geologist?

A. He is a prospector, I guess. That is what you call him. He acted in that capacity at that time.

Q. Have you any locations in the Elk Hills now, Mr. Wagy?

A. No sir.

Q. You sold out all your interests?

A. Yes sir. **[69]**

CROSS-EXAMINATION OF M. S. WAGY.

By Mr. Lewers:

Q. Do you know what became of those locations that you made in there?

A. No sir.

Q. Have you ever been back since that time?

A. I was over that district a year ago.

Q. Were you in that portion of the district?

A. Yes sir.

Q. Was there any work going on in that territory that you had originally located?

A. There was several rigs in there, some of them drilling and some of them just derricks.

Q. Where were they?

A. Some on 28 and some on 26, and I think there was—I couldn't place it, just going there going over

it—on the sections. I think it was on 31 and 32. Somewheres in that district.

Q. They might have been on 30?

A. Yes; it was in that neighborhood. I didn't stop to establish any corners.

Q. Do you know of Mr. Packard now having any interest in that territory?

A. No sir.

Q. Have you ever had any talk with him since that time?

A. Up to the time of his death, yes.

Q. Mr. Packard is dead?

A. Up to the time of his death.

Q. When did he die?

A. I think it is about three or four years ago. [70]

Q. Did he ever tell you whether he had kept those locations or not?

A. No.

Q. Did you ever learn from any conversation you had with him whether he had kept up his location work?

A. Yes; they were doing their location work after I had sold.

Q. How long?

A. I don't know how long they continued.

Q. Isn't it a fact that the claims were relocated in 1903?

A. They might have been.

Q. Were they not relocated in 1901 or so?

A. I haven't any knowledge about it.

Q. Did you and your associates do all of the nec-

essary location work?

A. I didn't do any.

Q. You sold out right away?

A. Yes sir.

Q. That was at a time when there was some considerable speculation in oil lands?

A. Yes sir.

Q. And a great deal of territory was being located and disposed of without any actual development?

A. Yes sir.

Q. A considerable excitement, was there not?

A. It was just the man that could make the best guess where the oil was that made the money.

Q. And to your knowledge there was a great many claims located on territory which has since proved unproductive?

A. Yes sir.

Q. It was the same old story of locating every old thing in the country because there was a good strike in one place? [71]

A. I didn't do that.

Q. I am not speaking of you.

A. Oh yes. Others done locating every where.

Q. That had some influence on you, didn't it?

A. No sir. I wouldn't go to locate a piece of land that wasn't good. I wouldn't put money into a proposition of that kind.

Q. I didn't make myself clear. What I mean is when you found this blow-out or what appeared to be oil sand, although you did not discover anything more than that, that looked promising enough so

that, considering the general situation, you were willing to make a location?

A. Yes; that was good enough for me.

Q. But you did not endeavor to hold on to it yourself and never made any effort to develop it yourself?

A. No sir.

A. And, so far as you know, your successors, did not, did they?

A. Not that I know of.

Q. You say that this blow-out that you have referred to was in Section 32, Township 30-24? Is that correct?

A. Yes sir.

Q. How do you fix that location?

A. Well, we ran it out in lines and in surveys, and carried that survey right through in all that locating.

Q. Was that territory surveyed at that time?

A. No sir.

Q. Then you had to construct for your own purposes lines along where you proposed the government lines would run? Is that correct?

A. We know where they are now.

Q. Had the government lines been run at that time? [72]

A. The township lines had.

Q. Of which township?

A. We commenced at 30—24, at the corner down near the Headquarters Ranch.

Q. Had that township been run and surveyed by the government prior to the time you went in there?

A. The township corners had been established.

Q. But it had not been divided into sections?

A. No sir.

Q. You started from the township corner and constructed the section lines in order to locate yourself?

A. Yes sir.

Q. You started near the Headquarters Ranch?

A. Yes sir.

Q. You mean the Miller & Lux ranch on the canal?

A. Yes sir.

Q. How far and in what direction from the Miller & Lux headquarters on the ranch was this blow-out?

A. It was southwest.

Q. How far?

A. I don't know. I never measured it. I never went that way, because we couldn't travel that way. It was five miles or six or something in that neighborhood.

Q. Down on to Section 32?

A. Yes sir.

Q. You located in all, as near as you can recollect, how many sections?

A. I don't remember now.

Q. As near as you can recollect?

A. Probably there was from six to ten sections.

Q. You went in by the wholesale?

A. Yes sir. [73]

Q. There was no possibility with the means you and your associates had of developing that territory?

A. Yes, we had ideas.

Q. But did you have the means to back up the ideas?

A. We might have had.

Q. That is, you might have raised the money?

A. Yes sir.

Q. If you had struck anything good enough you were in a situation where you could interest capital?

A. Yes sir.

Q. Did you ever endeavor to interest capital in that?

A. No sir.

Q. Did you locate any claims in that large area east of this first location in Section 32?

A. There was one section, I think, or two east of that.

Q. Any north?

A. Yes; I think there was four sections in that first group. Five, or maybe four. I can't determine just now without going right to the map. I haven't any notes. It would be hard for me to determine.

Q. You say you have no notes in your possession showing where you were?

A. No; not now.

Q. Did you have anything to do personally with the preparation of any location notices?

A. I don't remember.

Q. Or the recording of any?

A. The recording of them and so forth. I don't know whether I wrote the notices on those claims or not.

Q. Had you located any claims in other territory about that time?

A. Yes sir. [74]

Q. Where?

A. I was in with the McKittrick Oil Company that located three sections at McKittrick, and also some land in the Midway and some in Temblor.

Q. Did any of them turn out a profitable venture in the way of production of oil while you were interested?

A. Yes.

Q. Where was that?

A. The McKittrick Oil Company had about three wells. Three wells, I think.

Q. Did you get outside capital interested in that property?

A. Yes sir.

Q. And developed it?

A. Yes sir.

Q. You say there is no vegetation in the Elk Hills outside of sage brush?

A. Sometimes there is a little.

Q. Were you ever there in the spring of the year?

A. Yes sir.

Q. Is there any grass there?

A. Sometimes, if it is a good year, there is grass there. If it is a bad year there isn't any.

Q. If there is rain in the winter or spring there is grass?

A. Pretty heavy rain. If it is a dry year there is nothing in the oil fields anywheres. In a good year all that territory in McKittrick is good feed.

Q. Have you ever seen any sheep grazing in any portion of the Elk Hills?

A. Yes sir.

Q. When did you see them there? [75]

A. Most all times that I have been there there has been sheep in that district. You would see them all along the mountains.

Q. That is, it furnishes a spring range for sheep?

A. Yes; when they don't require water.

Q. And later on they move to the higher mountains?

A. Yes sir.

Q. That is the general practice of handling sheep everywhere?

A. I believe so.

Q. Mr. Wagy, do you remember anything about the kind of location notices you used when you first got them?

A. I think we had that Bakersfield Echo print the notices from a copy of Bancroft's Forms.

Q. Didn't you print a great many of them with the names of the locators printed with the rest of the notice?

A. No, I don't think I did.

Q. Of course, that is some tome ago. Isn't it possible that that is what was done?

A. There might have been others interested with me added notices printed that way.

Q. And your name might have appeared that way?

A. Yes sir.

Q. Isn't is possible that a large number of notices were printed in this way for the purpose of plaster-

ing them on considerable territory during the excitement?

A. Well, it would expedite matters, yes.

Mr. Lewers—That is all. **[76]**

DIRECT EXAMINATION OF M. S. WAGY.

By Mr. Mills:

Q. You heard Mr. Drouillard's testimony the first morning?

A. Yes sir.

Q. Was he interested in the same set of locations that you were when you first went in there?

A. Yes sir.

Q. Were the only locations he was interested in to your knowledge in the Elk Hills?

A. Yes sir.

Q. You say that part of your locations were in 30-23?

A. Yes sir.

Q. How many sections were in 30-23?

A. I don't remember now.

Q. Did they join on to the locations you made in 30-24?

A. Yes. Our land was all in one bunch.

Q. And the township line divided them?

A. Yes sir. It went through the land.

Mr. Mills—That is all.

RECROSS EXAMINATION OF M. S. WAGY.

By Mr. Lewers:

Q. How did you know—that is, how is it that you fixed it in your mind that you had any of your locations in Township 30-23?

A. In running it out I could remember the township and range very readily through that whole country in many instances [77] where I could name the sections.

Q. Isn't it possible that you made an error in the number of the range?

A. In that township? No sir.

Q. You don't think it is possible?

A. No, unless the land has moved since I went on it.

Q. Suppose the land remained exactly as it was except for the natural process of erosion. Wasn't it possible that in going in there you inadvertantly put the wrong range number on?

A. No. We had two ways of proving that work, and I done that. I proved it from the east and from the west, and I could get a starting point at McKittrick for 30-22. I knew that township corner. And we proved it in that way. And in selling that I had to prove it, and I proved the territory out from both ends.

Q. What township corner did you start from?

A. 30-24 on the east and 30-22 on the west.

Q. Was that anywhere near the Headquarters Ranch?

A. 30-24 was.

Q. How far from the Headquarters Ranch?

A. My recollection is the corner is not very far from there.

Q. Which corner of the township was that?

A. The northeast.

Q. You say "not very far." Can you be a little more specific as to how far it was approximately from the ranch?

A. Well, it might have been a mile and a half or two miles.

Q. In which direction?

A. From the ranch? Nearly south. South or a little east of south.

Q. That is the corner you started from?

A. Yes sir.

Q. And you have quite a distinct recollection of that starting point? [78]

A. We had to get that off of the plat-book and we had to get Miller's foreman, a man named Brown, to locate us on the starting point.

Q. He was the foreman of the Miller & Lux ranch?

A. Yes sir.

Q. He took you down to that corner?

A. He said that was the corner.

Q. And that was what corner of the township?

A. The northeast.

Q. And you took the corner that he pointed out? How was that corner marked?

A. It was marked by a post, and then charcoal in the ground.

Q. What were the markings on the post?

A. I don't remember now.

Q. Do you remember seeing any at all?

A. Yes; I think there were. Most all of the posts were marked.

Q. Can you remember as you think back what

those markings were? It is quite important that we should know.

A. I can't tell you.

Q. And you yourself personally went to that corner with the foreman of the ranch, did you?

A. Yes; we went to it, and the boys went to it and started from there.

Q. In what direction, again, was it from the ranch?

A. My recollection is that it was south and a little east of south.

Q. That was the northeast corner?

A. Yes sir.

Mr. Lewers—That is all. [79]

REDIRECT EXAMINATION
OF
M. S. WAGY.

By Mr. Mills:

Q. Which ranch was that?

A. What was known as the Headquarters Ranch. I don't know what they call it.

Q. Just step over here to the map a minute. They had three ranches. Here is 30-24; here is 30-23; here is Buttonwillow.

A. Headquarters Ranch ought to be here somewhere.

Q. How far was it from the railroad?

A. Headquarters Ranch was six or seven miles South.

Q. Here is the township corner over here. Do you mean the Miller & Lux ranch was south or that

the corner was south of the Miller & Lux ranch?

Mr. Lewers—I object to that manner of leading and suggestive questions.

A. I don't remember how that is exactly, but we went from that ranch to that corner.

Which corner? Was it this corner that you went to or this corner?

A. This is north?

Q. This is north. Here is the seep you spoke of in 32. You said some of the lands joined on that, in 30-23.

A. That is my recollection of it, going in that direction.

Q. You see where the Miller & Lux ranch is? It would be about Section 15?

A. Yes sir.

Q. And the northeast corner is about two miles or two miles and a half from there——

A. I have lost track of it. [80]

Q. You want to correct that testimony, do you?

A. Yes sir.

Q. Are you satisfied, however, that the township line between 30-23 and 30-24 ran through the locations that you made?

A. Yes sir.

Q. You are positive of that?

A. Yes sir.

Q. So that a portion of the locations were in 30-23?

A. Yes sir.

Q. You found a blow-out in 26 of 30-23?

A. Yes; there was indications there.

Q. Did you locate on that land?

A. No; that was located.

Q. Did you locate on any sections adjoining it?

A. No.

Q. You found a seep of 32 of 30-24?

A. Yes.

Q. Did you find one in 26?

A. There was a disturbance there in 26 of sand or shale broken up that we were over.

Q. In 30-23?

A. Yes, but I don't have any recollection of locating that land.

Q. You did locate in 30-23 adjoining to the west the locations in 30-24?

A. Yes sir.

RECROSS EXAMINATION
OF
M. S. WAGY.

By Mr. Lewers:

Q. Did you locate any land adjoining Section 26 in Township 30-23? [81]

A. We located land around in there. I could tell you if I went to the records where the locations are, if you want me to do that.

Q. You say you recollect finding some indications of oil sand in 26. Did you make any locations in that vicinity?

A. I don't think so.

Q. How far from that was your nearest location, according to the best of your recollection at ~~that~~ 7412 time?

A. Mr. Mills—You had better step to the map.

Mr. Lewers—No, if you please. Will you kindly read the question?

Mr. Mills—Any time you want to refresh your recollection from this map, you can do so. That is your right.

A. I don't remember now.

Q. By Mr. Lewers—Well, approximately. I am asking you to look back as near as you can and form a picture in your mind of the ground and your knowledge of the territory and state to me as near as you can how far from this indication in Section 26 that you have referred to your nearest location was.

A. There would be no use of my swearing to anything like that. I can get the records and show what it was at that time.

Q. I want your nearest recollection from your knowledge of the ground?

A. I haven't much recollection about it at the present time.

Q. Did you locate any other corner of Township 30-24 besides the northeast corner?

A. Not that I remember of.

Q. And did you endeavor to check that corner by the corner of any other township?

A. We checked a corner on 30-22. That would be the corner of 30-23 also. [82]

Q. Did you run a line across to get the two corners?

A. Oh yes.

Q. And did that line run north or south of the Miller & Lux ranch?

A. Which line have you reference to?

Q. The line that you ran across to get the two township corners that you found.

A. It would not be in the neighborhood of the Miller & Lux ranch between 30-22. In 30-23 it would be—

Q. I misunderstood you. I thought you went over to the corner that you have referred to in 30-24?

A. No sir.

Q. You never connected that?

A. No sir.

Q. Your recollection is, I understand it, as I understood your testimony before that, that you found the corner that was pointed out to you to the south or southeast of the Miller & Lux ranch?

A. That was my recollection of it at that time. I see it is wrong according to that map.

Q. That is, according to the map. But your recollection independent of the map is that you went southeast?

A. That was my recollection. But that was sometime ago when that occurred.

Q. And you didn't prepare this map Exhibit I, did you, yourself?

A. No sir.

Q. And had nothing to do with its preparation?

A. I don't think I did.

Q. And that map means nothing to you so far as

reviving your recollection as to anything you ever did?

A. No; that map is rather confusing to me, while it may [83] be correct in every way. In looking at it I become confused instead of enlightened.

Q. But you do have a mental picture, do you not, of being at Miller & Lux ranch and of going to a certain corner?

A. Yes sir. We had to do that.

Q. And going there with the foreman of the ranch?

A. Yes sir.

Q. And your recollection before you examined the map and became confused by what appears on it was that you went to the south or southeast?

A. That was my recollection of the matter.

Q. And independent of that map that is still your recollection, is it not?

A. Yes; that is the way it is impressed on my memory.

Mr. Lewers—That is all.

Whereupon the further taking of testimony herein was adjourned until Thursday, April 18, 1912, at 10 o'clock A. M., at the same place. [84]

HENRY M. THOMPSON, a witness called and sworn on behalf of the plaintiff, testified as follows:

DIRECT EXAMINATION.

I reside in McKittrick, Kern County, and am a bookkeeper by occupation. I was employed by J. B. Treadwell in the Kern River Field, from 1899 to the spring of 1901, and from 1901 to 1902 at McKittrick.

I was employed by Mr. Treadwell as the representative of the Southern Pacific Company's Oil Department. My duties consisted of keeping the books of all the accounts, the time and oil reports. My employment did not cover anything except the transactions of the Oil Department of that company. I had nothing to do with the freight business or the passenger business of that Company. When I first went to the Field they were just starting the oil business and I was helping over the lease in all kinds of different work until we got started and then I commenced keeping the books. I went out on the 28th of September, 1899, I think it was. They were just starting into the field and had no buildings and I assisted in any manner I could until the offices were built. I know F. J. Sarnow and I. M. Anderson, the two gentlemen who testified yesterday. The names of both of those gentlemen appeared on the books of the Company. F. J. Sarnow's name appeared as foreman of the McKittrick lease—the Southern Pacific Company's lease at McKittrick. He was foreman during those times, while I was at the Kern River Field as well as at the other place. Mr. Anderson occupied the position of driller in the McKittrick Field under F. J. Sarnow. Mr. Treadwell was manager of the Oil Department, so he informed me. Mr. Treadwell took supervision over the entire field. He gave orders as to what drilling was to be done, and what supplies were to be bought. He never paid any attention to the hiring of the men; that was left to the foreman. The foreman of the Kern River lease was [85]

L. G. Sarnow, the party who testified in this case. The foreman on the other lease was F. J. Sarnow. While I was bookkeeper, oil was produced both in the Kern River and the McKittrick Fields. The oil was shipped in cars over the Southern Pacific Co.'s Railroad. I can't say for what purpose the oil was used, but the engines loaded at McKittrick and they always filled their tanks at the Kern River Field from the oil that was produced on leases or oil that was purchased. None of the oil produced on these leases was ever sold to any other concern other than the concern operating the Southern Pacific Railroad. My books show no receipts. Everything was expenditures. The expenditures covered the employes of the lease, that is, the drillers, tool dressers, roustabouts, teamsters and other men employed on the lease. No freight charge was paid for shipments of oil. The supplies, that is, the tools and implements, were obtained in the following manner. Small bills of goods at first were ordered by J. B. Treadwell from whomever he wished to buy. Afterwards we were ordered to purchase through the purchase and supply department of the Southern Pacific at San Francisco. R. P. Schwerin was at the head of that Department. I always sent vouchers for all bills that came in and sent a report each and every month of the term accounts and also of the oil shipped. If I am not mistaken, those reports were sent to the purchase and supply department, of which Mr. Schwerin was the head. While I was in that employment, I had occasion to travel on the Southern Pacific Railroad. I

had what was called a rate ticket, that is, a reduced fare of one cent a mile. I applied to Mr. Treadwell for the rate ticket and he gave me an order to Mr. Burkhalter, the Division Superintendent of the S. P. at Bakersfield. His office was at East Bakersfield. The other employes of the oil department travelled some on passes and some on rate tickets. It depended entirely on what business they were on. If they were on business of the Oil Department, **[86]** they travelled on pass over the railroad lines of the Southern Pacific Railroad. In other words, so far as the privilege of transportation was concerned, the employes of the Oil Department were treated the same as employes of the operating department of the railroad while traveling. As stated by Mr. Anderson and Mr. Sarnow, I deducted fifty cents a month from each employe of the Oil Department while I was keeping the books there. I don't know what was done with that fund. My books merely showed that it was taken from the payroll. The funds with which the expenses of the Oil Department were paid came from San Francisco from the Treasurer of the Southern Pacific Company. Sometimes Mr. Treadwell would order money to be sent to Bakersfield, to the bank of Bakersfield, where we kept our deposit. Sometimes he would write letters. Sometimes he would mention the fact that he was short of funds while some of the head men were down in the field from whom he could order money. Over in McKittrick they had more than one place from which they obtained oil. There was the south end lease, as it is

known out there,—the S. P. south end lease, and the S. P. north end lease—about a distance of three miles apart. My impression is that a portion of the south end lease was on Section 20 and a portion of it on Section 29, in Township 30 South, Range 22 East. I don't know what section the north end lease was on at McKittrick. During the time I was in the Kern River Field, Mr. Treadwell's headquarters in the field were at the office. He was not there all the time. Sometimes he was in Texas and then in San Francisco and down there quite often. When he was out there he went out every day in his buggy in one direction or another. Mr. Treadwell would lease lands. He would put the price on lands, that were supposed to be oil lands; a price on all of it or the royalties, if it was leased, with a bonus, if there should be one. He had charge **[87]** of that for the Land Department of the Southern Pacific. Mr. Jerome Madden was head of the Land Department of the S. P. If there was an application placed with the Land Department for a lease or purchase of certain pieces of land that were presumed to be oil land, it was referred to Mr. Treadwell by Jerome Madden or the Land Department. Applications were sent to Treadwell on which he placed a price per acre of this land and also placed the amount of royalty, the number of wells that were to be drilled during a certain period of time, and what bonus, if any, was required. Mr. Treadwell placed that on these applications and returned them to the Land Department. All I had to do with regard to these actions of Mr. Treadwell was writing the cor-

respondence in regard to it. If Mr. Treadwell was not in the field at the time, he quite frequently left with certain sections and certain portions of sections—he would leave orders with me what bonus, what price per acre, what royalty was required, and should an application come in during his absence I could fill out the application and return it to the Land Department. I did it, I believe, on one or two occasions. There were quite a number of applications received by Mr. Treadwell; I should say fully fifty, while I was in the Kern River Field, and each one of those took the course that I have indicated. They came first to Mr. Treadwell from the Land Department, of which Mr. Jerome Madden was manager, and they were referred to Mr. Treadwell, and he would make his notations as to what should be obtained, or the provisions that were to be put in the lease; and when that was done they were to be sent back with his recommendation to the same Land Department. This was all done by correspondence. The correspondence would be placed in envelopes marked "railroad business" on them and we would take these to the train and the trainmen would carry our mail. We had a quite a number of maps of different sections of the country and if there was no record of a particular [88] piece on the map, Mr. Treadwell would make an investigation. This was the way in which he got his data from which he made these recommendations that were forwarded to Mr. Madden. He had quite a number of maps and they covered the whole oil region in Kern County in general. They were kept in

his office at Kern River. He had maps of townships; then he had section maps; quite a number of those just of the section. The maps were inked off at different sections stating just what was on that certain piece of land, and there were other data at the bottom in writing stating what the different marks on the maps meant. These maps were annotated. I didn't see any agricultural qualifications or characteristics noted on the maps at all. Mr. Treadwell had nothing to do with the agricultural features of the land. His business was only with the oil land. The name of Charles W. Eberlein is very familiar to me and I believe he was with the Land Department. I think there was correspondence that passed between the offices with his name signed to it, but I can't be positive as to that. That is the same Land Department of which Jerome Madden was at the head. Some of these applications were for the purchase of lands outright and some for leasing. The applications read for purchase or lease or both. None of the leases I referred to were executed by Treadwell, to my knowledge. That was done in San Francisco at the Land Department. The lands to which these applications referred were the railroad lands, the odd-numbered sections. Mr. Treadwell's approval of the application for the purchase or lease was required before the Land Department would execute such purchase or lease. It was absolutely left to him. I remember one letter written by Mr. Treadwell to the Land Department recommending withdrawal of certain sections that he thought were

good oil lands, that they could use themselves, but what those sections were I cannot name. That was all in the Kern River Field. By "themselves" I mean the Southern Pacific. Mr. **[89]** Treadwell was engaged in no other business that I know of other than in the oil business in a representative capacity for the Southern Pacific Company or the Railroad Company. He confined his time exclusively to the oil business of the S. P. Company. I have heard Mr. Treadwell speak of Mr. Eberlein as he would speak of most every one of the men connected with the different offices. No charge was made on the books for oil that was used by the railroad in the operation of locomotives or anything of that kind. There was just a report of the amount of oil that was shipped, the number of cars and the number of barrels to each car. This report was sent to the San Francisco office. I know Mr. H. E. Huntington and Mr. Kruttschnitt and Mr. Hayes and Mr. Hood. H. E. Huntington was president of the road; Kruttschnitt was the General Manager; Charles M. Hayes was President after Mr. Huntington, and Mr. Hood was the Chief Engineer. I have seen Mr. Kruttschnitt at the Kern River Field two or three times and Mr. Huntington only once, to my knowledge. I never saw any of these men at McKittrick. Mr. Treadwell drove these men around over the S. P. lease and then drove them over the lease nearby on one occasion that I remember of. They went to the Thirty-Three and Imperial to examine the pumping station that the S. P. had on that lease. They went on a tour of inspection, but all

these gentlemen were not there at one time. I know Mr. Bienenfeld. He was a surveyor for the S. P. I met him in the Kern River Field and at McKittrick and Bakersfield. When I met him he was a surveyor for the S. P. He and Mr. Burkhalter purchased a piece of land from Mr. Treadwell, or leased it, and with a bonus of $1250, if I am not mistaken. That was one of the applications made to the Land Department and referred to Treadwell. I knew Josiah Owen and E. T. Dumble, the geologist, by sight. I saw them around McKittrick prior to 1904. They were out driving in the Southern Pacific buggy. I don't know what they were doing. I don't think I ever [90] saw them both at one time in the same buggy, but I have seen them each in that buggy at different times. I would see them going in most all directions, driving through McKittrick, first one way and then another, north, east, south and west. I don't know in what capacity they were employed. I have seen them come down off the hills from the Southern Pacific lease. Dr. Schaefer was the Southern Pacific physician and surgeon in that locality at that time.

CROSS-EXAMINATION OF HENRY M. THOMPSON.

By Mr. Lewers:

Q. I understand, Mr. Thompson, that you were employed both at the Kern fields and at the McKittrick?

A. Yes sir.

Q. Did you change back from one place to the other from time to time, or did you spend quite a

considerable period at one place and then go to the other?

A. No, I would go about the first of the month or anywhere from the first to the fifth to McKittrick and spend two days, sometimes, and a little longer. At that time we only had two trains a week from Bakersfield to McKittrick. I had to go out on one train and come back the next, which was two or three days later, and take care of the books out there and then come back to Kern River, and remain there the balance of the month. Before that Mr. Sarnow used to send in the reports to the Kern River office—all bills, all time sheets, all oil reports, were sent in to me and I made out the same at the Kern River office and forwarded it to San Francisco to the San Francisco office.

Q. Up to what time did this practice that you have mentioned continue? [91]

A. I think about six months before I went to McKittrick.

Q. In what year was that?

A. That was in 1900.

Q. Do you mean that Mr. Sarnow sent there reports up to 1900?

A. Well, it was later than that. It was in possibly the fall of 1900 before I commenced going to McKittrick every month.

Q. Then after that you kept the books at McKittrick yourself?

A. Yes sir; I kept the books at McKittrick. I would go out the first of each month and look them

over, at least, and I would take the time sheets and send my reports to the office.

Q. You would be in McKittrick two days each month?

A. Yes sir.

Q. And the balance of the time you were in the Kern field?

A. Yes sir.

Q. How far was the lease in the Kern fields from the lease at McKittrick, approximately?

A. How far from the Kern River to McKittrick?

Q. Yes sir?

A. Fifty-four miles.

Q. How many leases did the Southern Pacific Company have at McKittrick during the time you were employed as bookkeeper?

A. When I first went to McKittrick, one only. The second one was established soon after I went to McKittrick.

Q. That is what was known as the North-end lease?

A. Yes sir.

Q. You had a South-end lease first?

A. The South-end lease first.

Q. Do you remember on what sections those leases were?

A. It is my impression that it was on a portion of 20 and [92] a few derricks were over on 29, if I am not mistaken.

Q. From whom did the Southern Pacific lease that ground, if you know?

A. I can't say who the Southern Pacific leased from.

Q. Didn't you have any information as to who the landlord was?

A. That was not in my department at all—the leasing.

Q. Do you know whether it was leased from any oil company?

A. I can't say.

Q. Did you ever hear anything about the Buena Vista Oil Company?

A. I have.

Q. Do you know whether the Buena Vista Oil Company held a lease on that same ground?

A. I have heard that they did.

Q. Did you hear that at the time?

A. I don't know whether it was that time or not, or since.

Q. Didn't you hear at that time who owned the ground?

A. I heard that Treadwell owned the ground.

Q. Individually?

A. No; holding it for the Southern Pacific, as the rest of the land that was in Treadwell's name.

Q. Was the lease in Treadwell's name?

A. No; I can't tell you that.

Q. Did you ever hear of Treadwell giving a lease to the Southern Pacific Company?

A. I never did. I never heard of any land being in Treadwell's name, but I knew it was in Treadwell's name from—the Southern Pacific land.

Q. Was this lease known as the Southern Pacific South-end lease at McKittrick in Treadwell's name?

A. I can't say positively; no. **[93]**

Q. Was the land on which the lease was in Treadwell's name?

A. Not that I know of. I can't say. It may have been and may not. I paid no attention to any leases. That was not in my line.

Q. Did you pay any attention to the ascertainment of the character of any of that land yourself?

A. No sir; not personally.

Q. You had nothing to do with it?

A. I had nothing to do with leasing the land at all. That was not in my department.

Q. On what sections were the leases in the Kern fields?

A. On Section 3.

Q. All on one section?

A. Yes; all on one section.

Q. From whom did the Southern Pacific lease that land?

A. That came from the government, according to my understanding. Section 3 is an odd section.

Q. They had to lease from the government?

A. I understand it was a patent from the government.

Q. To the Southern Pacific Company?

A. I don't know whether it was the Southern Pacific Company or the Southern Pacific Railroad.

Q. The question is from whom did the Southern Pacific Company hold its lease.

A. That I can't say. I never saw the lease, nor did I have any means of finding out.

Q. Did you ever hear who the landlord was?

A. I have heard that it belonged to the Southern Pacific Railroad Company.

Q. That is Section 3 in the Kern field?

A. Yes sir. **[94]**

Q. You didn't hear that Section 20 at McKittrick belonged to the railroad company?

A. No sir; I didn't hear anything about that.

Q. Did you carry any account of royalty or rentals paid on the lease at McKittrick?

A. I never carried royalties on my books—money paid to anyone for any sections.

Q. Do you know whether any such accounts were kept anywhere else?

A. I can't say. I don't know.

Q. Isn't it a fact that your books were merely for the local expenditures in carrying on the actual oil work?

A. That was all that I claimed that they were for.

Q. Your books covered merely local expenditure? Is that correct?

A. Yes; my books only carried the local expenditures. That is, for payments and for employees. I believe I kept that. That is about the only thing they had to show. The oil that was produced there I kept no record of that on my books, for the simple reason that the report was made to send to the San Francisco office on the first of each and every month.

Q. Report of what?

A. Report of oil shipped to the Southern Pacific Company—Southern Pacific Railroad Company.

Q. To the Southern Pacific Railroad Company?

A. It was delivered to the Southern Pacific Railroad Company. I had standing orders to deliver oil to the West Oakland yards every Tuesday and Thursday, one car each day, to Mr. — I can't call the gentleman's name now—he was superintendent there for a time of that division. They were billed to him.

Q. Do you mean to say that these shipments were made by the Southern Pacific Company to the Southern Pacific Railroad [95] Company?

A. In this way: They were shipped to the superintendent of the Southern Pacific Railroad Company.

Q. Who was superintendent of the Southern Pacific Railroad Company at any point during your employment?

A. At the West Oakland yard—I don't remember who it is now that it was shipped to, but that order came from Mr. R. P. Schwerin by telegram "Ship to West Oakland yard," name of the party, and he was the superintendent, if I am not very mistaken, of that division,—"Ship on Tuesdays and Wednesdays one car of oil, without fail."

Q. Then from what do you draw your conclusion that this man was superintendent of the Southern Pacific Railroad Company as distinguished from the Southern Pacific Company?

A. I didn't know that there was a difference between them.

Q. That is what I am coming at. Then you were

not aware at that time that there was a distinction between Southern Pacific Railroad Company and the Southern Pacific Company?

A. No sir; I always considered that it was the Southern Pacific Railroad Company that owned the oil. I never have been able to get it through my head, while I was with Mr. Treadwell, why there was a difference between Southern Pacific Company and Southern Pacific Railroad Company.

Q. Then you never have understood that there was a distinction between the two?

A. I knew there was a distinction, but I couldn't see the difference.

Q. Well, it must have seemed to you peculiar that the Southern Pacific Company made a lease in Kern fields on its own lands?

A. Mr. Treadwell spoke of it as the Southern Pacific Company. [95½]

Q. Were you not aware at that time that the Southern Pacific Railroad Company was the original company to whom the land grant was given, and that the Southern Pacific Company was a later company operating not only the lines originally owned by the Southern Pacific Railroad Company, but the lines of the Central Pacific Railroad Company and other lines?

A. No sir: I did not.

Q. Now, having that in mind, can you now state whether you had any information or data in your possession with reference to the lease in the Kern field showing that it was leased by the Southern

Pacific Railroad Company to the Southern Pacific Company?

A. No sir. I have no data of that kind.

Q. Did you ever hear anything about that?

A. I never heard.

Q. Then, at the time when you were acting as bookkeeper you never had in mind the relations between these companies? Is that correct?

A. I only had it Southern Pacific Company. That was told me by J. B. Treadwell. But I didn't know there was a difference, and it was quite awhile after that before I ever knew that there was really a difference between Southern Pacific Company and Southern Pacific Railroad Company.

Q. At that time you were not aware of the difference?

A. I was not aware, as orders would come from the purchase and supply department of the Southern Pacific Railroad. Of course the impression was that it was all billed to them. I was working for them and I applied to them for passes.

Q. You handled a great deal of correspondence while you were acting as bookkeeper, did you not?

A. Yes sir.

Q. I show you government's Exhibit I and ask you to [96] examine that carefully, particularly the printed matter on that envelope, and state whether or not the stationery you used was similarly marked.

A. Yes sir. I think it is the same thing.

Q. That is "Southern Pacific Company"?

A. Yes sir.

Q. And it was your understanding, was it not, Mr. Thompson, at the time when you were there as bookkeeper that the oil that was being produced from those leases was being used in the operation of engines on the lines of the road?

A. The Southern Pacific Railroad; yes sir.

Q. That is, whatever company was operating the lines was using the oil? That is your understanding?

A. How is that?

Q. That is, whatever company it was that was operating the lines and running the trains was using the oil?

A. Yes sir.

Q. And you did not differentiate in your own mind at that time whether it was the Southern Pacific Railroad Company or the Southern Pacific Company that was operating the line?

A. I always supposed it was the Southern Pacific Railroad Company that was operating it, though it was called the Southern Pacific Company.

Q. That is, you understood it was called the Southern Pacific Company?

A. It was called the Southern Pacific Company; yes sir.

Q. And the stationery you used was marked—

A. "Southern Pacific Company".

Q. You understood, did you not, that Mr. H. E. Huntington was president of the Southern Pacific Company?

A. Of the Southern Pacific Railroad Company.

Q. From where did you get your information that

he was [97] ever connected in any way, shape or form with the Southern Pacific Railroad Company?

A. I don't know. It was always understood that Mr. H. E. Huntington was president of the Southern Pacific Railroad Company.

Q. Who did you understand was the president of the Southern Pacific Company?

A. Mr. H. E. Huntington. I thought it was one and the same thing.

Q. You didn't know the difference?

A. I didn't know the difference. I didn't know that there was a difference that you speak of.

Q. Do you know who is the president of the Southern Pacific Railroad Company now?

A. Mr. Sproule.

Q. And who is the president of the Southern Pacific Company?

A. I think Mr. Sproule is too.

Q. He undoubtedly is of the latter company.

A. Then he would be president of both companies.

Q. No, that doesn't follow. That is not the fact.

Mr. McCormick—Literally not; in reality, yes.

Mr. Lewers—Literally not and in reality not. And you say that occasionally—well, frequently—I believe you said—as many as fifty times or more communications came to Mr. Treadwell while you were acting as bookkeeper, from Mr. Madden or the land department of the company with reference to applications that had been made to lease or purchase or to lease and purchase. Is that the fact?

A. That is the fact; yes sir.

Q. And when any such application was referred to Mr. Treadwell, you say that he made a report on that application as to [98] whether or not it covered any land that might be valuable for oil for the company?

A. Invariably he did; yes sir.

Q. And the only instances you know where he did make such reports concerning sales of lands or leases, were instances where he received a communication from the land department and reported on it? Is that correct?

A. Yes sir.

Q. Do you know of his making any reports or examinations of the land as to its oil character or as to its containing gold or silver or any minerals except in connection with such applications?

A. Do I know of his making an investigation?

Q. For the company.

A. For the company?

Q. Yes sir.

A. Not to my knowledge.

Q. Have you ever known of his making any investigation of the character of any land with respect to applying for a patent for that land?

A. No; I don't think I ever knew of his making an investigation of that. Not to my knowledge, although he was out constantly investigating land. I don't know for what purpose.

Q. Isn't it a fact that Mr. Treadwell had interested himself in various oil properties individually on even sections and elsewhere?

A. Not to my knowledge.

Q. You never knew of his interesting himself individually?

A. I don't know of any personal interest he had.

Q. He was looking out for the development of oil to run the engines of the road?

A. He was looking out for the development of oil for the [99] Southern Pacific.

Q. That is, he was looking after what you might call the development, industrially, of those oil properties that the company might own or lease? Isn't that the fact?

A. Well, yes; he was. And he also—I have heard him say—he was always looking out for any oil lands that the Southern Pacific owned that could in the future be turned to their use by being developed.

Q. That is, at that time, it is a fact to your knowledge, Mr. Thompson, is it not, that the company had begun to seriously consider using oil on its entire system for fuel?

A. Yes sir; about that time.

Q. And Mr. Treadwell was engaged in an effort to develop sufficient oil for that purpose, was he not?

A. Yes, I presume he was.

Q. That is, to your knowledge he reported to the operating officials of the company, did he not?

A. Well, he was there to attend to all the oil business, and produce all he could.

Q. Perhaps you do not understand my quetsion. Did he not report to Mr. Kruttschnitt?

A. Yes sir; he constantly reported to Mr. Kruttschnitt.

Q. And Mr. Kruttschnitt was in charge of the operating of the road?

A. Yes sir; general manager.

Q. Now, you say that these communications that you have referred to with reference to the land being leased or sold, were sent from the San Francisco office to Mr. Treadwell?

A. Yes sir.

Q. Were all of those that you are familiar with sent by Mr. Jerome Madden?

A. Not in person. **[100]**

Q. Or from his office?

A. His office—oh, there was frequently letters from Mr. Kruttschnitt in regard to the oil business.

Q. I am speaking specifically with reference to the leasing of other individuals.

A. Well, from Mr. Madden's office.

Q. Do you know when Mr. Madden severed his connection with that office?

A. No, but it was after I left the S. P. He was still with that office, I think, when I left.

Q. And you left when?

A. In 1902.

Q. And were you familiar with what was done in connection with any of the oil lands of the company or any leases held by the Southern Pacific Company after the time you left its employ?

A. Do I know what was done with the leases after I left?

Q. Yes.

A. Absolutely nothing.

Q. Then your testimony does not go beyond the period of 1902?

A. I will retract that. I can't be positive whether it was 1902 or early in 1903. After that I know nothing about their transactions in the oil department or any other transactions of the railroad.

Mr. Lewers—That is all.

REDIRECT EXAMINATION
OF
HENRY M. THOMPSON.

By Mr. McCormick:

Q. Were these transactions about which you have testified relating to the applications for lease or purchase of these [101] lands on odd-numbered sections, in any way entered upon the books of the oil department which you kept at Kern River or McKittrick?

A. No sir; I had nothing to do with that.

Q. By Mr. Lewers—There is one other question that I over-looked. You were asked, Mr. Thompson, about a surveyor in the employment of the Southern Pacific Company by the name of Bienenfeld.

A. Yes sir.

Q. You say he and Mr. Burkhalter leased a piece of land. Do you remember where that was?

I think it is right in where the Standard Oil Company have their "tank city" now.

Q. It is in the Kern River field?

A. No sir.

Q. It was not anywhere near the Elk Hills?

A. Oh, my, no. Fifty miles from the Elk Hills.

Q. By Mr. McCormick—With reference to these car-loads of oil that were shipped to the Oakland yards and other places of that kind that you have testified to, you don't know what use they put those to?

A. No sir.

Q. You don't know whether they sold them or used them in their engines or what they did?

A. I have no knowledge of what they did with them at all. **[102]**

B. K. LEE, a witness called and sworn on behalf of the plaintiff, testified as follows:

DIRECT EXAMINATION

I am engaged in the oil business at McKittrick, where I have lived since September, 1900. I have been engaged in that business ever since that time continuously. I was sent to McKittrick by the Belmont Oil Company to take charge of their property at McKittrick. I am familiar with oil lands in the vicinity of McKittrick. I have had no oil experience outside of California. I know what an oil outcrop is, or sand outcrop, or seepage of asphaltum. While I was in that country I observed oil sands, outcrops and seepages. The nearest seepage to the property that I was in charge of was a tar spring on the southwest quarter, Section 12, Township 30 South, Range 21 East. I also observed on Section 13 of the same township, dry oil sand and asphaltum. Section 18, 30-22, outcroppings of sand —dry. And Section 18, 30-22. On Section 17 there was an outcropping. On Section 20, Section 29, Sec-

tion 28, Section 34, Section 35, of the same township, 30-22. On Section 2, 31-23, there was an oil seepage. On Section 21, 32-23, an outcropping of oil sand. Section 22, an outcropping of oil sand, in the same township and range, 32-23. Section 26, 32-23, on that line. I am also familiar with the oil sand cropping on Section 18, 29-21. In Section 35, 29-21; Section 36, 29-21, Section 8, 30-22. These are all dry oil sands. And Section 14, 30-22, an outcropping of sand. That is all I know of the outcropping of sand in that immediate vicinity. I observed these outcroppings shortly after I went to McKittrick. In November or December, 1900, I examined the strike of the outcroppings to the south and east from McKittrick beginning in 30-21, 30-22, and dropping down into 31-23, over into Township 32-23, because it had a bearing on some lands that my people owned. **[103]**

I made a personal examiantion. Some of those outcroppings are on the line of contact with the Temblor Range in the McKittrick formation. I am acquainted with what is known as the Elk Hills. There is a large group of hills lying north of what are known as the Buena Vista Hills. The trend of those hills is almost east and west, a little southeast and a little northwest. Their elevation is about 1500 feet at the point where I took the elevation; that is, on the crest of the hill. I don't know that it is the highest place, but it is along the line of the crest of hills. The crest of the hills runs a little northwest and southeast. I travelled about seven miles in those hills. I should judge that it would be about twelve

miles from the gap in the railroad crossing to Buena Vista Lake. I would estimate that the width of the group of hills from flank to flank, north and south, is about five miles. The surface is a sand, clay, some little shale shows. The general formation is rolling. In some places it is broken by gulches and the land is pretty steep in places. I went over the crest of the hills for seven miles. I went some where in the neighborhood of the southeast corner of Section 26, Township 30 South, Range 23 East, and went up to the southwest corner of Section 36, Township 30 South, Range 23 East, and examined some lands owned by Mr. Buffington on the east side of the Section. I found the township corner there. The reason I went into the hills was because Mr. F. J. Carman, with whom I was associated, wrote me from Bakersfield to go in there and make an examination. That was in the latter part of August, 1909; and he furnished me with a little topographical map to guide me, and said if I found conditions as represented, to report, and also to find out if I could follow out any anticline from there to the northwest. I had observed indications of an anticline towards the western end of the hills in Section 14, Township 30 South, Range 22 East. It is immediately along the railroad **[104]** track where there is a trestle. The railroad crosses the bed of a wash just to the east of the anticline. There is a natural wash or gulch or cut there where the railroad goes through. The anticline is a well defined fold about six to eight hundred feet across the top of it. It exposes gypsum, clay and sand of different char-

acters, and on the south side of the anticline, below to the south and west, the pitch would be about twenty-five degrees. On the north side it was much more precipitous, perhaps forty to forty-five degrees. I first observed that anticline when I went into McKittrick on the train. The train was held up there and we had to stop every now and then to get up steam to make the balance of the distance and I was naturally curious and we walked the last mile into McKittrick that time and I had a chance to observe a few things. I saw the natural fold from the erosion. It is very plain. Its trend is northwest and southeast in the general course of the hills. That is the evidence on which I went in to Section 36, to follow up and determine whether that anticline extended into the hills. I wanted to know if there was an anticline there, and it was on the evidence that I observed when I first went into McKittrick in 1900 on the western end of the anticline that I went back into Section 36, Township 30 South, Range 23 East, for the purpose of determining whether it extended back into the hills. The hills are generally rolling. There is some erosion, but not greatly eroded as you would suppose from the surface formation—the sand and clay. I have observed other hills around the country in different places and these hills, from my observation, are at the present time in about the same condition as they were in 1900. There has been no change in the hills from the time I made the examination in 1900. Sometimes there is much rainfall there in the spring of the year. The climate is a good

deal of a desert nature; it is a hot climate and very little [105] rainfall. There is no water up in the Elk Hills that I know of. I can't say that I know of any water in Township 30 South, 23 East, or in the neighboring sections. I never saw any water in there and very little vegetation. What little vegetation there was consisted of sagebrush and some grass. The sagebrush was sparse. The hills are rather barren. There is a short grass on the slopes in the spring of the year. In the hot season other than the sagebrush there is dry dead grass. The land on the crest of the hill, or on 30 South, 23 East, is not susceptible of agriculture and has value only for grazing. I don' think it has any value for raising crops. I was acquainted with Mr. Owen, the geologist. He worked for the S. P. Company in the capacity of a geologist. I saw him at McKittrick quite frequently in 1903 and 1904. In 1903 I had a talk with him about the anticlinal evidence in Section 14, Township 30 South, Range 22 East. In the spring of 1903 I went to Asphalto and while there Mr. Owen drove up and he asked me if I knew where the pits and shafts were that they got the asphalt from on Section 27. I said I did. He asked me if I would go with him and I did. That was not the first time I talked with him. In this last conversation I asked him if he came in from Section 24, in Township 30 South, Range 22 East. There is an old derrick up there. That is in the Elk Hills. I asked him if he had observed the anticline in Section 14. He told me he had and that it was a strong one. That is all the conversation we had in

reference to that anticline. The first time I saw him was early in 1903. He came to my camp. He asked me if my name was Lee and told me his name was Owen. He said he understood that I knew the corners of the country around there pretty well and would I show him the west quarter section line of Section 11, Township 30 South, Range 21 East. I told him he was a stranger to me and I had been troubled by "Scrippers" and "jumpers" and that I didn't **[106]** care to show anyone any corners unless I knew what business he had there. He told me he was in the Geological Department of the S. P., under Prof. Dumble, and he meant no harm to me whatever. I rode up and showed him the corner on top of the hill. After I made a report to Mr. Carman, referred to in my testimony, he bought 159 acres of the lands which I investigated in the Elk Hills. This was in Section 36, Township 30 South, Range 23 East. That purchase was made for mineral possibilities for oil. The formation of the Elk Hills which I examined in Township 30 South, Range 23 East, has more clays and sand exposed than the country immediately adjoining to the McKittrick Oil Fields. I recommended the purchase of this land for its oil value. Mr. Carman at this time was seeking land for the mineral and oil possibilities. I have met Mr. Dumble. I have seen him around McKittrick eight or ten times, perhaps. When I saw him he was driving in McKittrick, usually with Mr. Owen. He would drive between the town and the oil lease. When he was there he would stop with the Kern Trading &

Oil Company. He and Mr. Owen used the K. T. & O. Team. I had a conversation with Mr. Owen with reference to the Buena Vista Hills. He told me it was a great gas country. He told me he had been around the hills, around the lake, that it was great gas country; that at different places he could put his bar into the ground and remove his bar and get a flash of light. He told me of one place in particular in Section 11, Township 32 South, Range 24 East. He mentioned that as the oil sand cropping. He said he had found evidence of gas in the hills in eleven different places. He said that he could put a crowbar in and withdraw it and could then get a flash by lighting a match. Section 11 is near the Honolulu Oil Company's property. Since those examinations I have been over the country two or three times and have confirmed my opinion that the anticline spoken of is well defined. **[107]** I have not dug into it as it was not necessary. There are asphaltum indications on Section 14, Township 30 South, Range 22 East. On the north flank of the anticline on this section there is a bed of coarse gravel. That is on the side of the cut. The water from the hills runs over it and gives it a yellow color. A superficial examination shows nothing but yellow gravel, but when you break into it it is covered with dry oil. I have heard of the Eight Oil Company. They have locations in there now in Township 30 South, Range 23 East, and are now operating them.

CROSS EXAMINATION OF B. K. LEE.

I was connected with the Belmont Oil company

from the 6th day of September, 1900, untill the 6th day of May, 1905. I had no oil experience before 1900, but since that time I have devoted almost my entire attention to the oil business along the prospecting lines particularly, and some on development. I have had some practical experience in supervising and carrying on drilling operations. I went there in September, 1900, and on the 28th day of December our lessor commenced operations, drilling on the Kern King Well on Section 21. I was the agent of the land at that time. They drilled a well into the oil sand about the time the slump came in the price of oil along about June, 1901. They were finding some difficulties and did no more work on the well. From then on until the winter of 1903 things were very quiet. In the winter of 1903 we began operations on our own original lease in charge of the Belmont well on lots 5 and 6 and Section 11, Township 30 South, 21 East. We finished that well at a depth of 945 feet and it was a very good well, pumping about 80 barrels a day. The price of oil would not justify us **[108]** to go to the expense of putting in a pipe line and we did no more on the property until 1905, when I went to work for the San Francisco-McKittrick Oil Company and the C. & J. Oil Company. With those companies I have had practical field experience in sinking wells. Prior to the time that I ceased working on the Belmont Oil Company I was familiar with the general oil conditions throughout that territory. The deepest well up to the 1st of January, 1905, in that country was 2250 feet, I think. It was either on the east side

of Section 1, Township 30 South, Range 21 East, or on the west side of Section 26, Township 30 South, Range 22 East. It was the McKittrick Oil Company's well; that was the deepest well. The average depth of wells in that field was 800 or 900 feet up to 1200 feet. The other was an exceptional well. I found no oil sand in any portion of Township 30 South, Range 23 East. In 1909 I examined the east side of Section 36 in that township for Mr. F. J. Carman and he purchased it on my recommendation, paying $20.00 an acre for it. I have not been on that particular piece of ground since. I have been on Section 36, however. I don't know whether Mr. Carman has ever done anything on the land. I followed the anticline right through from there to the cut and drove a team right across, a distance of about seven miles. On that trip across that township, the evidences of the wall of that anticline on that section 30 is a very strong pitch to the north. I don't know the section lines—but around in that general course. By driving back and forth you can find and trace the pitch both to the south and to the north. The pitch to the south is a little harder to find than the one to the north. It is a little more moderate to the south. The north pitch was a little more precipitous—northeast, I should say. I found the walls of the anticline to the southwest in five or six places at intervals from half a mile to a mile. Beginning from the railroad cut and crossing over, there would be [109] stretches where I wouldn't find the anticline for a mile and different places where I would find it in consecutive

gulches, maybe within a quarter of a mile. It was not nearly as well marked as that to the northeast, as the erosion had been mostly to the northeast. In that territory I found no oil sand at all. I was looking for anything I could find. I don't pose as an expert; only as a prospector. If a man sent me out to find a certain condition, I can tell him. The western end of that anticline from which I started shows very clearly near a trestle in a railroad cut in the Elk Hills. At that point both flanks or walls of the anticline practically show. The southwest curvature is a very moderate anticline, probably twenty-five degrees, but it plunges underneath the surface of the wash coming from the crest. You can get the pitch there. The strike of the anticline is towards the southeast. I found no indications of that anticline plunging at any point. As far as I could make a superficial examination, the axis of the anticline is practically uniform. I was engaged one day in that examination. I travelled by team. There were no roads there in 1909. I never went beyond the southeast corner of Section 36, Township 30 South, Range 23 East. When I went over to examine that land it belonged to Mr. Button. I found no gas indications on this trip. I never made any locations in my own name. Other than the occasion when I travelled across Township 30 South, Range 23 East, I never went into the Elk Hills. I once went into the southwest corner to locate a man that wanted to find a piece of ground in 31 South, Range 23 East, but otherwise I made no examination of the hills. During the time I was prospecting in

that country, I went practically over the whole country from Taft to Coalinga. At different times, when I had the time and opportunity, I would go out and prospect for information. I know the range of hills called the Buena Vista Hills. I went **[110]** over those, but not very extensively. At that time I confined my attention more to the main range. My headquarters were at McKittrick all that time.

REDIRECT EXAMINATION OF B. K. LEE.

I started out two or three times to make locations in Township 30 South, Range 23 East, but I found that the ground in that country was covered over one, two and three deep with locations by people who owned from eight to ten sections.

RE-CROSS EXAMINATION OF B. K. LEE.

The greatest activity was shown in that country in the matter of locating claims in the latter part of 1899 and the spring of 1900. During that time the country was plastered for miles. Not only those who were experienced in oil, but those who knew absolutely nothing about it, went in there and located the entire country. A number of these locations were made at the Court House at Bakersfield. I say this because in subsequent years I noticed where the ground was located in my immediate vicinity where no person had been in that day.

RE-DIRECT EXAMINATION OF B. K. LEE.

I did not mean in my former answers that all of the people who made locations there knew nothing about oil. There were some who did not, the same as in any mining country; that is names woud be put on

with others that did not know anything [111] about mining. I knew of no locations in Township 30 South, Range 23 East, until after the spring of 1901. The oil excitement began over there in 1899 and continued until the spring of 1901. A great many people flocked in there to investigate oil conditions. I was located at that time five miles from McKittrick on Section 11, Township 30 South, Range 21, and there was a good deal of excitement about the whole country. I don't know whether any people went into the Elk Hills to locate during that excitement, I won't say that there were none, but I don't know of any of my own knowledge. I know of a well drilled recently in Section 30, Township 30 South, Range 24 East. It was brought in by the Associated Oil Company. I was at that well last summer. The Associated had a well on Section 26, Township 30 South, Range 23 East. It showed oil at the time I was there. I think they were still working on the well. I know the wells drilled on the south half of Township 30, Range 23 East. I know other wells that have strong gas showings on the south tier of the sections in Township 30 South, Range 23 East. That land is now known as oil land.

RE-CROSS EXAMINATION OF B. K. LEE.

Work was begun on these wells in Township 30 South, Range 23 East, in the year 1910. It was told in my hearing by men in charge of the work that oil was struck in the well on Section 30, Township 30 South, Range 24 East, at 2700 feet. I don't know if that well has produced. I have not seen the well

since. I don't know if the well on Section 26, in that same Township, produced any oil. I do not know whether or not it is now being worked. I do not know any well in that township or in the Elk Hills that you would call a paying well. I have not been there since, perhaps, August of last year. I saw an item **[112]** in the paper the other day that they began repairing those wells, but further than that I know nothing. There is no pipe line from McKittrick to those fields except for fuel supply and water has to be pumped into those hills to operate those wells from the Buena Vista Lake, which is quite an expensive proposition. In 1900, 1901, 1902 and 1903 it would require a great amount of capital to go in and operate there and I would not have considered it. I never thought of it at that time but if I had had the capital I might have considered it. Of course, when a man goes to sinking a well in new territory like that he does not anticipate going to any great depth. He finds that out after making his expenditure. I don't know what my state of mind would have been if I had to go to that depth under the conditions which existed prior to the 1st of January, 1905, in that territory. I was not looking for that sort of territory at that time. I was engaged in that time in work over in Township 30 South, Range 21 East. From 1901 to 1907 there was a very lax time and not very much interest taken in oil on account of the prices. There was no stimulus for a person to acquire more property than he had and that was the condition I was in at that time. I had all I could carry on.

J. I. WAGY, called on behalf of the plaintiff, having been first duly cautioned and solemnly sworn to testify the truth, the whole truth and nothing but the truth, testified as follows:

DIRECT EXAMINATION.

By Mr. Mills:

Q. You were sworn here by Mr. Longley?

A. Yes sir.

Q. You live in Bakersfield, I understand?

A. In Maricopa. [113]

Q. When did you first go into that field over there?

A. In Maricopa district?

Q. Yes.

A. In '96.

Q. Had you been in Kern County prior to that time?

A. I had been in Kern County since November, 1893.

Q. What brought you into that part of Kern County, Mr. Wagy?

A. I did the freighting there for several years from Bakersfield to Sunset district before the railroad was built in there.

Q. That is, hauling freight across there?

A. Yes sir.

Q. What road did you take to go from Sunset to Bakersfield?

A. Well, I followed the county road south and west from Bakersfield till I struck the plains east of the Sunset field, then almost a direct line across

the plains in a westerly or southwesterly direction toward Sunset.

Q. Was Buena Vista dry during any time that you were freighting there?

A. Yes sir.

Q. Did you ever cross the bed of the lake?

A. Yes sir.

Q. Did the road lead across it?

A. No; the road led several miles south of the lake.

Q. When the lake was dry, did your route carry you near the Buena Vista Hills or the Elk Hills in crossing the lake?

A. Right by the east end of the Buena Vista Hills, but not near the Elk Hills.

Q. You know where the Elk Hills are located?

A. Yes sir.

Q. Did you do any freighting through those hills. [114]

A. No sir; not at that time.

Q. Have you ever at any time?

A. Well, I have freighted five hundred tons of stuff out of there in the last ninety days.

Q. Through those hills?

A. Yes sir.

Q. What route did you take?

A. The material that I hauled out of there was on the south slope of the Elk Hills, and I hauled it across the Buena Vista Hills, most of it, to Maricopa.

Q. Did you ever make any locations in the Elk Hills for oil?

A. Yes sir.

Q. Will you kindly give the names and initials of your associates, so far as you remember them?

A. H. A. Blodget, W. E. Youle, Solomon Jewett, F. Roper, H. L. Packard, T. J. Packard, C. W. Lamont and N. C. Farnsworth.

Q. Now, the gentlemen whom you have named, were they in the first locations you made there?

A. Yes sir.

Q. Where were those locations made, Mr. Wagy?

A. Well, they were all over the Elk Hills in 30-23, some in 31-23, 30-24 and 31-24.

Q. How many sections of land in the aggregate did you locate?

A. Some fifty-odd sections, as I remember it.

Q. Were these all located for oil?

A. Yes sir.

Q. What caused you to locate the particular ground that you did locate?

A. I was crossing the hills there with a band of mules, and in coming down a canyon I discovered a seepage that seemed to [115] be an oil seepage; and I got down off my horse and examined it, and it looked very much like the seepages that I had seen in the Sunset district, and it interested me very much, and I called the attention of Mr. Blodget of the firm of Jewett & Blodget for whom I was freighting to the seeps, and then afterwards I took some of the sand into town to Mr. Blodget, and we discussed the advisability of locating it, and he said he would have his superintendent from the Sunset fields meet me over there to let him examine the ground, and he came

over to my place where I was farming—I was farming at that time on Miller & Lux's land right due north of the Elk Hills—he came over and stayed all night at my ranch, and the next day we went over in the hills and I took him to this place where the seepage was and he examined it and we rode around the hills adjacent there for two or three miles, and Mr. Youle said it looked pretty good to him.

Mr. Lewers—I object to what he said as hearsay and no opportunity given us to cross-examine Mr. Youle's statements.

Q. By Mr. Mills—Go right along.

A. He said it looked pretty good to him, and he believed it was worth spending some money on it, but that he couldn't determine whether that was an oil sweat or seepage or sulphur. But the formation looked pretty good to him, and he thought it was worth spending some money to try it and see.

Q. Is Mr. Youle whom you have mentioned the man who was foreman for Jewett & Blodget in the Sunset field and came up there?

A. Yes sir.

Q. Did he come as an oil expert to examine the seepage to determine whether to make locations there?

Mr. Lewers—Objected to as leading and suggestive.

A. Yes sir.

Q. By Mr. Mills—What date was it that you discovered this oil seepage?

A. I think as near as I can remember it was sometime [116] during the year 1900.

Q. And how soon after you discovered it did you inform Mr. Blodget?

A. Well, I can't say as to the exact date. It was perhaps two or three weeks. The first time I saw him afterwards.

Q. How soon after that did Mr. Blodget order his oil expert, Mr. Youle, over there to look at it?

A. Well, it was some time. Two or three months after that, before he came over there to look over the ground.

Q. To the best of your recollection did he come there to look at the ground in the year 1900?

A. Yes sir.

Q. How much time did he spend out there looking over it?

A. We were only in the hills a little more than half a day. We rode over there early in the morning and I think we got back to the ranch about two o'clock in the afternoon or 2:30.

Q. Who was in the party that rode over?

A. Just Mr. Youle and myself.

Q. Did Mr. Youle get down off his horse and make a detailed examination?

A. We walked over the country, through several sections.

Q. Did Mr. Youle determine at that time whether there was any anticline there?

Mr. Lewers—Objected to as calling for the conclusion of the witness as to the determination in the mind of another individual, and calling for hearsay and not the best evidence.

A. I don't remember his mentioning anything about the anticline.

Q. How extensive was this cropping of sand that you speak of?

A. Well, it was just a small outcropping in the bottom of the canyon and kind of on the side of a bluff in the bottom of the canyon.

Q. What section, township and range was it? [117]

A. It was on Section 32, 30-24.

Q. On the strength of that discovery did you discuss with Youle or anyone else the propriety of making some locations with a view of acquiring the lands for oil purposes?

Mr. Lewers—To which we object on the ground, first, that it is leading and suggestive and, second, that it calls for hearsay testimony.

A. Well, yes. We talked it over in a general way, and then afterwards Mr. Blodget called me into Bakersfield in regard to locating the property, and he made a proposition—

Mr. Lewers—I object to any statement of what Mr. Blodget said because it is not responsive, and on the additional ground specified in the original objection.

Q. By Mr. Mills—State what Mr. Blodget said.

A. He made a proposition for taking in a number of his friends and associates and locating the entire country there.

Mr. Lewers—I desire at this to give notice that I shall move to tax costs of all this hearsay testimony against counsel who is calling for the same.

Mr. Mills—Proceed.

A. The proposition was agreeable to me and we organized a company and procured surveyors who went in there and surveyed all of the hills there, and all of the unsurveyed ground, and mounded—built mounds at each corner and along the section lines and half section lines and quarter section lines, and then placed location notices on them.

Q. Were those location notices recorded with the recorder of that county?

A. Yes sir.

Q. Do you recall that there was any land in 30-23 unsurveyed at that time?

A. Yes, I think there was. [118]

Q. Was that some of the land that you refer to as having had surveyed?

A. Yes sir.

Q. Was all of that unsurveyed land included within the boundaries of the locations that you refer to—on the hills, I mean?

A. I can't be positive whether it was or not. There was some other parties came in there before we finished up and located six sections, and my best recollection is that they got some of the unsurveyed land too.

Q. You got all that you could?

A. We got all that we could; yes.

Q. Did your locations include the tops of the hills known as the Elk Hills as far as they extended?

A. Yes sir.

Q. Did you locate both odd and even numbered sections?

A. I would qualify my former answer a little bit. We didn't go to the east end of the Elk Hills. We didn't go but—on the north slope we went one mile east of 32, 30-24, and on the south slope we went perhaps a couple of miles further east.

Q. In 30-24?

A. Yes sir; in 30-24.

Q. East, you say?

A. Yes sir.

Q. But west you went as far as the hills extended?

A. Yes sir.

Q. That would include that part of the hills which is embraced in 30-23?

A. Yes sir.

Q. State whether or not the first location notices you had were printed notices or written notices. [119]

A. They were typewritten.

Q. And the second set of relocations that you made, in what were they?

A. I believe the second set were typewritten.

Q. Was there a third set?

A. On a portion of the land, yes.

Q. What were they?

A. I believe those were printed, but they were all signed on the ground. That is, the names were put on as the location notices were posted.

Q. Did you at that time regard the Elk Hills as oil territory?

A. I surely did or I would not have put in my time there.

Q. Did they include the lands embraced in 30-23, the top of the hills there, in the south half of the township?

A. Yes sir.

Q. Did Mr. Youle regard it as good oil territory?

Mr. Lewers—To which we object on the ground that it calls for the conclusion of the witness as to somebody else's mental condition.

A. We went in there on his recommendation as much as anything else.

Mr. Lewers—I move that that be stricken out as not responsive.

Q. By Mr. Mills—Was Mr. Youle at that time an oil expert in the Sunset field?

A. Yes sir.

Q. Was he regarded by oil men as a geologist?

Mr. Lewers—To which we object on the ground that it is vague and indefinite, not specifying who the oil men are, calling for hearsay testimony, and not the best evidence of the qualifications of Mr. Youle. **[120]**

A. He was generally considered a good, thorough oil man.

Q. And was in charge of all the properties there?

A. Yes sir; he was in charge of the Jewett & Blodget holdings.

Q. And they had extensive oil holdings at that time?

A. Yes sir; they had several hundred acres in the Sunset district.

Q. Do you know anything about the bringing in of that railroad from Bakersfield to McKittrick?

A. That was before I came to Kern county.

Q. Who surveyed the lands for you on the unsurveyed portion of the Elk Hills?

A. Mr. C. W. Lamont was one of the men, and we had another surveyor out there for several weeks, but I don't recall his name.

Q. Was that consultation and meeting of your associates and yourself with Mr. Blodget called after the report of Mr. Youle upon the oil possibilities of the Elk Hills?

A. Yes sir.

Q. And was it in response, if you know, to the report that he made?

A. Presumably so; yes.

Q. Do you know whether Mr. Blodget himself regarded the land that you located as good oil land?

A. I don't know of my own knowledge whether Mr. Blodget was ever on the land or not.

Q. He had been operating in that country, had he not?

A. He had been operating the Sunset district several miles southeast of that.

Q. Who had charge of the field work of this company for your associates?

A. C. W. Lamont. **[121]**

Q. What did you do in the way of developing? Did you make any roads or do anything of that sort?

A. Yes sir; I took my teams in there and built a road in from the north slope to near the center of Section 32, 30-24, and we built a house and a stable in there, and Mr. Lamont had a crew of men in there for several weeks digging shafts.

Q. Whereabouts were those shafts?

A. I can't say as to the location of those shafts, as I was not over the ground very much after he was in there with his crew of men.

Q. What year was that work done?

A. To the best of my recollection in 1901.

Q. Did people in the immediate vicinity around McKittrick and the oil fields adjacent know of these locations, to your knowledge?

Mr. Lewers—To which we object as calling for the conclusion of the witness as to what somebody else knew.

A. Well, there was quite a stampede of people came in there to relocate the following January after our first locations.

Q. By Mr. Mills—On account of the oil excitement?

A. Yes sir.

Q. And did they relocate any of your locations?

A. Yes sir; it was pretty well plastered before sun-up.

Q. Did they plaster any locations in 30-23 on your locations?

A. Yes sir.

Q. Now, in Section 32 of 30-24, did you notice any smell of gas?

A. I did at that point where I discovered the first seepage.

Q. State whether or not, if you know, the land you have **[122]** described as having located by you and your associates was generally known among oil men

and others around in that country, as valuable for petroleum.

Mr. Lewers—To which we object as calling for the conclusion of the witness, calling for hearsay testimony, and that it is vague and indefinite and does not ask for any definite standard or test by which the character of this land is to be determined.

A. Well, I can't say as to what the general opinion among oil men was.

Q. By Mr. Mills—You say there was a stampede in there?

A. Yes sir; but the locators that came in there were mostly Bakersfield people. I don't remember any of them that at that time were connected in the oil business in any way.

Q. You mean that none of the people that went in to locate lands were in the oil business?

A. No sir.

Q. When they located lands they got in the oil business, didn't they?

A. They were trying to.

Q. Were there many people out there during that year—the year of the stampede?

A. Oh yes; I should say there was a hundred different people out there, to my knowledge.

Q. Have you been over these lands pretty much yourself in the Elk Hills?

A. Yes sir; over every section.

Q. Have those lands any value for agriculture?

A. No sir.

Q. Is there enough rainfall generally there to raise a crop?

A. Not since I have been in the country. [123]

Q. And if there was enough rainfall, are the lands located topographically so as to raise a crop?

A. There would be small patches of it that would be, but generally speaking, no.

Q. Why?

A. It is too rough.

Q. What kind of a climate have they there?

A. It is rather a dry, warm, desert climate.

Q. Have the lands in the springtime any vegetation at all?

A. In ordinary years, yes.

Q. Sufficient to graze sheep?

A. Yes sir.

Q. How long does that last?

A. From sixty to ninety days.

Q. During the rest of the year is there any chance for sheep to make a living there?

A. If they didn't eat it all in the spring the dry feed would be good.

Q. Was there much money spent in there in perfecting those locations?

A. Yes sir; there was a considerable amount of money spent but as to the amount I couldn't say.

Q. Was it in excess of several thousand dollars in 30-23?

A. Yes sir.

Mr. Mills—Take the witness.

Mr. Lewers—How much is "several"?

Mr. Mills—"Several" would be more than one and possibly more than two.

CROSS-EXAMINATION
OF
J. I. WAGY. [124]

By Mr. Lewers:

Q. How much money was spent in 30-23?

A. I can't tell you.

Q. You say in answer to Mr. Mills' question that it was in excess of several thousand. What does that mean to you?

A. Well, I would say anything in excess of three or four thousand.

Q. How much of that money did you spend?

A. I didn't spend any. There was an agreement between the other people and myself that my part of the expenses should be paid by work and by team work. I furnished teams for all of the team work that was done in there and hauled all the supplies in there and I put in my own time and part of the time had two or three men from the ranch when we were surveying, and that all went in towards my part of the expenses.

Q. How many of you were associated together in these locations that you made in 1900 or 1899?

A. Ten or eleven of us.

Q. I understand you to say that you located fifty sections in all.

A. In the neighborhood of fifty. I believe it was a little bit more. We were not overlooking anything that we thought might be oil land.

Q. You did miss these six sections in 30-23?

A. The other fellows beat us to it, I guess.

Q. So, there were around sixty sections that were located at that time. You say there was somewhere around four to five thousand dollars spent in Township 30-23. Is that correct?—on the unsurveyed land?

A. That much or more, but I can't say as to how much more.

Q. How much was spent on the other locations outside of that township. **[125]**

A. I can't tell you what was spent on each separate township, but I know we had about thirty men in there for several weeks at one time.

Q. What were they doing?

A. They were surveying and building mounds, and there was several shafts dug.

Q. Where were these shafts dug?

A. I can't tell you the point now or the sections where they were dug. I did know at the time as we made a map that Mr. Lamont and I prepared, and he marked on that map where each one of the shafts were sunk. But I have not seen the map for three or four years.

Q. Were you at any of those shafts yourself?

A. Not after they were dug.

Q. Were you at the time they were dug?

A. While they were digging, yes sir.

Q. Did any of those shafts reveal mineral in any quantity—

A. No, not when I was there.

Q. By Mr. Mills—Had you finished your answer?

A. Not quite. I was going to add that when I

was there when Mr. Lamont and I rode over the country looking at the locations, and I wasn't on the ground afterwards in other places.

Q. By Mr. Lewers—Do you know of any of those shafts revealing mineral?

A. I do not.

Q. Never heard of it?

A. No sir.

Q. So far as you know none of them revealed mineral?

A. Not to my knowledge.

Q. They were simply shafts dug in the hills without regard to whether you found anything or not?

A. We used to consider in those days that we had to do so [126] much assessment work, and it was done for assessment work purposes.

Q. Did that disclose any mineral in place?

A. Not to my knowledge.

Q. You also understood that you had to do a certain amount of location work?

A. Yes sir.

Q. Was that location work done on all of these claims?

A. It was scattered all over the hills, but the shafts were not sunk on all of the claims.

Q. Then there were many claims on which no work was done?

A. Except the surveying and mounding.

Q. That is, marking out the boundaries was all that was done upon many of the sections?

A. Yes sir.

Q. And on the other sections where you did dig shafts it disclosed nothing?

A. I don't know whether it did or not.

Q. You don't know of anything that was disclosed?

A. I do not.

Q. And you say that the following year a number of people came in there and relocated many of your claims?

A. Yes sir.

Q. Did you make any effort to prevent their doing so?

A. No sir. We went in there and relocated all of it ourselves.

Q. That is, you relocated all of it?

A. Where we didn't have our assessment work done.

Q. Did you continue to do that afterwards?

A. Yes sir.

Q. For how long?

A. Six or eight years. In fact, we kept on on part of it [127] till the lands were withdrawn from entry.

Q. Did you in any work that you did on any of those relocations ever discover mineral in place anywhere?

A. No sir.

Q. What did your relocation work consist of from year to year?

A. It consisted of posting notices on the land and recording the same.

Q. That was not very heavy labor?

A. No sir; it was while it lasted, but that part didn't last long. We had to go out there at twelve o'clock at night and lay in the sage-brush and pretty near freeze to death till twelve o'clock, and then see if we could beat the other fellow to it.

Q. Then you did nothing but post the notices?

A. We did some work. We kept Lamont there three or four years.

Q. What was he doing?

A. We considered he was trying to hold possession of the ground.

Q. What was he doing?

A. Riding around over the country.

Q. Was he doing any work besides riding around?

A. No; nothing towards development work.

Q. Do you know of any discoveries that he made during that time?

A. No sir.

Q. Of mineral of any kind?

A. I do not.

Q. Don't you know as a matter of fact that he did not discover mineral of any kind?

A. I do not. [128]

Q. You never heard of his discovering any, did you?

A. Yes.

Q. What did he discover?

A. Well, he told me that he had discovered oil formations in different points on the land, and he had marked out on this map that I speak of where they were.

Q. Did he discover any oil?

A. No.

Q. Then the only mineral discoveries that he made that you heard of were some oil formations?

A. Yes sir.

Q. How many sections do you now have locations upon?

A. None.

Q. You have entirely abandoned all of them?

A. Yes sir.

Q. Have you attempted to relocate any of them at any time within the last two or three years?

A. No sir; not since the land was withdrawn from entry.

Q. Is the land now withdrawn from entry?

A. I understand so.

Q. Still is?

A. I think so.

Q. Have you ever made any inquiry to know whether the withdrawal was removed?

A. Not recently, no, because the whole country was relocated again and derricks built all over it.

Q. The lands were withdrawn from entry about February, 1900, were they not?

A. Not that ever I heard of.

Q. You had locations made on that ground after February, 1900, did you not?

A. Yes sir. [129]

Q. And continued to relocate on the 1st of January up to what time?

A. 1908 or '9, on a portion of the land.

Q. Up to 1909? How much land up to 1909?

A. I think we had dropped all but about three sections.

Q. And where are they?

A. One of them was section 32, 30-24. I don't remember the other two sections now. They were right around there or close to it.

Q. Any of them in 30-23?

A. There might have been one of them. I can't say positively. There might have been one section in 30-23.

Q. Which section was that?

A. I can't tell you; I don't remember now. In fact, the last locations put on there, I didn't do it. There is a friend of mine living here in Los Angeles that wanted me to let him in on it, and I gave him a map of the country and he went up there. He asked me before he went what sections I wanted him to go in on, and I said outside of 32 I would leave it to him, as he was better posted on oil than I was, and I would leave it to his judgment.

Q. Do you know what he did?

A. No sir.

Q. Did you ever inquire?

A. Yes sir.

Q. Did you ascertain when you inquired?

A. No, for the reason that the location was lost and we found out it was located by other people. We found other people had taken possession of our cabin and made their location notices out and recorded them and doing work on the ground.

Q. What where they doing?

A. Digging pits for fuller's-earth or something that they [130] claimed to have discovered, and I went home and forgot about it.

Q. Dismissed it from your mind?

A. Yes sir.

Q. Had more important things?

A. I wasn't looking for a fight, when they had the best of it.

Q. You say there was a regular stampede after you made your locations? What year was it?

A. It was either the 1st of January, 1901 or 1902. I am not positive which.

Q. And you say none of these people were oil men?

A. None that I knew of were oil men.

Q. Commonly known as "tenderfeet"?

A. Yes; "hayseeds" like myself.

Q. And isn't it a fact that during the oil excitement such men located pretty promiscuously, whether there were oil indications or not?

A. I presume it would be so.

Q. Do you know as a matter of fact whether they did?

A. Yes; I think there were some parts of the country located where there were no oil indications in sight.

Q. When you and your ten associates went in there and located between fifty and sixty sections there, did you seriously anticipate or expect that you

were going to go ahead and develop all of that property?

A. We didn't expect that we would do it ourselves, but we expected at that time to interest people in there to lease it.

Q. It was a speculation, wasn't it?

A. And to improve what we could improve, and the fact of the matter was we were in a very fair way of accomplishing it when the slump came in the oil business.

Q. That is, you took it up as a speculation? [131]

A. We took it up to make some money out of it if we could.

Q. Did you think of the amount it would cost you to do the location work on those sections that you took up?

A. That it would take to do the location work?

Q. Yes; just the location work.

A. I never figured it up; no. We went in and located it and let the fellows that put up the money figure.

Q. Do you know how much was put up altogether that first year?

A. I don't know of my own knowledge. It was discussed amongst our people, though, that there were about $40,000 spent.

Q. It would take twice that to do the actual location work on the ground that you had?

A. No sir.

Q. How many claims did you figure to the section?

A. Four.

Q. And you now recollect how many sections you had altogether?

A. Somewhere in the neighborhood of fifty.

Q. But it was more than fifty?

A. I think there was fifty-one or fifty-two sections, to the best of my recollection.

Q. Do you know whether this stampede of people that came in after you had located all this territory did their location work?

A. All I know of their doing was to come in and post their notices—location notices—and record them.

Q. Did you ever know of any practical oil men going in there to relocate any of those claims that you had located?

A. Not at that time, no sir.

Q. You mean that you did know of their doing so at some other time? [**132**]

A. Yes sir.

Q. When?

A. When they took our last three sections away from us.

Q. When was that?

A. 1908 or '9.

Q. Then prior to that time you didn't know of a practical oil man going in there and relocating any of the ground that you had there?

A. Outside of my own associates, I do not.

Q. That ground was generally understood by you to be open to relocation, was it not?

A. Yes sir; it was at that time.

Q. And that was generally understood in the community, was it not?

A. Yes sir.

Q. Now, you say the last time you hauled any freight in the Elk Hills was within the last ninety days?

A. Yes sir.

Q. What was that?

A. I hauled some rigs out of the Elk Hills to Maricopa.

Q. Out of what portion of the Elk Hills?

A. The south slope.

Q. In what section?

A. I don't know what section they were on. I was not interested in the property at all. I was just contracting to take the stuff out.

Q. For whom?

A. Charles Dickinson of Maricopa.

Q. Do you know to whom the rigs had belonged —the derricks?

A. He bought them, I think, at sheriff's sale. I don't remember now. I don't know that I ever did know whom they [133] belonged to.

Q. Can you fix any closer just where they came from? Can you fix the township from your knowledge of that country?

A. Well, they were very close to the corners of 30-23, 30-24 and 31-23 and 31-24. They were right near the corner of those townships.

Q. But you don't recollect which township they were in?

A. I do not, because I was not there for so long that I didn't know where the line runs there, and while I was freighting in there, I was only there twice.

Q. Were they up in the hills or where?

A. They were back in the hills, I should say, about a mile and a half.

Q. How many of those derricks did you haul out of there?

A. Eight complete rigs.

Q. You say when you made the locations, you and your associates, you thought the Elk Hills was oil territory?

A. Yes sir.

Q. Could you say at that time that you knew it contained valuable oil deposits?

A. No, I couldn't say such a thing as that, of course.

Q. That is, you thought it was a prospect that would warrant taking a chance on?

A. Yes sir.

Q. Had you any idea how deep you would have to go to find oil?

A. No sir.

Q. Had you any idea whether or not if you did go down you actually would find oil?

A. We had an idea that we would, or we would not have gone in and spent any money on it.

Q. You didn't spend any money putting up a derrick and [134] putting a rig in there?

A. No sir.

Q. Did you ever attempt to do so?

A. No sir.

Q. Did you ever make any arrangements to do so?

A. We were, when the slump in oil came.

Q. How long did that slump continue?

A. Six or seven years.

Q. Up to when?

A. 1907 or '8.

Q. When did the slump begin?

A. In the summer of 1901, to the best of my recollection.

Q. From the time you made your locations in '99, did you endeavor to do any actual drilling or oil development work?

A. I did not.

Q. Were you in a position where you could have interested capital, you or any of your associates?

A. Yes sir.

Q. And plenty of it?

A. Yes sir.

Q. Now, there is a considerable portion of the Elk Hills that is used for grazing during the spring months?

A. Yes sir.

Q. You have seen sheep grazing over that entire country, have you not?

A. Lots of times.

Q. And in ordinary years the winter and spring rains produce quite considerable grass, do they not?

A. Some years it produces a very fair feed crop.

Q. And that furnishes feed for sheep for how long?

A. As long as the grass stays green; from sixty to ninety days. [135]

Q. And then the sheep are moved to the summer range?

A. They take them out of there. I don't know where they take them.

Q. You are not familiar with the sheep business?

A. No sir.

Q. Did you ever see anything else except sheep?

A. On the lower hills I have seen cattle.

Q. Do you know of the elks grazing in there?

A. Yes sir.

Q. How many of them?

A. About two hundred.

Q. Are you familiar with Section 16, Township 30 South, Range 23 East?

A. No.

Q. Do you remember a portion of that township that is now under cultivation in small ranches?

A. No; I do not.

Q. When were you last in there?

A. I haven't been on the north slope since 1906.

Q. Was there any oil shown at the place where you removed these derricks within the last ninety days?

A. Yes.

Q. What was it?

A. Well, there was oil scattered around there. I don't know how it got there. There was one of the rigs where they had drilled a hole down several hundred feet deep, that there was a good deal of oil all around there, and a big tank of oil standing there.

Q. Do you know whether it was hauled out of the well or hauled there?

A. I don't know how it got there. I emptied it on the ground to get the tank out. [**136**]

Q. How about the other rigs?

A. There was one, though, that had a small amount of oil in the tank.

Q. Could you determine where the engine had been located?

A. Yes sir. I took it down.

Q. Was that near where you found the oil?

A. Yes sir.

Q. And every indication was that the oil was hauled in from somewhere else?

A. Presumably so, yes.

Q. No doubt about it?

A. I would hate to say that it came out of the ground. I didn't make any investigation of where it came from.

Q. You found oil on the bearings of the engine, too, didn't you?

A. Yes sir.

Mr. Lewers—That is all.

REDIRECT EXAMINATION OF J. I. WAGY.

By Mr. Mills:

Q. The order of withdrawal that you refer to was in 1909—when the land was withdrawn?

A. Yes sir.

Q. That is, the Secretary of the Interior's order of September, 1909?

A. Yes sir.

Q. What is this land worth for pasture,—the land on 30-23?

Mr. Lewers—Objected to on the ground that no foundation is laid to show that the witness has knowledge of the rental **[137]** value of the land for pasturage in that vicinity. On the contrary, it appears from the witness's testimony that he does not have such knowledge.

Q. By Mr. Mills—What value has it for pasturage?

A. You mean the rental value?

Q. Yes.

A. I should say about ten cents an acre. That is as much as I would pay for it.

Q. Per year?

A. Yes sir.

Q. You say you have seen elk in there?

A. Yes sir.

Q. During most of the season don't they graze in the flats?

A. They graze in Miller & Lux's alfalfa field.

Q. They wouldn't get very much sustenance in those hills?

A. Not in the summer, no sir.

Q. Did you know anything about the railroad company known as the Southern Pacific Railroad Company selling as agricultural lands certain portions of the south half of Township 30, Range 23 East —the odd numbered sections—in 1904?

A. No sir.

Q. You had locations on that land yourself at that time?

A. Yes sir.

Q. State whether or not in any part of the year 1904 those locations which you made were on the records in Bakersfield, Kern County.

A. They were.

Q. Were the mounds on the ground? The monuments that you built there locating your claims there during the year 1904?

A. Yes sir. [138]

RECROSS-EXAMINATION
OF
J. I. WAGY.

By Mr. Lewers:

Q. Had you made a discovery of mineral on any one of them?

A. No sir; not to my knowledge.

Q. Mr. Wagy, what part of the Elk Hills do you now consider to be mineral, if any?

A. I don't know. That is a pretty hard question to answer, because I have not been in the Elk Hills only twice since 1906.

Q. Do you consider the western portion of the Elk Hills to be mineral or oil bearing?

A. I have not been in the western portion of the Elk Hills since 1906.

Q. The question is, do you now consider it to be mineral lands or oil bearing lands?

A. I do, because I have seen nothing to change

my opinion from my former opinion when I was interested there.

Q. That is, you consider both east and west portion of the Elk Hills to be mineral and oil bearing lands?

A. I can't say that about the east, especially the southeast, because I hauled a lot of material out of that country, which was abandoned, which would naturally make me think there was no oil there.

Q. In the southeasterly part?

A. Yes sir.

Q. How about the western part?

A. I haven't been there myself, but I have heard they struck oil there. I would naturally consider it was good oil territory.

Q. Are you acquainted with a man named Myers —Alfred [139] Myers?

A. No sir.

Q. Did you not meet a man named Alfred Myers in the first week of this month and have a discussion with him as to the character of the Elk Hills?

A. What was he? An inspector? There have been so confounded many around there of those people on forest reserve business—

Q. No; he was a field agent of the Southern Pacific.

Mr. McCormick—Railroad or Company?

Mr. Lewers—Railroad Company.

A. There was a gentleman saw me in there one day, but I can't say what his name was.

Q. You had a conversation with him?

A. I did.

Q. Did you not in that conversation state to him in substance that you didn't regard the western portion of the Elk Hills and western portion of Township 30 South, 23 East, as mineral or oil bearing territory?

A. No; I never made any such statement as that.

Q. Did you state to him anything in substance to the effect that any portion of the Elk Hills did not contain oil?

A. Yes sir.

Q. What portion?

A. The portion where I hauled the material out of.

Q. Did you not also tell him that the western portion, and the western portion of this Township 30-23, in your opinion, was non-mineral?

A. No; I didn't make any statement like that because, as I say, I have not been in that country myself since 1906, and at that time we were in there chasing elk and not looking for oil lands. [140]

REDIRECT EXAMINATION
OF
J. I. WAGY.

By Mr. McCormick:

Q. When was it that you met this party?

A. It was some three or four weeks ago.

Q. Did he give you his name?

A. Yes sir: he introduced himself.

Q. Do you remember whether it was Myers?

A. Yes sir; I believe it was Mr. Myers.

Q. Did he tell you what his business was or why he wanted to talk to you?

A. Yes sir.

Q. What did he say about that?

A. He said he was there looking for information for the S. P. Company in regard to the Elk Hills, and he asked me a few questions about it and he asked me if I was the Wagy on the early locations in there, and I told him I was, and he asked a question at that time, "Did you consider that oil territory?" And I told him "Most assuredly I did, or I would not have spent my time and money there."

Q. Was there anyone with him?

A. There was a number of people in the office at that time.

Q. Which office was that?

A. In my office.

Q. Your own office?

A. Yes sir.

Q. Is that where you had the talk with him?

A. Yes sir.

Q. How long did the conversation last?

A. Only a few minutes. [141]

Q. Did you see him more than once?

A. No sir.

Q. Did he mention the fact that it was in connection with this present suit that he was up there or seeking to acquire information?

A. I don't remember whether he mentioned that directly or not, but I inferred that it was.

Q. Did he talk to anybody else there, to your knowledge, about the same matter?

A. Not to my knowledge. He asked me about some parties that had been in there, and I told him where to find one man—a man named Kenzie.

Q. What were his initials?

A. David.

Q. What is his address?

A. Maricopa.

Q. Have you told us now about all this Myers said to you and you said to him at the time?

A. I think so, because we didn't talk very long, and when I made the statement that I did about what I thought about the country when I made the locations, he kind of laughed and he said "I don't think you will do me much good", or something like that, and we laughed it off and he bid me good day and left.

RECROSS-EXAMINATION
OF
J. I. WAGY.

By Mr. Lewers:

Q. He didn't make any effort to conceal his purpose in seeing you?

A. No sir.

Q. Or his identity? [142]

A. No sir. He told me who he was and that he was there—I couldn't say positively whether he said it was for this case, but anyway, I inferred that it was regarding this case, from the conversation.

Q. There was more conversation between you than what you have given here?

A. Perhaps in a general way.

Q. Didn't he ask you more questions than what you have here stated?

A. I think not.

Q. Didn't he ask you specifically about different portions of the townships?

A. Well, he asked me about where the seepage was that I discovered, and I told him that it was on —I think he had a map himself. I don't remember what portion of the section, but I remember the section, and he had a little map with that marked on it, and asked me if it was about that location, and he asked a question if I had found any seeps of that kind in 30-23.

Q. What did you tell him?

A. I told him that I had not.

Q. Do you recollect anything being said about hauling out stuff there?

A. Yes sir; there was something said about that, because we were laughing about the southeast. I told him most assuredly I didn't think there was anything where that material came out of, because there was five hundred tons of stuff that I hauled out of there, and that they would not have abandoned it if they didn't have a pretty good idea that it was barren territory.

Q. In that connection, did he not ask you about the western portion of the township?

A. I think he asked about it, but I think I told

him the same as I did you,—that I hadn't been in the western portion. [143]

Q. Didn't you tell him that it was non-mineral?

A. No sir.

Q. Did you tell him it was mineral?

A. No; I think he asked the question—he asked me something about whether I had hauled anything out of the western portion, and I told him I hadn't been there or in the Elk Hills at all only where I hauled those rigs from, for years.

Whereupon the further taking of testimony herein was adjourned until Saturday, April 20, 1912, at 10 o'clock A. M., at the same place.

W. E. OTT, a witness called and sworn on behalf of the plaintiff, testified as follows:

DIRECT EXAMINATION

I live in Los Angeles and have been engaged in the oil business about seventeen years. Most all of my experience has been in California, but I had some little experience in Texas. I have been in Indian Territory in Kansas looking over some of the oil fields there, but I never was engaged in the business. In California I worked in Los Angeles first, Summerland, Bakersfield, McKittrick, Santa Maria and Coalinga and in the Midway fields. I first came to McKittrick in April, 1901. The first time I went out there was on a pleasure jaunt or trip with Mr. J. B. Treadwell. On the second occasion I went out there at Mr. Treadwell's request and assumed charge of the S. P. Company's property at McKittrick, as

superintendent. My duties as superintendent did not call for actual drilling, but my duties were to oversee the work in general. The drilling I did—development work was under contract. It was a verbal one. I knew that the contract was with the Southern Pacific Railroad or the Southern Pacific because Mr. Treadwell told me so. Our south end lease I think was [**144**] on 29 or 20; I think probably it went around the line. Another lease we had on 40 acres was about midway at the north end. I don't remember what section it was on. I had done previous work under contracts for the same company. I was always informed that it was the Southern Pacific Railroad Company. My previous contracts were in the Kern River Fields on Section 3 and in Summerland in Santa Barbara county. My work brought me in contact with a man by the name of E. T. Dumble. He was introduced to me by Mr. Treadwell. Treadwell told me that Mr. Dumble was connected with the S. P. Company as their coal expert. During his first trip, Mr. Treadwell took Mr. Dumble around the field and on the second trip he did the same thing and Mr. Treadwell finally informed me that Mr. Dumble was to succeed him and advised me to resign, which I did. At that time Mr. Treadwell was with the Southern Pacific Railroad Company as their oil expert and superintendent of their oil fields. Mr. Dumble succeeded him, I think, in 1903. When I first went there we paid our men by checks on the Bank of Bakersfield. The checks were ordered on Mr. J. B. Treadwell. On an average we were producing less than two cars

a day from the south end lease and none from the north end. This oil was delivered to the Southern Pacific Railroad Company. I presume, by my bookkeeper, as he handled that end of the business. I turned it over to him. His name was C. A. Hiveley, who, I believe, is now the General Manager of the Kern Trading & Oil Company, a subsidiary of the Southern Pacific. I think the lease at the north end belonged to the railroad company. The other two leases that I was operating on were leased. Mr. Treadwell, in his activities as an oil expert of the Southern Pacific Railroad Company, was about there looking up lands for their mineral value. I found some indications at one time there and he gave me a gentle jacking up because I hadn't told him about it. These were some lands that he regarded [**145**] as mineral and they consisted of a 40 acre piece on one corner of the company's property, that is, property which they claimed to own or leased. Mr. Treadwell and C. A. Boynton, I believe, located some land in the Midway district. In my opinion, Mr. Treadwell was a competent oil expert and was a man of wide and varied experience and a man of very good judgment on land values. The only evidence that I have that the Southern Pacific Railroad Company, as Mr. Treadwell's principal, had confidence in his judgment as to the value of mineral lands in that locality, is the fact of his retaining his position and their having sent him to the Beaumont Fields in Texas and the Louisiana Fields, in their interest. There were certain lands in that district with J. B. Treadwell's

name on them and I asked Mr. Treadwell how that occurred and he said it was through Collis P. Huntington that his name was used on that land. Just why it was used he did not see proper to continue the conversation and he did not tell me any further and I did not ask him. I understood from the conversation that the lands were not his own, but belonged to the Railroad Company. The reason I thought that was that his name being on so many pieces of land around there, it looked peculiar to me, for I thought I knew Mr. Treadwell didn't own the property, and it naturally aroused more or less curiosity, and I asked Mr. Treadwell the question how it happened that his name was on that land. He said, at the instance or suggestion of Mr. Huntington—Collis—for the S. P. I knew Prof. Owen. He was a geologist in the employ of the Southern Pacific Railroad Company. I saw him prior to 1904 in McKittrick, and also in Kern City. The first time I met him was at the train in McKittrick. I was going away. Someone introduced us and he handed me a letter from Julius Kruttschnitt, Fourth Vice-President and General Manager of the Southern Pacific Railroad Company. The letter recommended Mr. Owen to me and asked me to extend to him all the courtesies of my **[146]** office, as the company's geologist. It was signed by Julius Kruttschnitt. This was in the latter part of 1902. I subsequently met Mr. Owen during the time I was in the employ of the Southern Pacific Railroad Company. He was a very quiet man and not given to making many remarks or giving out his business,

but it was evident on the face of it that he was looking for signs of oil bearing lands. He was riding out through the country and would be gone hours at a stretch. Where he went, I do not know. He never asked me to accompany him. The wagon and horses that he used belonged to the Southern Pacific and the man who drove him out was in the employ of that company. After the severance of my relations with the company, Mr. Dumble was there on a few occasions and he would go out in the company's rig with Prof. Owen. During my incumbency of the office I saw Mr. Owen go out in the country several times and afterwards, when I was a contractor, I saw him every little while. Before Prof. Owen's time, some of the officials of the Southern Pacific Railroad Company visited the fields. They were E. H. Harriman, Julius Kruttschnitt and D. Burkhalter, the division superintendent of the San Joaquin Division. I drove Mr. Harriman, Mr. Kruttschnitt and some other parties who were with them, around the Company's property. From Mr. Harriman's conversation with me, I learned it was a tour of inspection. In fact, I knew it was a tour of inspection, because I had been notified by J. B. Treadwell, who was my immediate superior, that Mr. Harriman and Mr. Kruttschnitt were coming and for me to extend them all courtesies. Mr. Kruttschnitt telegraphed me to meet them at Bakersfield with a special train. Mr. Treadwell told me in a letter that they would be there on a tour of inspection of the oil fields. I had a conversation with Mr. Harriman. He spoke of

the properties in a general way. He was anxious to see the wells and seemed to be fairly pleased with our little production. He made some remarks **[147]** however, that he thought it would be a good idea if we would drill our wells deeper, speaking of a certain well in another district that had been deepened and had made a better production. He was inquisitive as to the depth of the Reward well and wanted to know where the sands were and I told him. In driving around we passed the asphalt mine, which was a very rich one, and which at that time was under the control of R. H. Howk, and Mr. Harriman seemed to think pretty well of that rich asphaltum and asked me the question why it was we didn't own that property. By "We" he referred to the Southern Pacific Railroad Company. I have been in the Elk Hills territory four or five times. I always thought there was oil there. It was the general belief among oil men along McKittrick that the Elk Hills were oil territory. I heard it talked about all the time I was there; as early as 1901 and 1902. In fact there were rigs over in portions of that field at that time which had more or less oil. How much they had, I don't know, while I was superintendent there. Mr. Owen, in speaking to me of the territory in general from McKittrick up to Sunset, which is known now as the Midway District, said that it would be a great field.

CROSS-EXAMINATION OF W. E. OTT.

By Mr. Lewers:

Q. During how long a time were you acquainted with Mr. Owen?

A. Well, I was acquainted with Mr. Owen from the time he first came to McKittrick—when I first met him.

Q. The question is, during how long a time in months or years.

A. Well, I expect I knew the Professor for the biggest end [148] of the year, anyway.

Q. And how often was he there during that time?

A. He was simply there several times. I can't say how long.

Q. At any one time how long was he there?

A. He would generally come in and stay around McKittrick a few hours and then disappear.

Q. Disappear where?

A. That I couldn't say. He would generally drive out somewhere.

Q. Driving around the country?

A. A great deal.

Q. How long a period would he remain with McKittrick as his headquarters while he was making these trips around the country? Was he there a week, a month, or a couple of days?

A. I don't think he ever made any protracted stays there, to the best of my recollection I would see him—he would come in today and go out through the fields somewhere, and I might see him the next day and I might not, and I might see him the following day. Whether he came back to McKittrick that night or not I can't say. He may have come back the same night that he went out. He may have come back every

night, but I doubt it very much. I believe he did some camping out.

Q. Do you know in what direction he went when he drove out on any of these trips?

A. Well, sir, he went to the four cardinal points of the compass.

Q. That is, he went everywhere?

A. Yes sir.

Q. So far as your observation went he examined the country quite generally, did he not?

A. Yes sir; he was examining it off and on all the time he was there. **[149]**

Q. The lease that you were employed upon is near McKittrick, is it not?

A. One of them.

Q. Which one?

A. The South-end lease. The old lease.

Q. And the North-end lease is about three miles from that?

A. Some three or four miles; yes.

Q. And neither of those leases are in the Elk Hills, are they?

A. No; I don't think the Elk Hills are designated on that side of the valley at all.

Q. There is a valley between the Elk Hills and the two leases?

A. Yes sir; there is a little valley. There is a short range of hills connecting just beyond our lease, toward Sunset, that I think they connect up pretty close with the Elk Hills.

Q. Do you know whether they do or not?

A. I can't swear to it.

Q. You are not very familiar with that country in there?

A. Not in particular. My duties did not permit my chasing around very much.

Q. You simply drove through occasionally when you were going about some other business?

A. Yes sir.

Q. You didn't go and make an examination of the Elk Hills, did you?

A. No sir.

Q. And you never did make an examination of the Elk Hills?

A. No.

Q. Simply drove through?

A. Drove through.

Q. And your mind was attracted and directed to the business [150] that you had on hand more than to prospecting for oil?

A. Possibly it was and possibly it was not.

Q. Which was it?

A. I might have been thinking of business or something else. I didn't always drive around on business.

Q. You may have been doing one or the other, but I want to know which you were doing?

A. As a rule, when I drove through the Elk Hills I was going hunting.

Q. Hunting what?

A. Whatever I could find.

Q. What were you hunting to find?

A. Sometimes ducks, sometimes rabbits, coyotes and various kinds of game.

Q. You didn't expect to find ducks up in the Elk Hills?

A. I don't think I ever saw any ducks in the Elk Hills.

Q. When you were hunting ducks you were going over to the lake?

A. Yes sir; either to the lake or close by the lake.

Q. And when you were hunting quail where did you go?

A. Around the hills.

Q. Which hills?

A. Various hills. Principally towards Temblor in hunting quail.

Q. That is to the west or southwest from McKittrick?

A. Let's see. If I recollect rightly Temblor is north and a little west. I can't be positive of that, but I think it is.

Q. Where did you go when you were hunting for rabbits?

A. Sometimes on what we call the McKittrick Hills. Sometimes on further down by the railroad track, and various places.

Q. Did you ever go up into the Elk Hills hunting for rabbits? **[151]**

A. I never went there especially for rabbits. I have driven in there and shot them or shot at them from my buggy.

Q. You say you have driven through the Elk Hills. What portion of the Elk Hills was it that you shot rabbits from your buggy?

A. Generally down along the railroad track.

Q. Toward Buttonwillow?

A. Yes sir.

Q. There is a road leading down in that direction?

A. Yes sir.

Q. That would be the west end of the Elk Hills, would it not—near the railroad?

A. The west end? I am not sure about that.

Q. It was not the east end, was it?

A. I am not sure.

Q. Do you know where the east end of the Elk Hills is?

A. I am not sure that I do.

Q. Have you ever been there?

A. I don't know.

Q. Have you ever been in the west end of the Elk Hills?

A. I can't tell you that, either.

Q. You don't know whether you have either been in the west or east end of the Elk Hills?

A. I have been in the Elk Hills. Whether you term it east end or not or west end or north end or south end, I can't say.

Q. You don't know where you have been in the Elk Hills?

A. Not as to directions.

Q. Have you ever been on the north slope of the Elk Hills?

A. The north slope would be towards—yes, I have —it would be the northwest slope.

Q. Near the railroad?

A. Yes sir. [152]

Q. Now, can you recollect any other portion of the Elk Hills you were ever in?

A. Yes sir; I have been through the Elk Hills following the railroad track, and I went into the Elk Hills proper, a mile and a half beyond McKittrick, going north.

Q. A mile and a half beyond McKittrick? In which direction from McKittrick?

A. Going north.

Q. North from McKittrick?

A. Yes sir.

Q. And you considered that as a portion of the Elk Hills?

A. Yes sir.

O. I understand you to say that you have been in the Elk Hills near the railroad track and also north from McKittrick?

A. Yes sir.

Q. Anywhere else?

A. North and a little east. In this portion that I speak of, north and a little east, I was hunting.

Q. The question is were you in any other portion of the Elk Hills?

A. I have been since that.

Q. Since when?

A. Since I left the employ of the Southern Pacific Railroad Company.

Q. When was that?

A. 1903.

Q. Well, how long since? Immediately or several years?

A. Well, I was in there about a year ago.

Q. And when before that?

A. I was there before that, yes.

Q. How long before?

A. A few months before that. It might have been five or [153] six or seven months.

Q. That constitutes the number of times and places you have been in the Elk Hills generally, does it?

A. Yes; I may have been in the Elk Hills to some extent, but I can't call it to mind.

Q. You won't pretend to say that you are familiar with the Elk Hills?

A. Not particularly, no.

Q. Have you been in Township 30 South, Range 23 East?

A. I can't tell you.

Q. You say that Mr. Dumble was down there how often while you were employed?

A. I think Mr. Dumble was there probably four times when I was there.

Q. Did he make any examination of the country as Mr. Owen did?

A. He and the Professor were out together.

Q. Was he ever out by himself when Mr. Owen was not present that you know of?

A. I don't think that he ever was. If he was, it was not to my knowledge.

Q. And you say your recollection is that Mr. Owen made a very extensive examination of the territory in all directions from McKittrick?

A. Yes sir.

Q. Down on the Buena Vista Hills?

A. He went everywhere. Where he went, I don't know. I can give no definite points.

Q. And you say that he referred to certain territory as being oil territory?

A. Yes sir.

Q. That was where? **[154]**

A. The general district lying between McKittrick and Sunset.

Q. That is, to the southeast from McKittrick?

A. Yes sir.

Q. Down along that range of hills?

A. I inferred from his remarks that covered the flats and hills in through there.

Q. Between McKittrick and Sunset?

A. Yes sir.

Q. And you never heard him say that the Elk Hills were good oil territory?

A. Only in a general way, of that whole country.

Q. Did you not testify on the direct examination that you never heard Mr. Owen or Mr. Dumble either say that the Elk Hills were good oil territory?

A. I did.

Q. And that is the fact?

A. Yes sir. And in modification I say only in a general way of the country from the McKittrick district to the Sunset district—if that includes any of the Elk Hills, then he did; if it does not, he didn't. That is all.

Q. Does the country in a general way from Mc-

Kittrick to Sunset district include any portion of the Elk Hills?

A. I am not sure but what it does. I am not positive of that.

Q. Is it not a fact that the Elk Hills lie a considerable number of miles north of that range of hills from McKittrick to Sunset?

A. I can't tell you.

Q. You are not familiar with the country enough to tell?

A. No sir.

Q. How long were you in McKittrick? [155]

A. From 1901 to 1903.

Q. And you don't know whether the Elk Hills lie to the north of the range of Hills leading from McKittrick to Sunset?

A. No sir.

Q. Do you know where the Elk Hills are?

A. In a general way. I have been telling what were called the Elk Hills in a general way. That is all hearsay testimony with me as to where they are and what they are.

Q. You say there was a general belief amongst oil men that the Elk Hills were oil territory. Is that correct?

A. Yes sir.

Q. And when did that belief exsist?

A. All the time I was out in that country and up to the present time.

Q. Will you kindly mention any oil man that told you that the Elk Hills were oil territory?

A. Oh, I have heard a number of them. I think Mr. Wible made a remark of that kind.

Q. When?

A. Some little time ago. I didn't know Mr. Wible till I was in McKittrick quite a little while.

Q. How many years ago did he make that remark?

A. Possibly in the latter part of 1901 or as early as 1902.

Q. Where was that remark made?

A. It may have been in Bakersfield. I think probably it was.

Q. What was the remark he made?

A. Just in a general way, speaking of the Elk Hills, like oil men will gather around and talk.

Q. What did he say?

A. I told you what he said. **[156]**

Q. Not yet. Will you kindly give me as near as you can what he said?

A. He was speaking of the Elk Hills in a general way and he made a remark that it was good territory. I can't say that those were the exact words, but that was about the way it was.

Q. Did he tell you any oil had been discovered there?

A. I don't know whether he did or not.

Q. Did he at any time prior to January 1st, 1905, tell you that any oil had been found in the Elk Hills?

A. Yes—pardon me. Will you repeat the question? (The reporter reads the question.) I don't think he did.

Q. Did he tell you at any time prior to January 1st, 1905, that he knew of oil in the Elk Hills?

A. I don't think he did.

Q. Did any other oil man tell you so prior to January 1st, 1905?

A. That is making a pretty hard question for me to answer, because I have heard it talked so generally that I can't call to mind who the dickens it was, because, as I say, it was generally conceded.

Q. I know you said that.

A. And Mr. Treadwell thought it was good territory. Let me ask a question. There is a range of hills immediately across the valley from McKittrick to the north and east. I believe that is a continuation of the Elk Hills.

Q. On which side of the railroad?

A. On the north side of the railroad. The north side where it goes into the hills, and it would be on the east side of Olig Station.

Q. What about it?

A. Mr. Treadwell and I went through those hills and he found some oil sands over there. [157]

Q. When was that?

A. I found those oil sands there in 1902.

Q. Whereabouts?

A. Probably a mile or a mile and a half north of McKittrick, and probably a mile east. Somewhere along there. It is not very far from what is known as the Sea Breeze Oil Company.

Q. And you considered that in the Elk Hills?

A. In that portion of them I did. If that is a portion of them, I did; if it is not, I didn't.

Q. What did he say?

A. He thought it was a good proposition.

Q. Did he say he knew there was oil there?

A. He thought so.

Q. Did he say he knew there was?

A. That is something nobody in God Almighty's world can tell.

Q. Can you tell me any other oil man prior to January 1st, 1905, who told you that he thought that was good oil territory?

A. J. B. Treadwell, and lots of men around there who were oil men, but men of no prominence. Several of my men made such remarks, and several others who were drillers and tooldressers who had more or less connection with the oil business.

Q. But, Mr. Ott, you have made the statement that it was generally conceded by oil men to be good oil territory?

A. Yes sir.

Q. I want you to give me the names of any individual you can think of who ever made any remark to that effect prior to January 1st, 1905. I don't want generalities, but I want specific names.

A. That is a question that I had not thought of. If I [158] had thought of it I would have sat down and studied it over, because several have made remarks, and it was generally known. H. P. Bender who is now deceased, and who was at that time secretary and treasurer of several oil companies, talked a good deal about those hills.

Q. Was he an experienced oil man?

A. No, but he was in the oil business.

Q. Did he know anything about oil?

A. He knew oil when he saw it.

Q. I know that myself.

A. Then you are an oil man.

Q. I want to know if you can give me the name of any man who was a practical oil man, familiar with the way in which oil occurs and is developed, and not merely connected with some oil company —an experienced oil prospector?

A. I heard Charlie Youle.

Q. When and Where?

A. Around McKittrick, when I first went there. I don't know Mr. Youle hardly to speak to him, but I heard him make the remark. He had been doing some work over there, I believe—both he and Mr. Briscoe.

Q. What did he say?

A. That it was good oil territory.

Q. Did he say he knew there was oil in there?

A. I don't know whether they did at that time or not, but I know there was oil there.

Q. You know there is there?

A. Yes sir.

Q. Did you know in 1901 there was oil there?

A. Shortly after that I did.

Q. When?

A. Along in 1902, I believe. [159]

Q. Where did you know it was?

A. It was taken from the ground.

Q. Where?

A. Through the Sea Breeze well.

Q. In the Elk Hills?

A. If that is the Elk Hills, yes sir.

Q. What direction and distance from McKittrick?

A. Probably a mile and a half north and a little east. I think that is the course.

Q. You don't know the township?

A. No. I want a map. I want to give those directions to this gentleman as correct as I can. I think the other day he got some that are not correct.

Q. That is, he got some that didn't jibe with the map?

A. Because of the confusion more or less of the witness on the stand.

Q. Did you make any map that you are now calling for?

A. No sir.

Q. Have you seen any that you are calling for?

A. No.

Q. Did you see any map?

A. There was a map hung on the wall. Whether that is the map I can't say.

Q. When did they show it to you?

A. It was last Monday. The map looks something like this, but whether it was I don't know.

Q. Just remain seated, Mr. Ott.

A. All right. The course and distance I am going to give according to the map.

Q. Have you any recollection where McKittrick is without reference to the map?

A. It is in California. [160]

Q. Is that the nearest you can place it?

A. No; I can go over there and walk there in the dark from here.

Q. And could you, being in McKittrick,—you are able while there to go to different properties and know what direction they are from the town, are you not?

A. Yes sir.

Q. And know in a general way as any man living in the community does, approximately how far they are?

A. Approximately.

Q. You are familiar with the country so that you say you could go about there in the dark and not get lost?

A. Yes sir.

Q. Then, so far as approximately stating direction and distance from the town of McKittrick of the various properties that you have visited, you can do so without reference to a map?

A. If I am there, yes.

Q. And not being there, you can form a picture in your own mind generally of what direction different places are from McKittrick that are near there?

A. Not correctly.

Q. Are you familiar with the points of the compass?

A. I can't always tell where it is.

Q. You know where north is?

A. Sometimes, and sometimes I don't.

Q. When you are in your normal state you know where north is?

A. I am always normal.

Q. When you are in a normal state you always know where north is?

A. Not directly.

Q. When you were in McKittrick did you have any doubt [161] where north was?

A. Not particularly.

Q. And likewise you were not in any difficulty as to what was east, west or south, were you?

A. During the heat of the day I am peculiarly affected. I can't tell the points of the compass, if I have not something to go by. I am not like some old frontiersmen who have been out on the plains all their lives and immediately at 12 o'clock can tell you where due north is or south. I can't do those things.

Q. When it struck noon at McKittrick if you wanted to know which was north you would have to look at the compass?

A. Unless I was outside and could see some object that I was familiar with.

Q. So that without stopping to figure you could tell instantly while in McKittrick which was north?

A. Oh, in a general way.

Q. And the same with the other points of the compass?

A. Certainly; if I could find north I could find south.

Q. Where was it from McKittrick as to the direction and distance that Mr. Youle told you about there being oil indications or discoveries?

A. I will show it to you on the map.

Q. I wish you would answer me without reference to the map.

A. No sir.

Q. Can't you do it?

A. No sir.

Q. Is it necessary for you to refer to the map?

A. It is necessary, yes sir.

Q. Why?

A. Because I can't answer you positively and correctly to my satisfaction. **[162]**

Q. Now, I am asking you to give me generally the direction from McKittrick that the place was that Mr. Youle referred to. I don't care if you vary a few points of the compass.

A. Well, sir, if I mistake not, I have certain rights there that I am going to ask for. If I have the right to refuse to answer that question without a map, I will do it; if I have not—

Q. I don't think you have. Do you claim any privileges?

A. I do.

Q. Would it tend to incriminate you?

A. No sir; I claim the privilege to look at the map.

Q. Would the answer to the question expose you to humiliation and disgrace?

A. I can't see why it should. I would be giving my answer to the best of my knowledge and belief.

Q. And is the direction from McKittrick where Mr. Youle informed you there was oil any informa-

tion that came to you in the way of a privileged communication, a communication to you as confessor or attorney?

A. I am not guilty of any of those charges.

Q. Then you will kindly answer my question.

Mr. Mills—I want to submit that the witness has answered to the best of his information and belief.

A. I want to go to this point, if you please. While I am in McKittrick, I can point out to you any point there is there by taking certain locations. To be away from there, I might give you a wrong direction. And I was here the other day and saw a witness tangled up till he couldn't see straight on that very same point, and I am asking for my rights to straighten that out on this map before I give any positive evidence.

Q. By Mr. Lewers—That is all very well, but I am anxious to have you testify and not the map. So, will you kindly **[163]** tell me in a general way the direction from the town of McKittrick this oil was discovered by Mr. Youle?

A. In a general way it was northerly.

Q. Was it east of north or west of north?

A. It might have been a little one way or the other, and it might have been due north.

Q. How far was it from McKittrick, approxiately?

A. I expect a couple of miles; a mile and a half or two miles.

Q. And when was that? You don't have to consult a calendar for that?

A. Well, I might. Have you a callendar handy?

Q. We have none for 1902 or 1901 that I am aware of, so you will have to depend on your recollection.

A. That was in 1902 sometime.

Q. What did he tell you?

A. I think that was early in 1902 or the latter part of 1901.

Q. What did he tell you?

A. He simply made the general remark that there was oil there at that point.

Q. Did he tell you on that occasion or any other occasion prior to January 1st, 1905, that he knew of oil anywhere else in the Elk Hills? Not that he believed there might be, but that he knew of it?

A. I don't know that he did.

Q. You have no recollection of his telling you anything of the kind?

A. No sir.

Q. Now, Mr. Ott, you have given me the names of three persons. Can you give me the name of any other competent oil man? **[164]**

A. A Mr. Briscoe thought there was oil there.

Q. When?

A. Along in the latter part of 1901, I think, or early part of 1902.

Q. Where did he say it was?

A. The same place.

Q. The same place Mr. Youle referred to?

A. Yes sir.

Q. Did he say there was oil anywhere else in the Elk Hills that he knew existed?

A. I don't know that he did.

Q. You have no recollection that he did so?

A. No sir.

Q. Can you give me the name of any competent oil man who told you prior to January 1st, 1905, that he knew of oil existing in other portions of the Elk Hills lying to the east of the point you have indicated Mr. Youle pointed out?

A. You mean actual oil or indications?

Q. Oil.

A. I can't recall any conversation regarding it up to that time.

Q. Then when you answered that it was the general belief of the oil men that that was oil territory you were referring to the territory near the point where Mr. Youle had pointed out or told you those oil indications were, were you not?

A. Not particularly there.

Q. What were you referring to?

A. That whole range of hills clear down to Sunset.

Q. From McKittrick to Sunset?

A. Yes sir.

Q. Were you referring to the range of hills to the north known as the Elk Hills?[165]

A. Well, they would be on the east side from our lease at South-end, and they ranged on down toward the Sunset.

Q. That is not the question. I understand you to say that oil men during that time regarded the territory from McKittrick down towards Sunset as being oil territory generally. Is that correct?

A. Yes sir.

Q. Did they tell you, any of them,—referring to oil men, now—that the Elk Hills lying to the north and across the Valley from the range of hills leading from McKittrick to Sunset was oil territory?

A. Lying to the north and across the valley? From where?

Q. From McKittrick?

A. I can't recall any hills lying to the north of McKittrick. The points of the compass as I have them in my mind, it would be northeast of those hills.

Q. That is, northeast from the McKittrick hills?

A. From McKittrick over to these hills.

Q. You are probably right.

A. Possibly right.

Q. I have only been there once. My knowledge of the compass perhaps is mixed. Did they tell you then that this range of hills a little to the east of north of McKittrick, known as the Elk Hills, was oil territory?

A. Yes sir; I think I said awhile ago to you that they found this oil in the Sea Breeze.

Q. But outside of that particular place at Sea Breeze did they tell you that any portion of the Elk Hills was oil territory?

A. I will have to ask you a question before I answer that. Was the Belgian Oil Company considered in the Elk Hills?

Q. I can't answer. I wish you would answer my question. **[166]**

A. If they were, yes. There was some oil there. The Belgian was in 1901. I happen to know that.

Q. Were you at their property?

A. Yes sir.

Q. How far from McKittrick is it?

A. Very close by.

Q. How far?

A. Two miles and a half or three miles.

Q. In what direction?

A. I think something like southeast.

Q. Southeast from McKittrick?

A. Yes sir; the Belgian Oil Company put in a pipe-line from there.

Q. Would property two and a half or three or four miles southeast from McKittrick be in the range of hills lying across the valley to the northeast from McKittrick?

A. I think so. I think it would be a continuation of the same range of hills.

Q. Now, Mr. Ott, you say that you were employed from the time when you first went in there as superintendent. Was it of the S. P. lease?

A. The S. P. Railroad Company's property I was told.

Q. What were you known as?

A. Superintendent.

Q. And as such you had charge of the operations conducted on the lease, did you?

A. Yes sir.

Q. And that lease was situated close to McKittrick?

A. Yes sir.

Q. And not in the Elk Hills?

A. That is what we call the McKittrick Hills according to my understanding. [167]

Q. Quite a number of miles from the Elk Hills, was it not?

A. Well, no.

Q. How far?

A. I don't think it was over a couple of miles, right across the valley. In fact, I think along around towards the asphalt mines there they connect up with the range of hills there. Where they separated I can't tell you.

Q. Do you know in what section and township this S. P. lease was?

A. It was in—(referring to memorandum)—it was in Township 30-22, Section 20; and I think 29. I can't be sure about that.

Q. You say that lease was leased from the Buena Vista Oil Company. Is that correct?

A. That was always my understanding of it, yes sir.

Q. Who owned the ground?

A. The Buena Vista Oil Company, as far as I know.

Q. Do you know who was president of the Buena Vista Oil Company or in charge at that time?

A. I met the gentleman, but what his name is, I don't know. He was connected, I understand, with a clearing-house in San Francisco. He came there occasionally. I can't recall his name.

Q. And that was known as the S. P. lease or the S. P. Company's lease?

A. It was generally known as the S. P. Railroad Company.

Q. That is, it was referred to in your correspondence as the S. P. Railroad Company's lease, was it?

A. Yes sir.

Q. And you say that Mr. Harriman came there on one occasion?

A. Yes sir.

Q. And Mr. Harriman held what position? [168]

A. I don't know. It is almost too big for me to name. I think he was president of all the S. P. lines and their connections.

Q. Do you know?

A. Mr. Harriman never told me so individually.

Q. Do you know?

A. As well as I could by reading papers and hearing general conversation as to employees of the railroad company and officers of the company.

Q. Then you had no information except what you picked up by newspapers and general gossip?

A. You can term it that way if you wish.

Q. That is the way it was?

A. You can term it that way.

Q. I don't care to term it.

A. The gossip portion of it, I think it was done in a business way.

Q. While you were superintendent did you ever have any communication with any of the officers of the railroad company?

A. I did.

Q. Did you have any stationery for use in connection with your business?

A. I did.

Q. Have you any of that now?

A. I have.

Q. Have you any of it with you?

A. Not of the S. P., no.

Q. How was that stationery marked? What was the name of the company printed at the head of it and on the envelope?

A. If I hadn't heard the testimony here the other day I would have said S. P. Railroad Company, but I don't know whether it was or not [169]

Q. Having heard that testimony, are you inclined to modify your former answer?

A. I might modify the form, but not my impression.

Q. You have already testified very positively that this lease was carried on by the Southern Pacific Railroad Company. What I want to know is how was the stationery marked, Southern Pacific Railroad Company or Southern Pacific Company?

A. As I stated awhile ago, having seen the stationery, I can't say positively. But my reasons for thinking it was the S. P. Railroad Company was that J. B. Treadwell told me so.

Q. Are you sure he didn't tell you it was the Southern Pacific Company?

A. No sir; he spoke of it as the S. P. Company and

he spoke of it as the Southern Pacific Railroad Company.

Q. I show you Exhibit J and ask you to examine that and state whether or not that envelope is anything like the one you had?

A. Yes sir; I think it is.

Q. Is it the same kind?

A. Yes sir.

Q. That is "Southern Pacific Company?"

A. Yes sir; "Southern Pacific Company, Railroad Business."

Q. I might also ask you to examine the enclosure. Did you ever see anything like that letterhead?

A. I think I have.

Q. That says "Southern Pacific Company?"

A. Yes sir.

Q. That is the kind you had?

A. I think it is identical. I can't see any difference in it.

Q. And it is a fact that the lease was operated by the Southern Pacific Company for the purpose of getting oil to use[170] on the road?

A. You say it is a fact?

Q. Isn't that the fact?

A. I don't care to say that it is the Southern Pacific Company. I was told that it was the Southern Pacific Railroad Company by my immediate superior, no matter what the staionery might read.

Q. The question is: isn't it a fact that the lease was operated for the purpose of getting oil to use

as fuel on engines of the road of the Southern Pacific Company?

A. Of the Southern Pacific Railroad Company, yes sir.

Q. Why do you say "The Southern Pacific Railroad Company?"

A. Because they are operating the Southern Pacific railroad.

Q. Was the Southern Pacific Railroad Company operating any road at all in 1900 or any time while you were employed over there?

A. Were they operating any road?

Q. Yes.

A. They most undoubtedly were.

Q. How do you know they were?

A. I have ridden on their trains.

Q. Did you ever ride on a train operated by the Southern Pacific Railroad Company in your life?

A. I think I have, many a time.

Q. When did you last ride on one operated by the Southern Pacific Railroad Company?

A. On the night of the 14th of this month and the morning of the 15th.

Q. Between what points?

A. Between Dome, Arizona, and Los Angeles.

Q. And you are positive that that was operated by the [171] Southern Pacific Railroad Company?

A. It wasn't the Southern Pacific Fertilizing Company, I know.

Q. And it wasn't the Southern Pacific Company?

A. It was the railroad company.

Q. It was not the Southern Pacific Company?

A. It was the Southern Pacific Railroad Company.

Q. You are positive of that?

A. Certainly I am.

Q. Have you in your possession a return trip ticket?

A. No sir.

Q. Have you any ticket of any kind in your possession?

A. No sir.

Q. From what did you draw the conclusion that on this last trip you made in this month you were riding on a train operated by the Southern Pacific Railroad Company as distinguished from the Southern Pacific Company?

A. Because it is a company that was operating a railroad and nothing else.

Q. How do you know that?

A. It doesn't operate by itself. I know that.

Q. The question is how do you know that it is not operated by the Southern Pacific Company?

A. It may be operated by the Southern Pacific Company, but it is the Southern Pacific Railroad Company. It is simply "McCartey come in," or "come in McCartey."

Q. Have you ever taken a trip across the state of California and Nevada as far as Ogden or any portion of that distance?

A. Nevada? No sir.

Q. Have you ever taken a trip from here to Portland?

A. No sir [172]

A. No sir.

Q. Do you know what road is operating across the State of Nevada?

A. No, I do not. I presume probably the Union Pacific.

Q. Don't you know the Union Pacific line ends at Ogden?

A. No, I do not.

Q. Did you ever hear of the Central Pacific Railroad?

A. I heard of it, yes sir.

Q. Where did its line extend?

Mr. Mills—Objected to as wholly irrelevant.

A. I can't tell you.

Q. By Mr. Lewers—Have you ever heard whether it had any line at all?

Mr. Mills—Objected to for the same reason.

A. I think so. There is the Northern Pacific, Union Pacific, Missouri Pacific, and I think there is a Central Pacific.

Q. By Mr. Lewers—Where is the Central Pacific's line?

A. I can't tell you.

Q. Did you ever know?

A. I may have.

Q. Do you know where any portion of it is?

A. I can't tell you.

Q. What line runs through Sacramento?

Mr. Mills—Objected to as irrelevant.

A. I can't tell you.

Q. By Mr. Lewers—When were you in Sacramento last?

A. It was before I went to McKittrick a short time to work for the company.

Q. Over what line did you ride in leaving Sacramento?

Mr. Mills—Objected to as irrelevant.

A. I went from Bakersfield on the Southern Pacific on a pass from Julius Kruttschnitt to nearly the most northern [173] boundary of California—Siskiyou County—and return the same way.

Q. How did the pass read? What was on it?

A. It was telegraphic.

Q. What company was it given by?

A. I suppose it was given by the Southern Pacific Railroad Company.

Q. I don't care what you suppose.

A. I care what I suppose, but I am not positive.

Q. I don't want any supposition, but what was the fact?

A. You will have to suppose this, because I don't know. I supposed it was the Southern Pacific Railroad Company.

Q. As a matter of fact, you don't know?

A. Not positively.

Q. Might it not have been the Southern Pacific Company?

A. It might have been the Salt Lake.

Q. Might it not have been the Southern Pacific Company?

A. It might have been and it might have been the Salt Lake.

Q. Was it the Salt Lake?

A. Not that I know of.

Q. And when you answered that it might be the Salt Lake, you knew perfectly well it was not?

A. You are trying to corner me down that it was on the Southern Pacific Company, and I think it was the Southern Pacific Railroad Company.

Q. Will you read the question? (The reporter reads the question.)

A. How could I tell? They may be controlling the Salt Lake and giving passes. I don't know.

Q. When you answered that it might be the Salt Lake Company, you knew perfectly well that the pass you received was not of the Salt Lake Company? [174]

Mr. Mills—We object to that as wholly irrelevant, incompetent and not connected with any of the issues in this case, any more than an inquiry about a railroad running into Jerusalem.

Mr. Lewers—That may be where the other oil seat is.

Mr. Mills—And I will tell you that if there is any oil there, they will get it.

A. I don't know what company it was.

Q. By Mr. Lewers—you knew it was not the Salt Lake Company that gave you that pass?

A. I don't know whether it was the Salt Lake

Company or the Union Pacific or the Chicago & Alton.

Q. You don't know that it was the Southern Pacific Railroad Company?

A. Julius Kruttschnitt telegraphed the pass to the agent and it was simply a telegraphic pass. What it was, I don't know.

Q. Wasn't it on a railroad message blank?

A. It probably was.

Q. How was that marked?

A. I don't know.

Q. Salt Lake road?

A. I don't know. It might have been. I don't know.

Q. As a matter of fact you don't know what company is operating the road from Bakersfield to Sacramento?

A. I went up in the interest of the Southern Pacific Railroad Company.

Q. I don't care whether you went in the interest of something else. I want to know if you know what company operates that road?

A. The Southern Pacific Railroad Company.

Q. You know that? [175]

A. That always was my impression of it.

Q. And was that telegraph blank marked "Southern Pacific Railroad Company?"

A. Since I see a letterhead, I don't know whether it was or not. If I had not seen that, I would have thought it was.

Q. Did you report as superintendent to Mr. Jerome Madden?

A. I never met the gentleman.

Q. Did you ever have any communication from him?

A. I never did.

Q. Did you ever report as superintendent to C. W. Eberlein?

A. I never did.

Q. Or did you have any communications from him?

A. I never did.

Q. When you come down to it, you don't know whether it was the Southern Pacific Company or the Southern Pacific Railroad Company, do you?

A. I was told by my superior, who was supposed to know, that it was the Southern Pacific Railroad Company; that was when I was employed there, during various conversations.

Q. You say Mr. Owen gave you a letter from Mr. Kruttschnitt. Is that correct?

A. Yes sir.

Q. And you don't know where that letter is now?

A. No sir. I think I handed the letter back to Mr. Owen to hand to my bookkeeper.

Q. What was the heading of that letter?

A. I can't say.

Q. Was it the Southern Pacific Company or Southern Pacific Railroad Company?

A. I can't say. I suppose coming from Mr. Kruttschnitt, it would be from his office.

Q. Which company? [176]

A. The Southern Pacific Railroad Company.

Q. Has Mr. Kruttschnitt ever had any official connection to your knowledge with the Southern Pacific Railroad Company?

A. I think so.

Q. Do you know that he has, as distinguished from the Southern Pacific Company?

A. I don't know. I don't know whether there was one in existence.

Q. Although you admit that the letterhead which you had in your possession was probably the same as the Exhibit J?

A. Yes sir.

Q. Never directed your attention that there was such a company as the Southern Pacific Company?

A. No; I didn't give it a thought.

Q. And I don't suppose that you ever observed the inscription upon the engines or upon the cars running upon the lines into McKittrick to see whether that was Southern Pacific Company or Southern Pacific Railroad Company?

A. I probably noticed it, but I didn't give it any thought. I have seen a great many of the Sunset Route, Southern Pacific Railroad Company.

Q. Did you ever see any other mark?

A. I don't believe that I ever saw one of them anything outside of "S. P." on the locomotives, and I think it is "S. P." on the oil cars. I am not sure.

Q. It is "S. P. Co.", is it not?

A. I don't know whether "Co." is there or not. I have seen thousands of cars, but I can't tell you.

Q. Hasn't that attracted your attention,—that they left off the "Railroad Company"?

A. No sir. It is the Southern Pacific Railroad Company in my mind the same as anybody else. [177]

Q. Then that is the real thing in your mind, that you never noticed any such distinction between "Southern Pacific Company" and "Southern Pacific Railroad Company"?

Mr. Mills—How long will you continue to ask this line of questions? The questions for the last half hour have been wholly irrelevant. I don't think you should encumber the record with twenty or thirty pages of it.

A. I never noticed that there was any distinction.

Q. By Mr. Lewers—You are not aware that there ever was such a distinction?

A. No, I never was aware.

Q. And it might have been the Southern Pacific Company that you referred to?

A. I went to work and was authorized by J. B. Treadwell to go to work for the Southern Pacific Railroad Company. That is who I was employed by, to work for the Southern Pacific Railroad Company. I went to McKittrick and went to work for this Company and they paid me.

Q. You are paid by the Southern Pacific Railroad Company?

A. Paid by the company Mr. Treadwell employed me for.

Q. Are you paid by the Southern Pacific Company or by the Southern Pacific Railroad Company?

A. It was the railroad company.

Q. Have you any literature in your possession showing that to be the fact?

A. No.

Q. Might it not have been the Southern Pacific Company that paid you?

A. They might have termed themselves that way on their literature.

Q. Might not they have termed themselves so on their vouchers? **[178]**

A. I can't say. But my vouchers, if I remember correctly, were all made out against the S. P. Railroad Company for the drilling. I made up my own vouchers.

Q. What did you do with them?

A. They were made out in triplicate, I believe, and sent to the Kern River field to the head office, and from there they went through the regular routine at Frisco, and my money was sent to me. I very seldom drew the vouchers. I generally gave the bank at Bakersfield authority to handle it.

Q. And you are very positive that those were in the name of the Southern Pacific Railroad Company?

A. I am pretty sure that I made out my own vouchers against the Southern Pacific Railroad Company.

Q. You are just as positive of that as any other testimony that you have given?

A. I think so.

Mr. Lewis—That is all. **[179]**

I. N. CHAPMAN, a witness called and sworn on behalf of the plaintiff, testified as follows:

DIRECT EXAMINATION

I am seventy-four years of age and am a Civil Engineer. I commenced to take contracts for government surveying along in the sixties, I think about sixty-seven. I have continuously followed that business since that date, not always in the government's employ but I have had many government contracts for public survey. At present I am City Engineer of Alameda, California. I can't tell how many government contracts I have had for the survey of government lands but I was in that business many years taking contracts one or two each year. Sometimes they would last for two years or more. I have often been employed to go and examine tracts of land and to classify them in reference to soil and valuations. During my work as a surveyor I have classified many acres of land, amongst which were mineral lands. I have surveyed land in different districts of California for mineral lands or supposed to be mineral lands. My work extended into the County of Tuolumme on the mother lode. I have done work in Eldorado County on the mineral belts. I have also examined mineral lands in Placer County. I have done no special work in surveying oil lands but I have surveyed a good deal of land around where there was supposed to be oil lands and I recognized it as such as it had the proper formation for oil. I did some work over in the oil region in Santa Barbara County. I surveyed Sisquoc lands on the Sisquoc River about twelve miles along the river and about six miles wide. I regarded it as oil formation, sandstone and shale

and mineral seepages all over the land. At that time the country had not been developed for oil. My employer owned the ranch and I told him it was particularly adapted to oil rather than stock raising. Since that time that land has been developed and they have some **[180]** very fine flowing wells over in that country. I have been in the Bakersfield and McKittrick country and the Sunset several times. In informing myself of the mineral classifications of lands I made a study of formations. I have studied geology. I surveyed the East boundary of Township 30 South, Range 23 East. That was the West boundary of 30 South, 24 East. I think I surveyed in Range 24 and in doing that work I fixed the boundary limits, the Eastern boundary limits of Township 30 South, Range 23 East. This work was done about 1893. When I made that survey, as I remember it, the character of the ground was plainly a sandstone base and it was pretty rough as to topography and very gulchy. There was not much vegetation on it of any kind and no timber. It was a sandstone and shale formation as I remember it. I regard it, from what I have known before and since that, that it was very probably oil land. That was true of the hills there known as the Elk Hills and clear over into the Carisa plains. It is all the right formation to find oil. At the time I made that survey in 1893 I regarded the Elk Hills, and by that I mean the group of hills in which I completed that survey, as oil lands. I did not go any further West at that time but subsequently I went over there to make an examination of

the lands in the Carisa plains. The Elk Hills were rolling hills and pretty well chopped up and did not seem to be very valuable for agriculture. They were dry and parched at the time I was there. I think their elevation was about seven or eight hundred feet. I would certainly think that that country there was more valuable for oil than anything else.

CROSS EXAMINATION
OF
I. N. CHAPMAN.

There wasn't any vegetation there when I was there **[181]** for sheep or anything else. I didn't remember seeing any bunch grass. I think there is grass in there in the spring of the year. There are times when there is some vegetation towards the summit of the mountain next to Carisa. I didn't see any break in the Elk Hills but the proper formation for oil is there. I am pretty certain I did not report the territory on the East side of Township 30 South, Range 23 East, as oil land. I spoke to the United States Surveyor General about the probability of oil and he advised me not to mention it because it was a difficult matter to prove. When I went down and made the survey on the East line of the township it impressed me as ground that probably might contain oil. I talked it over with my men there at that time and told them that I believed there would be oil discovered in that country and that there would be a great boom in oil. I made no estimate or sufficient examination of the territory to determine the probable depth of that oil.

I talked about it being probably a formation to look for oil in but as to what depth it would be I know nothing about it. I thought it was a place that would bear investigation. I knew it was an oil formation from experience I had had in other places. It is a kind of gamble when you look for mineral anywhere because you have to find it. From such indications as I saw there a man would not be justified in denying that there was oil there because a man would not bore where the surface indications were not there. He would be governed by surface indications. I couldn't say that a man would be justified in saying that from what he observed as to surface indications that the land contained oil in paying quantities.

RE-DIRECT EXAMINATION

OF

I. N. CHAPMAN. [182]

By Mr. Mills:

Q. Would he be justified upon such indications to invest money with the reasonable expectation of getting oil?

A. Certainly he would. He would be justified in making investigations, but he would not be justified in making investigations for oil where he did not have the indications.

Mr. Hills—That is all.

SAMUEL P. WIBLE, a witness called and sworn on behalf of the plaintiff, testified as follows:

DIRECT EXAMINATION

I am forty-nine years of age and reside at Bakers-

field, California. I am in the Real Estate Business in Kern County, California. My brother was president of the Bank of Bakersfield and while he was away in Alaska I tended to his business for him. I have lived in Kern County eighteen years and have dealt quite extensively in lands there. I know what is called the Elk Hills just East of McKittrick. I first saw those hills in the Fall of 1893. I had a brother on Miller and Lux's ranch which lies along the canal North of Elk Hills. He was there in 1873. Buena Vista Lake butts right up against the Easterly end of Elk Hills. I became interested in the oil business in Kern County about the year 1898 or 1899. I drilled wells East of the Kern River field. Later on I went to McKittrick and Temblor and drilled out land. We drilled a number of wells in the McKittrick district West of the town. I had charge of the drilling of seven or eight wells there. There was quite a boom there in 1900 and 1901. The boom included the country from the Temblor to Sunset. The land was located as far East as the Buena Vista Lake but there was no development attempted much. During that excitement land was located in Elk Hills. I think the whole of the Elk Hills was located **[183]** at that time. The Buena Vista hills lying South of the Elk Hills were also located. I did not go into the Elk Hills at that time to examine the territory but I went there sometime in the year 1902. I went there to examine them and investigate their oil possibilities. I heard that there was a seepage there but I didn't know just where it was but I saw it afterwards. It was on Sec-

tion 32, Township 30 South, Range 24 East. It is not what you call an oil seepage; it is what you would call a brea bed. Evidently oil or gas had been in it at one time and dried out at the present time. I was examining the land for myself. At that time I didn't have any particular associates. After that the gentlemen who went in with me were: Charles Haperkern, H. T. Tupman, J. Owen, T. S. Klipstein, W. E. Richardson and E. W. McCutcheon. In 1903 or 4 I went through those hills with Mr. Owen. We drove around through the Easterly part of the Elk Hills. He was going to show me the outcrop but we were not able to find it at that time. He said that he would come into the outcrop from the South side of the hills and when he went in from the North side he was not able to locate it. He had been in there before he took me in. We spent a couple of hours looking for this oil showing. Mr. Owen was a geologist for the Southern Pacific Railroad. He informed me that he was and I knew that fact before I went into the hills with him. He was examining and classifying Southern Pacific Railroad land. I observed that he was engaged in going around the country in the vicinity of McKittrick from time to time examining lands. He was there for a year or more. He knew about oil formations. He seemed to be very well posted. He examined practically all the Railroad lands in Kern County and in the Coalinga fields, classifying them. He had examined lands in the Elk Hills in behalf of the Southern Pacific Railroad Company. He first went in there in the Fall of 1901 or the Spring of 1902. The Elk Hills,

from my knowledge, [184] embrace Township 30 South, Range 23 East. All the South half of Township 30 South, Range 22 East, lies in the Elk Hills right over the crest and West of the oil croppings in Section 32 of Township 30 South, Range 24 East. Mr. Owen was a man about sixty or sixty-five years of age at that time. When he and I went into the Elk Hills we went through Township 31 South, 25 East, and Township 30 South, 24 East. We were also along the East line of Township 30 South, Range 23 East. At that time there were no roads from McKittrick into the Elk Hills; we had a team take us out through the hills and then we walked. The Elk Hills are about fifteen miles long and six or seven miles wide. They can be plainly seen from the McKittrick fields. I have discussed with Mr. Owen the geological conditions and oil possibilities of lands in the vicinity of McKittrick. We discussed lands there and formations a great deal. He was very familiar with the formations of that country and particularly with reference to the Elk Hills including Township 30 South, Range 23 East, as well as the other townships there. He told me that he believed the oil measures lay under the Buena Vista Hills and that he thought they lay very deep under the Elk Hills. There is an anti-cline running Northwest and Southeast through the Elk Hills. It can be found in a number of sections just North of the apex of the hills in the canyons. I should say it could be found in a dozen different places just North of the crest of the Hills. There is a very well defined anti-cline in Section 14, Township 30 South, Range 22

East, just at the Northwest end of the Elk Hills where the railroad goes through a gap and this is a continuation of the anti-cline running Northwest and Southeast through the Elk Hills. This anti-cline can be followed over the hills to the Southeast. Mr. Owen was acquainted with that anti-cline. He knew of it before I went into the hills with him and I discussed it with him. I did not know of any other oil evidences in the way of outcroppings in **[185]** what is commonly called the Elk Hills but there is a decided oil showing in what I would call the North extension of the Elk Hills. It is beyond the railroad tracks to the West. The evidence consists of oil sandcrops in a number of places. As early as 1901 and before 1904 there were two oil wells on section 6 in Township 30, South, Range 22 East, and there was one on fractional section 1, Township 30 South, Range 22 East. These wells were on the same anticline; the one I refer to on the Elk Hills. When Mr. Owen came in there he asked me if I knew anything about the showing about there and I told him where he would find the croppings. I mean croppings on the West end of the hills West of the railroad. He afterwards told me that he had found the croppings that I referred to and found others further east. That was in the Fall, I think, of 1901, or the Spring of 1902. Mr. Owen, before 1904, spoke several times about the oil showing in section 32, Township 30 South, Range 24 East. From a conversation concerning the Elk Hills as oil territory I know he regarded them as such. That would include Town-

ship 30 South, Range 23 East. He seemed to feel quite sure that there were oil lands in the vicinity of those oil croppings on Section 32, Township 30 South, Range 24 East. The formation of the lands in Township 30 South, Range 23 East, and 30 South, 24 East, consisted of shale, sandstone and clay and Fuller's earth and gypsum. Gypsum is scattered there and there is a large body of Fuller's earth in Township 30 South, Range 23 East, and 30 South Range 24 East, and some in Township 31 South, Range 24 East. It is in quantity and quality to make it of commercial value. Mr. Owen knew of the existence of those minerals as he showed them to me. That was in 1903, I think. In that formation Fuller's earth and gypsum generally occur in conjunction with oil. Mr. Owen thought that the oil formation dipped very fast from the West towards the East so as to make [186] it deeper in the Easterly end of the field. If Mr. Owen heard of any oil seeps he hunted them up. That was one of the main things he was looking after when I first met him. He carried maps or plats of the different townships in the Elk Hills and elsewhere. He put down on those plats or maps information that he obtained with reference to the mineral character of the land. We discussed other lands not in the Elk Hills but in the vicinity pretty thoroughly. I was particularly acquainted with Mr. Owen. I was very intimately acquainted with him from 1902 down to the date of his death. I did not know if Mr. Owen was geologist for any other company except the Southern Pacific Railroad Company.

He took charge of the Kern Trading and Oil Company when it was formed. That was later on. They were operating on lands belonging to the Southern Pacific Railroad Company prior to 1904. I think they were organized several years after I met Mr. Owen. At the time that they were organized he was in their employ as a geologist. He started in to locate their wells for them and later on took charge of the drilling operations. I know the Southern Pacific Railroad would withdraw lands from the market upon report of the mineral character thereof by Mr. Owen. Mr. Owen told me it was his business to examine lands and report or price them and have them withdrawn. On the maps I have mentioned Mr. Owen generally colored the railroad sections that were mineral lands. He wouldn't indicate the presence of oil on the map in any way especially, but for the mineral character he colored them all the same. I was in the Eight Oil Company. At its organization it was composed of myself, Mr. Klipstein, H. T. Tupman, E. W. McCutcheon, J. Owen, W. E. Richardson, Charles Haperkern and my wife. When the Eight Oil Company was organized they had lands in Township 30 South, Range 24 East, on the even numbered sections. Some of the people that were interested in the Eight Oil Company had some lands in Township 30 South, Range [187] 23 East. They were myself, Mr. Haperkern, Mr. Tupman and Mr. Richardson. Mr. Owen, the geologist of the Southern Pacific Railroad Company, had eight thousand shares of stock in the Eight Oil Company, the capital stock of which was

forty thousand shares of the par value of one dollar a share. Mr. Owen furnished information of the geological character of the holdings of the Eight Oil Company to that Company. He showed several of us the fuller's earth and gypsum there and told us that it was possible that the old measures lay under there at a depth that could be reached. At that time we didn't think it was possible at the depth that he stated, to drill profitably for oil. We had confidence in his report so far as the existence of minerals on those lands was concerned. Mr. Owen put up his share of the money for doing the development we did there and the locations of the land and the organization of the Company. Those lands were located for oil, fuller's earth and gypsum and other minerals. The lands in Township 30 South, Range 23 East have absolutely no value for agricultural purposes as they are too hilly to be cultivated and there is not enough level land to do anything with. There is no vegetation that grows the year around on those lands but it has some value for pasture in the Spring of the year as there is some bunch grass and filaree that grows there at that time but it was only in a good season that there was any pasturage. The value of that land is for mineral. That land rents for Fifteen or Seventeen Dollars a section. That is what Miller and Lux pay for the rent of the railroad land. Just about the time of the selection of those lands by the Railroad, about 1904, the same lying in Township 30 South, Range 23 East, I discussed those lands with Mr. Owen. We were at that time discussing the mineral probability

of the hills for fuller's earth especially. That is the time that he showed me the fuller's earth. He said if the Railroad selected those lands they would be selecting mineral lands. In other words, they had no right to select them as he had reported them as mineral land. **[188]**

CROSS EXAMINATION OF SAMUEL P. WIBLE.

Those lands were selected by the Railroad in 1904. I know it because I looked at the records in Visalia several years after they were selected and that was the first time I learned when they were selected. Mr. Owen in 1904 did not say that they were selected at that time. He made this remark to me when we were going over the lands and discussing the lands in the Elk Hills. The remark was made on the road between Elk Hills and Headquarters Ranch. No one was present but Mr. Owen and myself and he stated to me that he had reported these lands as mineral lands. At the time of this conversation those lands had been surveyed but the Government had not yet accepted the survey. At least that was my understanding of it. I am quite sure this conversation took place in 1904. The survey had been accepted at the local office and I think it was held up in San Francisco somewhere. I looked it up one day. My dates might be a little off as to the survey but it had not been accepted by the Secretary of the Interior according to my recollection. I think I only made two

trips into the Elk Hills with Mr. Owen. They were made in 1903 and 1904, I think. I think the second trip was made about six months after the first; that was the best of my recollection. This conversation might have occurred in 1903 although I am pretty sure it was in 1904 and this conversation did take place on my second trip with Mr. Owen into that territory. Mr. Owen stated that if those lands were selected by the Railroad they would be selecting mineral lands. I don't think he knew at that time whether they had been or would be selected. I don't think he told me he had anything to do with their selection. He was employed by the Southern Pacific Railroad Company. He told me so. He said he was employed for the purpose of examining the lands and classifying them as to their mineral character and to price them for sale and either to withdraw them or set a price on them and to [189] designate the character of the land. I can't tell you what date he told me that because we discussed a great many things together. We got to be quite well acquainted there in the Fall. I know of no such Company as the Southern Pacific Company. The Southern Pacific Railroad Company is the only one that I know of. I have just lately heard of the Southern Pacific Company. I know of a lease in the McKittrick country known as the Southern Pacific lease, both the South-end and North-end. He had charge of the production of those leases along about 1906 or 1907. They were being operated, I understood, at that time by the Southern Pacific Railroad Company. That the oil was used as fuel on the engines of the Railroad and the lease was

operated for the development of oil for fuel and was used by the Company operating the road and the employees of that Company had charge of the lease. I have very good reasons for my conclusion that when Mr. Owen was in charge of these leases he was in the employ of the Southern Pacific Railroad Company. I have drawn my conclusion from good information. He never told me that he was employed to pass upon the character of the land that the Southern Pacific Railroad Company expected to ask to have patented. Mr. Owen was associated with me and others, I think, about 1907 in a location in the Elk Hills in Township 30 South, Range 24 East, in the Southerly half of that Township and sections 26, 28, 30, 32 and 34, all even numbered sections. In 1900 and 1901 there was considerable oil excitement in that country and land was located without any knowledge of mineral character. They located everything that was vacant. As a man of experience in the oil fields I would not make a location of land which had no indication of mineral value on the ground at that time. The mere fact of a location is no criterion as to the mineral value. In 1900 and 1901 locations were made on lands that subsequently developed to have nothing in them whatever. At that date the whole country was [**190**] wild there. You could hear talk amongst oil promoters and prospectors about oil being found anywhere and of indications showing immense values at any old place. You cannot determine whether particular territory contains oil until you develop it. The indications on the surface, such as gas, blow-outs, brea or oil sands,

do not always show that there is a producing bed below that. The presence of brea, or oil sand or gas or blow-outs is only an indication. I have had some experience in lode mining and frequently promising indications do not pan out at all and that is true in the oil business. Mr. Owen said he believed the Elk Hills might contain oil. He said the oil measures lay under them and he thought that they were probably so deep they couldn't be reached and made to pay. I had some conversation with him with reference to some land in Township 30 South, Range 23 East, in which he told me that oil could be reached at three thousand feet or over and we didn't drill because we didn't figure that it would pay to drill for it. At that time there were no such wells drilled in the country to that depth. If we had been told at that time that we had to drill to a depth of three thousand feet where we would strike oil we would have regarded it as prohibitive from a standpoint of cost. Mr. Owen said that there was a good chance. We never drilled there. The Associated Oil Company has drilled on sections 24 and 26 in Township 30 South, Range 23 East. On one of these sections they have gone to a depth of four thousand feet. At that time I would have regarded this depth as absolutely prohibitive. At a number of places through the Elk Hills running from Northwest to Southeast I found evidence of an anti-cline. There are two on the East part of it and one on the West. I have heard it said, although I have never been able to trace it, that there are evidences of the two at the West and that they come together at the East. I know what an anti-cline is. I found both

slopes of the [**191**] Anti-cline running through the Elk Hills. Both slopes are revealed in those canyons and are very well defined. The North slope is the best defined. I found probably twelve or fifteen indications of stratification showing the North slope of that anti-cline. I did not find the South slope in so many points but where you find the North slope you can find the South slope. I never went in there to find the anti-cline particularly but I noticed it as I was going through. I am certain that I found stratification showing the South flank of the anti-cline. The South anti-cline was quite plain in section 30 of Township 30 South, Range 24 East, and you can find indications of that South slope of the anti-cline in section 32, Township 30 South, Range 24 East, where I found this blow-out. You find the formation dipping to the South and to the North. The thickness of a section of the stratification revealed on the South side was probably fifty feet. That line of stratification dips to the Southwest. The materials shown in these strata is sandy clay and fuller's-earth. The fuller's-earth strata shows very prominently. When I first went to McKittrick I was engaged principally in the laundry business until I sold out in 1901. I then went into the oil business and farmed South of Bakersfield. I met Mr. Owen frequently on the train going in and out to Bakersfield. I was not with him on all the trips he made through that country. He went a great many places without my being with him. I don't pretend to be able to say what he was doing on these trips, only what he told me and I was not with him so as to observe what he was putting down

on those maps I referred to. I made but two trips with him into the Elk Hills. At that time we didn't see any blow-outs and it was a year or two later that I found the blow-out. I don't think I made over four or five trips with Mr. Owen in the field although I met him frequently on the train. I have sold four or five tons of fuller's-earth at Fifteen Dollars a ton from our location in [**192**] Township 30 South, Range 24 East. We have a location also in Township 30 South, Range 23 East, but we never sold any fuller's-earth from it. We have had it tested and find it valuable commercially. It lies on the ground in strata with soft material over-lying it and you have to remove this material in order to get the fuller's-earth. It is not a very expensive process to get it out as you can get lots of it out without removing very much covering as it is not covered very deep. It is quoted in San Francisco from twenty to thirty dollars a ton depending on the purity. I think we could get it out and haul it to the mill for a dollar and a half to two dollars a ton, and it costs about a dollar a ton to refine it, the total cost being not to exceed four dollars a ton. I was never employed by Mr. Owen or anyone else in connection with the oil properties of the Southern Pacific Company. Mr. Owen, when he took charge of the Kern Trading and Oil Company, was employed under Charles W. Eberlein. He worked under instructions from Eberlein. He came with a letter from Mr. Eberlein with instructions to tell me to stop work on the land. I think that was in 1907 or '8 but not prior to January 1, 1905. Mr. Owen never did tell me he was employed under C. W. Eberlein.

I was very intimately acquainted with Mr. Owen. He never told me about reporting to Mr. C. W. Eberlein but he reported to Mr. E. T. Dumble. I saw Mr. E. T. Dumble in a number of places in the field prior to 1905. He was with Mr. Owen. I know about the Government lands in the Elk Hills being withdrawn from entry or location in 1909 by the United States Land Office in Washington and I discussed it with Mr. Owen. I heard of the Buena Vista Hills being withdrawn in 1900 but I can't say whether the Elk Hills were included in that or not. I heard of the Cancellation of that withdrawal order. I think it was about 1902 or 1903. There was a special agent of the General Land Office from Washington examining that land between the time of the withdrawal order of 1900 and the cancellation of that order in 1903. I saw [**193**] that special agent at McKittrick and in Bakersfield. He was in and out of the vicinity of McKittrick three or four years and I heard that as a result of his report the withdrawal order had been cancelled. At that time I knew very little about the Elk Hills. Prior to January 1, 1905, the chief activity in the development and production of oil was right in the immediate vicinity of McKittrick and West of it. It did not extend much North. The attention of practical oil prospectors was devoted more to the territory around McKittrick and to the West of McKittrick and leading down towards Sunset. They didn't go across the valley to the North as that was not territory which at that time attracted practical oil men.

RE-DIRECT EXAMINATION OF SAMUEL P. WIBLE.

Speaking of the conditions of the land as to being covered with locations in that territory during that stampede in the early part of 1900 and 1901 I didn't say that none of those locations were made upon good evidences of oil. There were locations that I know of which were made by parties other than those who were merely speculating on the possibilities of oil. Most of the operations were carried on under the advice of a geologist and I considered Owen one of the best in the field. All of our locations were made on the advice of competent men. Among the competent men to whom I refer were Mr. Treadwell and Mr. Youle. We went under their advice in 1904. The deepest well in that vicinity was a little over two thousand feet. There was no limit to the depth of wells that could be drilled in that vicinity that I know of. It was the general custom of oil men to drill until they got oil then quit and generally they got oil under shallow depth and did not attempt to go deeper. There [**194**] had been no drilling in the deep territory in the Elk Hills at that time except this deep well that was a little over two thousand feet which was not in the Elk Hills but was in the Northwesterly extension of the hills. I do not know the limit of the depth to which a well could be drilled in 1904 and made profitable. The depth they could drill would depend largely on the formation you had to go through. I don't know of any limits now placed on

the depth of an oil well. They keep going a little deeper every year. The well drilled by the Associated Oil Company on section 24, in Township 30 South, Range 23 East, went to a depth of thirty-two hundred feet and the one on section 26, Township 30 South, Range 23 East, according to my information, went a little over four thousand feet. The well on section 26 produced oil. In drilling these wells they used a standard rig and a rotary rig. I don't know if the well on section 26 was a paying well. The well on section 24 never produced any oil. It might if they would open it up. They have the oil shut off in the casing. There was a contest made over section 16 in Township 30 South, Range 23 East, by a man of the name of Joe Randall who was an agricultural entryman. He attempted to raise a crop there. It was the best year for moisture that I have ever seen in the Elk Hills. I don't know whether he got a crop. I didn't see it after it ripened but I saw it after it began to ripen and it was a very small crop. There was some barley that would have made a little hay. There would be no possibility for Joe Randall or anyone else to raise a crop on that section this year or any ordinary year. Other than Mr. Owen telling me that he was an employee of the Southern Pacific Railroad Company I have seen documentary evidence in his possession. I saw his pass issued to him by the Southern Pacific Railroad and it read: "Chief Geologist of the Southern Pacific Railroad." From 1903 to 1908 the oil business in the McKittrick vicinity was very dull and there was practically [195] no new developments on account of the price of oil and

lack of facilities for getting rid of it. It was only once in a while you could get cars and for that reason you couldn't contract for the oil. The activity stopped almost entirely. The lowest I know of oil being sold for at that time was Eleven cents a barrel.

RE-CROSS EXAMINATION
OF
SAMUEL P. WIBLE.

It sold for eleven cents, I think, in 1903, but in 1904 I think we got fifteen cents a barrel for what we could sell. Some locations were made in 1900 and 1901 during the time of the great rush under the advice of competent geologists. None were made at that time that I know of in the Elk Hills under the advice of competent geologists. I saw Mr. Owen riding on that pass on the branch line between McKittrick and Bakersfield and the Conductor accepted the pass. I don't think I could be mistaken about the name of the Railroad Company that was on that pass. I would modify my statement, that the unsurveyed portions of the land was of no value for there is some land in Township 30 South, Range 23 East, which, if there was water put on it would be valuable enough to grow some crops. It is also worth something for grazing but very little. I have seen cattle on there but I have never seen any sheep in there. [196].

CHARLES BRISCO, a witness called and sworn on behalf of the plaintiff, testified as follows:

DIRECT EXAMINATION.

I reside in McKittrick. I have been living there a

little over a year. I first went to McKittrick in 1897 or '8 and I remained there until August, 1904. I know about the oil seepages or oil indications in and about the town of McKittrick and the hills there. Those indications consisted of oil running out of the ground and seeping and gas pockets and places where the gas was bubbling up. When it would rain the gas would bubble up and oil would run out down the hill. I guess I noticed this around there in a hundred places. I also noticed evidence of waste of oil there in former times. There was what we called a Tar Flat. We never did anything with that Tar Flat because in the summer time you could hardly get across it and dogs and squirrels and everything would get stuck in it. This Tar Flat was about a half mile South and East of McKittrick. I have been engaged in the business of prospecting, mining and developing oil in the vicinity of McKittrick. That is what I went in there for. When I first went in there I drilled for a Company called the Shale Basin. I worked for them three or four months and I also worked for other people. I found a small brea bed—dried oil—dried asphaltum—there in the Elk Hills but I don't remember seeing any in Buena Vista Hills. I found this in the East slope of the Elk Hills about twelve or fifteen miles South and East of McKittrick. This was about 1901 or 1902. It may have been earlier than that. I never heard of it before I found it but I reported my discovery to several people. Before 1904 I took a man by the name of Owen, who was a mineralogist for the Southern Pacific, over to this brea bed that I found in the Elk Hills. At that

time I was engaged with my wife in running the hotel at McKittrick and I got acquainted [197] with Mr. Owen around the hotel. He was there on and off, I would say, three months at a time but not all the time; he was just back and forth. I think that was in 1903. When I told him about my discovery in the Elk Hills he wanted to know if I could take him to it and I did. In going there we went five or six miles South of McKittrick and a little East to a corner stake. I have forgotten what section that was but it was staked there and it was right on the back bone of the ridge that would run over into the Elk Hills and it was easier to go up in that place than any other place. We followed that road right up there until we got on the summit and then we followed the summit maybe a mile. Then we went upon the summit into a big range of Blue Hills that were there and we followed that right along down until I got down into the canyon that lead into that brea. Mr. Owen, who was with me, was on one side of the hill back and forth. We worked our way through. We didn't take any regular road as he was looking the ground over as we went and so was I. In my judgment he made a careful observation and examination of the lands as we passed through them. We kept right on down those ridges and we followed those ranges down until we came to the brea bed as I knew where it was. We found it and I showed it to Mr. Owen. This brea bed consisted of dry dirt and asphaltum all mixed together, the same as any brea is composed of, as far as I know, or as near as I could explain it. It would burn as we tried it. I lit it. We were out one night

on that trip. We made our camp that night where there was a little divide between the Elk Hills. I think it was pretty near the South end of the hills. It was on the South side of the hills. After that time I knew what Mr. Owen's business was as he told me. He was an expert experting the territory there as a mineralogist for the S. P. At the time that Mr. Owen and I were traversing the Elk Hills he told me it was good oil territory. When he said that he was referring to a [198] certain slope of ground that was in the hills. If I remember right he said that he thought that would be the best territory of any of it but would be very deep. I don't know whether that conversation was on that trip as we had several conversations in regard to it. These conversations were before I left in August, 1904, as I have not seen Mr. Owen since. On that trip Mr. Owen took samples of shale or sand of the different sections we traversed. I don't know how many samples he did take but he had four or five little sacks. I think he kept each sample in a sack by itself and I think he tagged the sack. Within the last few months I went over that route that I took with Professor Owen in order to determine where I went with him. This last trip was in company with Oskar Martin, a government agent on mineralogy. In making that trip with Mr. Martin I pointed out to him the nearest I could the trip I took with Professor Owen in 1903. From the ground which I traversed with Mr. Martin I could see the lands which I visited in 1903 on that trip with Professor Owen. When I was with Martin I showed him all along where Owen and I went down to where

that asphaltum was. Mr. Martin made notes as we went along to identify the places to which we went. Mr. Owen referred to the character of the oil which would be produced in the Elk Hills. He said he thought it would be better as it would be deeper and there would be more gases in it. By that I mean that the oil would be lighter. Professor Owen told me that the team we used on that trip was the Southern Pacific's team. I know Mr. J. B. Treadwell. He operated in that country before I went on that trip with Mr. Owen. He was the Superintendent there for the Southern Pacific and during that period he brought in quite a lot of wells, I should say ten or fifteen. He told me that he had charge of the oil business in that part of the territory at that time—that division I think he called it. I remember the oil rush in 1901, 2, 3 and 4. I think the country [**199**] at that time was pretty well located and there was considerable excitement. I was not personally acquainted with E. T. Dumble. I heard that he was with the Southern Pacific and that he had control of the wells a great deal then and worked in conjunction with Mr. Treadwell. He and Treadwell were out in the fields a great deal together looking over the territory to see what it was good for. I met them several times. On three different occasions I showed Mr. Owen lands in the vicinity of that field which he regarded as valuable for oil. There was a depression in the oil business in McKittrick I think, in 1901, 2 and 3 and it continued a year or two after I went away from there in 1904. During the time that I was there I was actively engaged in the business of prospecting and

development. The cause of the depression was our inability to get rid of our oil. We couldn't sell and we couldn't get it out of the field because there were no facilities for transportation. We would order cars but we couldn't get them. I know that on my recent trip with Mr. Martin that I pointed out to him substantially the road taken by me and Professor Owen on the occasion that I mentioned.

CROSS EXAMINATION
OF
CHARLES BRISCO.

I applied to J. B. Treadwell for cars and he said he didn't have any. If we had had cars at times we would have had a market for our oils. I don't think the depression was due to a lack of market. Our company claimed that they had sale for the oil but we couldn't get it to the market. I had charge of the shipping for awhile. I knew that cars were loaded but I don't know who they were loaded for. This car shortage was quite general. I think the oil excitement in that district ceased about 1901. That is, the rush of the locations and so on. During that [200] excitement people located anything they could get on to whether it had a surface showing or not and a great many of those locations never had any work done on them at all. Mr. Owen told me he was experting territory as Mineralogist for the S. P. He told me that on several occasions in 1903. He was not a very talkative man about his business. Was rather secretive and would not talk much to those with whom he was not intimate. There is no asphaltum at the place in

Elk Hills to which I took him. It is merely oil oozed up and dried in the dirt and shale. As Mr. Owen explained it to me it was a fissure that had been blown out there. There was dried oil there, that is it was dried in the dirt and shale. I never made a test to determine whether or not it contained oil and my statement is based upon my observation and upon the test I made with the match when I lit it as it would burn and you could smell it. You could take a piece of that substance and light it with a match. When I was there with Mr. Martin and showed the place to him he told me it was in section 32 or 23, Township 30 South, Range 24 East. This deposit is ten or twelve miles West and a little East of the location of the Headquarters Ranch. You can see the Headquarters Ranch from the top of the hill but not from the brea bed. I was not very familiar with the country from Elk Hills down to the Headquarters Ranch. I never was down through that way. I should judge this brea bed is twelve or thirteen miles from McKittrick South and East. It was not in the Buena Vista Hills. It was in the Elk Hills. I couldn't say that it was on that first trip that Mr. Owen told me what his occupation was. He said he was experting and was a Mineralogist for the S. P. or the Southern Pacific. It was on that trip that he told me that the Elk Hills were good oil territory. I used to dig into him quite a bit so as to get some talk out of him. It was pretty hard to dig any talk out of him. The reason that made me do that was that I had some land located [201] and I thought he had pretty good judgment and I dug into him to ask about that land.

I told him: "I have got some land located there myself and I would like to have you go in there to see what you think about it." After I got him in there I kept asking him and I asked him two or three times before I got any answer and then he said: "This is good enongh, my boy, hang on to it." I hung on to it as long as I could, three or four years. This land was almost East and South from McKittrick. It was not as far South as we went down into. It was located six or seven miles from McKittrick in the Elk Hills. I don't remember what section it is but it was in the same Township as McKittrick is in. It was three or four miles South of where the railroad passed the cut through the Elk Hills at the Western end. I do not remember the number of the section. (Here the witness placed his finger upon a point in Government Exhibit "I" at about the place where this location was made and the record shows that the witness points to Township 30 South, Range 23 East). Mr. Owen did not tell me that he knew there was oil at the place where I had my location or that he knew there was oil in that part of the Elk Hills. I have seen brea deposits that didn't show by future development the existence of oil but in my experience, wherever you find brea it is an indication that there is an oil belt there or near there somewhere and it has been oozed out there by the gas. It may be a mile or it may be a half mile or it may be right there and it may come straight up. That is my experience in brea. I have known wells to be sunk near those deposits and off to the side to some distance and yield no productive well. Where the Southern Pacific

drilled up on the brea bed at McKittrick they drilled right into the brea and got a dry hole within twenty feet of where they got a well. It is by no means a certainty that there will be oil underlying any particular territory on account of that indication but it was a sure indication that there [**202**] was oil near there somewhere. Mr. Owen on that trip took dips and samples and so on. That was his business. He told me he thought the territory was very deep and I had no reason to doubt his statement and that was the impression of everyone. I don't know of any person at that time that actually knew of the existence of oil in the Elk Hills. We believed it to be there by reason of its contiguity to proven territory and the indications of the surface were just as good there as anywhere all over that territory. I didn't endeavor to locate any anti-clines in the hills but Mr. Owen did. I merely went with him there to show him that brea on that location. I didn't pay any further attention to the land after I located it for about two years as I was sick and was trying to die more than I was looking for an interest in oil lands then. Before I left McKittrick the last time I was in the hills was when I went out there with Mr. Owen. Mr. Owen was not developing oil properties. He was on the road getting samples and looking the territory over and that was all I ever did know of him.

RE-DIRECT EXAMINATION
OF
CHARLES BRISCO.

If we had drilled a well in the Elk Hills we could not have shipped any oil. I know the S. P. or the

S. P. Railroad Company had cars to ship their oil during that depression. [203]

F. OSKAR MARTIN, a witness called and sworn on behalf of the plaintiff, testified as follows:

DIRECT EXAMINATION.

I am the Mineral Inspector of the General Land Office of the Interior Department. I have had experience in engineering and surveying. I was assistant in the soil survey from 1901 to 1905. I was then appointed on the Engineering staff of the Isthmian Canal Commission and served on the canal as Assistant Engineer for one year. Returning to Idaho I was a licensed land surveyor of Idaho. I also held commissions as United States Deputy Mineral Surveyor to Idaho and Montana for three or four years. I know Mr. Charles Brisco who testified in this case yesterday. I made a trip with Mr. Brisco into the Elk Hills on the 24th of February, 1912. At that time Mr. Brisco pointed out to me the lands which he and Mr. Owen some years before had gone over together. I identified the lands from the section corners or the government stakes. I showed Mr. Brisco two section corners which he recognized as being the same ones that Mr. Owen and himself at some prior time had seen. I am the Mr. Martin referred to by Mr. Brisco in his testimony. I took Mr. Brisco to the Southwest corner of section 33, Township 30 South, Range 23 East, and he recognized the corner as being the same which Mr. Owen and himself had started from. He pointed out to me the route which Mr.

Owen and himself had taken going in a Northeasterly direction towards the summit of the Elk Hills. Mr. Brisco and I went back to the team and rig from said corner and traveled through sections 32 and 29 to the summit of the Elk Hills. This was in Township 30 South, Range 23 East. We then went Easterly along the summit until we came to the common corner of sections 26, 27, 34 and 35, same township and same range, which Mr. Brisco also recognized as having been seen by him and [204] Mr. Owen. Mr. Brisco and I then went along the summit of Elk Hills into section 31, Township 30 South, Range 24 East and then followed the spur trending in a Northerly direction to the gas or oil seepage which Mr. Brisco recognized as having been the same which he and Mr. Owen had been to. This seepage is situated in the Northwest quarter of Section 32, Township 30 South, Range 24 East. We then returned to the summit and while driving slowly along the summit in a Westerly direction Mr. Brisco pointed out to me the route which he and Professor Owen had taken. From this route which we traveled you can see on either side Northerly or Southerly all over the country. Mr. Brisco pointed out to me from the time we entered the Elk Hills all the lands which he claimed he and Mr. Owen had previously traversed. I made a map from the notes which I took at that time. As a base for the map I used a photo-lithographic copy of Township 30 South, Range 23 East, (Plaintiff's Exhibit "K"). The green line on this map is the route traveled by Mr. Brisco and myself and the red line is the route as traveled by Mr. Owen and Mr. Brisco.

The photo-lithographic copy which I used as the base of this map is from the files of the General Land Office, Washington, D. C.

CROSS EXAMINATION
OF
F. OSKAR MARTIN.

When I went with Mr. Brisco we followed the route that Brisco pointed out to me that he had taken with Mr. Owen as far as the first section corner which would be down at the South line of the Township and from there on we could see the summit. The only place where our routes crossed was in the Southeast of section 27. In other places we were as much as a mile or two from the route traversed by Mr. Brisco and Mr. Owen but we were always in sight of the route. [205]

RE-DIRECT EXAMINATION
OF
F. OSKAR MARTIN.

Mr. Owen and Mr. Brisco traversed through sections 33, 34, 24 and 26, Township 30 South, Range 23 East in a Northeasterly direction. Thence to the East entering Township 30 South, Range 24 East they traveled in a Southeasterly direction to sections 30, 29 and 32. This route was visible at all times from the route which Mr. Brisco and I took.

RE-CROSS EXAMINATION
OF
F. OSKAR MARTIN.

There was nothing to prevent Mr. Brisco and me from following the route that Mr. Brisco had taken

with Mr. Owen but it was not necessary because one can see two or three miles in any direction. Prior to the time I went over this route with Mr. Brisco I had been over every section there a number of times and had located all the different section corners and I was reasonably sure of knowing in what particular section any land was that I was looking at from the summit. The general route which Mr. Owen and Mr. Brisco took is the same as outlined in Exhibit "K" by the red line. The reason we did not follow the same course followed by Mr. Brisco and Mr. Owen all the way was because Mr. Brisco had an engagement in McKittrick that night and was in a hurry to get back. The chief purpose of my trip was to learn whether or not Mr. Brisco and Mr. Owen had found the gas and oil seepage in Section 32, Township 30 South, Range 24 East, as I regarded that as the important thing. I had been over that ground lots of times before so I knew at the time I was out with Mr. Brisco what Mr. Owen did see as he traveled over that ground. [**206**]

RE-DIRECT EXAMINATION
OF
F. OSKAR MARTIN.

I knew from personal observation made prior to my visit with Mr. Brisco what the situation in each particular section was as he pointed them out to me and it was wholly unnecessary to visit those places traversed by Mr. Owen and Mr. Brisco in 1903 as I knew it as well as if I had traversed it over again with Mr. Brisco.

RE-CROSS EXAMINATION OF F. OSKAR MARTIN.

Whatever conclusions I drew as to the character of that township I based upon a very careful examination of the entire township and surrounding country. I have seen those very things which Mr. Owen must have seen.

T. E. KLIPSTEIN, a witness called and sworn on behalf of the plaintiff, testified as follows:

DIRECT EXAMINATION.

I reside in Bakersfield. I have lived in Kern County twenty-three years and am Secretary of the Eight Oil Company. I was one of the original organizers of that corporation. Associated with me was S. P. Wible, H. T. Tupman, C. F. Haberkern, W. E. Richardson, E. W. McCutcheon, J. Owen and G. G. Wible. The company was organized April 9th, 1909. I know Mr. J. Owen. He is the same gentleman that has been referred to in the testimony here during the last few days. Mr. Owen had two thousand shares of stock in our company. At the time of the organization he had eight thousand shares. We were organized for fifty thousand and thirty-four thousand shares were issued. At the [**207**] present time Mr. Owen's representatives own two thousand shares. I know Mr. E. T. Dumble. He has two thousand six hundred and sixty seven shares of our company's stock which was issued to him on October 6, 1909. Immediately subsequent to the time of the incorpora-

tion of the Eight Oil Company their holdings in Kern County consisted of the North half of section 31, and all of the South half of Section 32 in Township 31 South, Range 23 East, M.D.M.; all of the South half of Section 4, Township 32 South, Range 23 East; all of Sections 26, 30, 32 and 34 in Township 30 South, Range 24 East; all of Sections 20, 22, 24, 26, 28, 30, 32 and 34 in Township 30 South, Range 23 East; all of section 4 and the North half of Section 8 in Township 31 South, Range 24 East. Section 24 in Township 30 South, Range 23 East, has since been conveyed to others. Our company has been engaged in the business of prospecting and mining and development in Township 30 South, 24 East. We have declared dividends on the capital stock and the estate or heirs of Mr. Owen have received dividends amounting to $15,225. This was paid only on the two thousand shares. Dividends to the amount of $20,502.53 have been paid to Mr. E. T. Dumble. Mr. Dumble has voted his stock by proxy within the last year. He sent his proxy by letter signed by himself. (The letter is here identified and read into the record as follows: "Southern Pacific Company. Office of E. T. Dumble, Consulting Geologist. Form 2621 B. In reply refer to No. Houston, Texas, April 6, 1912. I hereby appoint Erwin W. Owen as my proxy to represent me at the meeting of the Eight Oil Company to be held at Bakersfield on Friday, the 12th day of April, 1912, for the purpose of election of Directors and for the transaction of such other business as may properly come before the meeting, and hereby empower him to vote the stock standing in my name,

amounting to two thousand six hundred and sixty-seven (2667) shares. Signed E. T. Dumble. Witness: G. T. Carnes. E. M. Johnson.") [208]

CROSS EXAMINATION OF T. E. KLIPSTEIN.

Dividends were paid at different times and since the stock was issued, I think in all four times. The first dividend was paid in 1910. The lands held by this company were first acquired in December 1907 and January, 1908. The only work this company has ever done was in township 30 South, Range 24 East.

CHARLES F. HABERKERN, a witness called and sworn on behalf of the plaintiff, testified as follows:

DIRECT EXAMINATION.

I am forty-six years of age. Am a resident of Bakersfield and have resided in Kern County thirty odd years. I have been engaged in the development and mining or prospecting of lands in the Elk Hills and vicinity for the minerals contained therein. I am one of the original locators of the Eight Oil Company in that section and I am Director of that Company. I knew Josiah Owen during his life time. I knew him very intimately. I have been in the Elk Hills with him remaining there as long as five days at a time. When we were out there we stopped at the Headquarters ranch belonging to Miller and Lux. We looked all over the country and I showed him the minerals I found there. The first time I went in

there with him, in August or September, 1904, we went all over the Elk Hills from one end to the other on both sides of the slope. I couldn't say just what year we went but we went all over the Elk Hills, all over those sections. We did not go to the flats, we went just to the hills. I know where Township 30 South, Range 23 East is and in our examination we passed over the lands in that township. I refer to the lands of that township which lie [**209**] in the hills and which would be the South half of the township. We also went to the townships to the East and to the West of that in those hills. I know of an oil showing, or outcrop, or gas blow-out, in the Northwest quarter of Section 32, Township 30 South, Range 24 East. At that time Mr. Owen and I visited that oil seep and we also went all over the township and Mr. Owen made a careful examination of the lands through the hills and at that time we discussed the possibility of that country for oil, fuller's-earth and gypsum. He told me the land is very valuable for fuller's-earth and gypsum but he thought there was oil there but that it was very deep and it wouldn't pay to go after it. The showing on Township 30 South, Range 23 East, looked good enough to me to afterwards locate the lands there. My associates and I, in pursuance of that examination made by Mr. Owen and me, later located lands in Township 30 South, Range 23 East. We located the even numbered sections. The reason we didn't locate any odd numbered sections at that time, although I wanted to do it, when Mr. Owen and I went out again he said that he was working for the railroad company and not to take any railroad land.

By the railroad lands I understood every odd section is railroad land in Township 30 South, Range 23 East. That township was not surveyed in 1901 but was surveyed later and the stakes were visible on the land. Mr. Owen was experienced in going about the hills and he found the corner stakes and the center stakes. I have four thousand shares of stock in the Eight Oil Company. It was called the Eight Oil Company because there were eight locators. After the Company was organized Mr. Owen told me he wanted to get some stock in the Company for Mr. Hunt and Mr. Dumble and this was arranged. Mr. Owen was employed by the Southern Pacific Railroad Company examining lands and looking after their oil interests. He claimed to be a geologist. I understood that Mr. Dumble was the head man of the [210] Southern Pacific Railroad Company on this coast in the oil and mineral matters. The statement Mr. Owen made to me about keeping off the odd numbered sections in Township 30 South, Range 23 East, was made in August or September, 1904.

CROSS EXAMINATION OF CHARLES F. HABERKERN.

The first location I made in Township 30 South, Range 23 East, was in 1907. I had been there I presume, about a dozen times with Mr. Owen. At the time I made location in 1907 Mr. McCutcheon was with me. I followed Mr. Owen's suggestion about not locating anything except even sections. The first

time Mr. Owen went in there with me in 1904 I showed him some mineral that I found in there. I took it for fire clay. The place where I found it was West of the Headquarters Ranch. I didn't remember what section or township it was in but we found fuller's-earth and gypsum all over those hills. We didn't make any locations at that time and not until three years later although Mr. Owen was in the hills with me a number of times during the interim. It was in 1907 that we made our locations on the even sections. I don't know if the odd sections at that time had been patented to the Railroad. At that time I was living in Bakersfield. I probably saw the "Morning Echo", the Bakersfield paper, in 1904 from time to time. The reason we did not locate before 1907 was because after we found out that we had that fuller's-earth Mr. Owen sent it to different chemists and got reports and it was dull times and we couldn't do anything with it; money was scarce and that is the reason we didn't locate at that time. All of the development work of the Eight Oil Company was done on Township 30 South, Range 24 East. The claims in Township 30 South, Range 23 East, don't belong to the Eight Oil Company. I have an interest in that Township, and we developed it. [211] The sections that I was interested in in Township 30 South, Range 23 East, were: Sections 20, 22, 24 and the North half of 26 and 28. We have never sold any gypsum or fuller's-earth from these sections and I have never heard of any being sold. The deposits of fuller's-earth and gypsum in Township 30 South, Range 24 East, are exactly the same as are those in

Township 30 South, Range 23 East. The dividends that were paid were derived from the sale of land in section 32, Township 31 South, Range 23 East and no dividends have been derived from the sale of fuller's-earth or gypsum. Perhaps a month before we made our locations in 1907 we talked the matter over with Mr. Owen and he said to locate on the even sections in 30 South, Range 23 East. It was a couple of years before that when he said that he was working for the Railroad and to let the Railroad land alone. It would be difficult for me to fix the exact time when anything particular was said by him. When we used to go out together we would sit together evenings and talk two or three hours. I know positively when Mr. Owen and I went out into the Elk Hills the first time and I showed him the railroad land where the mineral was on and I said, "How about locating those?" and he said, "No." That was the visit there in August or September, 1904. After that we didn't discuss any more railroad lands in regard to locating them because I knew Mr. Owen didn't like it. On that first trip it was when he said if there is any oil there it would be very deep and he said it wouldn't pay and the only thing that was there that was worthy of any attention was fuller's-earth and gypsum at that time. Mr. Owen made inquiries at that time as to what fuller's-earth was selling for. At the time we made our location in 1907 the nearest producing oil well was at McKittrick and no oil had been found in the Buena Vista Hills. In 1904 when I went into the hills with Mr. Owen he told me there is a possibility of oil there, that it was very deep,

from three to four thousand feet. [212] It would not pay at that time because oil was very low at that time. I did not know of any wells at that time that were that deep and such a depth was regarded as prohibitive at that time by a practical oil man. I did think it might be oil territory and I didn't pass it up altogether. I know Mr. Owen was working for the Southern Pacific Railroad because he told me so hundreds of times. I am positive about that. Mr. Dumble told me that he was head man from Texas to California of all mineral, coal and oil and other minerals for the Southern Pacific Railroad Company. Mr. Dumble told me that he was producing oil for use on the engines of the railroad. That he was the head man for oils for the roads and was producing in Kern River, McKittrick and Coalinga and that he had charge of the production of oil for fuel on the lines of the Southern Pacific Railroad Company.

RE-CROSS EXAMINATION OF CHARLES F. HEBERKERN.

When I rode over the Elk Hills with Mr. Owen in August or September, 1904, I showed him some lands where there was a lot of fuller's-earth and gypsum and I said, "There is a section" and I told him what section it was. He said, "Mr. Haberkern, don't locate that land. It is Railroad land. I am working for the Railroad Company myself and it wouldn't look good for me to locate the land," and it was marked "S.P.R.R." on a map he had with him. I am

positive that that was stated in that conversation on our first trip and not when I made our locations in 1907 because I never mentioned Railroad land to him afterwards because I knew he wouldn't like it if I would locate it. I am positive that he said in August or September, 1904, that the Railroad then owned the land. In that conversation in 1904 in the Elk Hills he stated that the odd sections were as good as the even; that the Railroad lands in that township were just as good for mineral as [213] the even sections.

W. G. SYLVESTER, a witness called and sworn on behalf of the plaintiff, testified as follows:

DIRECT EXAMINATION.

I reside in Bakersfield and have lived in Kern County since 1899. The oil boom had just started when I came there. I know where the Elk Hills are, East of McKittrick. I have been in those hills. The first time I went in there was about the first of January, 1900. I went in looking for mineral locations, petroleum and oil lands. I went from Bakersfield and took a surveyor and a crew of ten men with me. I found the land mostly unsurveyed and we had it surveyed. We spent about three weeks in the Elk Hills. We went all over the territory and surveyed out some of it and located it. I went thoroughly over the surface of the ground in the territory riding over the hills. I think I went over Township 30 South, Range 23 East. I made investigations of those hills for the purpose of ascertaining if there was any evidence of its being oil territory. I didn't

have any particular knowledge of oil formations or oil sands except what I could see. I made examinations of the surface indications. At the time I arrived there there was another party in there locating at the same time. His name was Jeff Packard. He had with him quite a number of riders and we were both after the same land. I found evidence of oil there. We started from Headquarters Ranch house and started to survey from a stake there at one of the ranch corners. We had gone into the hills several miles West and we saw indications of what I would call asphaltum. I don't remember what section it was on. It was possibly four or five miles West and possibly a little South of the Headquarters Ranch. We found a rather recent oil seepage which was somewhat dried out although it would burn giving off an odor like coal [**214**] oil or gasoline. We found this seepage in a gulch and we found asphalt high up on the hill. I located about ten or twenty claims at that time. Packard located in the neighborhood of one hundred or a hundred and fifty, I think. We sort of ran a race to go out and locate the land. He got wind of the fact that we were going to locate the land. We left before he did. He came out horse back and got quite a number of riders from the Headquarters Ranch house, however, parties who were familiar with the territory and I think along about daybreak or 3 or 4 o'clock they came out. The first day we got started we found them in the field with their notices out and running out the lines on horse back. I don't know how they got their lines as it was unsurveyed at that time. We finally compro-

mised with Packard to take an equal share with him of all the lands located. I think there were a hundred and fifty-seven claims located in all, each claim covering a quarter section. With reference to the place where we found the asphalt we located in every direction with the exception of North. The locations may have extended over the North side of the range summit line. I am uncertain. I don't know how much Packard spent but I spent between eight hundred and a thousand Dollars. Our locations extended into four townships, 30 South, 23 East, 30 South, 24 East, 31 South, 23 East and 31 South, 24 East. Our locations lapsed because we couldn't do anything with them. I tried to but I couldn't get anyone to drill as they considered it wild-catting to go in there. We held onto the claims for a couple of years when a greater part of them were re-located after 1902 by the Packard interests. The low price of oil made the attempt to produce oil then too expensive and too risky and made it hard to do anything with it. I believed those lands to be oil lands susceptible of development and production on a commercial basis at the time I made my locations as I went so far as to put down a hole just a little [**215**] North of there on Section 8 in Township 30 South, Range 23 East. That was 1901. We went down 980 feet. A man by the name of Brisco, who testified here, was the driller. The Empire Oil and Development Company, in which I was the heaviest owner, sunk the well and Brisco was employed by us. We abandoned that well in 1901 because there was so much gas that the drilling became so expensive that we couldn't stand the

pressure and had to quit. I don't think we found any oil in that well. I was there at different times when they were drilling. After we got down 980 feet we concluded we would quit drilling and I never went back. We left the boilers and the complete outfit there. I am sure this was on Section 8, Township 30 South, Range 23 East. As to the agricultural possibilities in the Elk Hills for raising crops I think a man would have a picnic raising a crop there as the hills are pretty steep and there is absolutely no water. There is no flat land there excepting the valley between the Elk Hills and the Buena Vista Hills. In a good season I believe there would be grazing anywhere in the hills. I found some gypsum and fuller's-earth in my investigation of the Elk Hills. I also noticed the stratification all through there. I found stratification in the Elk Hills. You can see it in almost any of the gulches. I am not a geologist but it didn't require a geologist to see it at the time I went into the Elk Hills. When I went into the Elk Hills there was an oil excitement in the vicinity of McKittrick which kept up for several years.

CROSS EXAMINATION
OF
W. G. SYLVESTER.

The course of the anti-cline was Northwest and Southeast. I presume it was one anti-cline but you could find it in a dozen different places. I started from Bakersfield to locate in the Temblor Hills on account of the oil excitement. The cause of [**216**] that excitement was the discovery of oil around the

vicinity of McKittrick. We stopped over night at the Headquarters Ranch house and the surveyor I had with me told me that he thought it was ridiculous to go any further, that those hills around there were probably as good as the rest. He said he had been over the hills and they looked as good as the rest and I followed his advice and went to the Elk Hills instead of going beyond McKittrick. I was anxious to locate as many as I could in as short a time as possible but Packard had the advantage as his men were all horseback and he got more claims. There was some dispute about the accuracy of the locations and I persuaded him to knock off a number of his claims. We didn't discover anything until we found this asphalt that we saw. At that time I didn't know that a discovery was essential to a location. Our idea was to cover as much territory with proper monuments and notices as possible. I really don't know whether what we found would be called asphalt. It was a formation similar to the blow-outs they have at McKittrick. I presume asphalt is oil sand which has dried out but I don't know what asphalt is. I don't remember whether the seepage was right close to the vicinity of the blow-out but my recollection is that it was in a deep gulch close by the blow-out. They were not very far apart, probably in the same section in Township 30 South, 24 East, I think, about four or five miles Southwest of Headquarters Ranch. I found no such indications in Township 30 South, 23 East. I did not find any oil men from McKittrick in there trying to locate when I got there. At that time Packard was Marshal of Bakersfield and I was practising

dentistry and neither one of us was a practical oil man. After we made our locations I did nothing further. I did not ever re-locate them. I think Packard re-located those lands two years later. A great many competent oil men came into the country about that time. I didn't see any indication [**217**] of oil, only what we saw in the hills and over in the gulch. The well I sunk in 1901 was on section 8, Township 30, Range 23 East and it was in a spur of the Elk Hills.

H. A. BLODGET, a witness called and sworn on behalf of the plaintiff, testified as follows:

DIRECT EXAMINATION.

I reside at Bakersfield and have resided in Kern County thirty-seven years or more. During the last twenty-three years I have been engaged in handling oil in the Sunset, McKittrick and Midway fields. I am a pioneer in those fields. I have been engaged quite extensively in the business during the last twenty years. The Company with which I was connected owned a large area of oil bearing lands in the Sunset fields and had some interests in the McKittrick in the early days and had large interests in the acreage on the West side since 1890 and some interests in the McKittrick as far back as 1878. In a general way I am thoroughly familiar with the history of the oil industry in Kern County for the last twenty years and I had some interests in McKittrick in 1870. We had some locations in the McKittrick in 1877 or '78. They were made under the mining laws of the

United States and were for the purpose of drilling for oil. I believe I had an interest in probably twenty locations at that time, all being a hundred and sixty acre claims but one. These locations commenced Northwest of McKittrick and extended three or four miles right down both sides of what is now McKittrick, right on down the strike Southeast. By strike I mean strike or outcrop, the strike or the break that was evidenced by oil seepage. These oil seepages were visible, very much in evidence and they extended for four or five miles along the strike or break Northwest and Southeast. That was the general strike of the oil bearing formation through that [**218**] country. It runs parallel in the valley. The oil developments commenced in the Sunset district about 1888 or 1889 and during the next ten years we had done considerable drilling covering a space of two or three miles. I think prior to 1890 I had practically visited all the asphalt deposits from Sunset to McKittrick. I think I had personally seen all of them. It was at that time when our activities begun on the West side. That was 1890 and then it was within a year or so that I was familiar with all the seepages. The largest seepage was right at McKittrick. Then the break was very marked all along there for a couple of miles or more and there was no brea deposits of any extent Southeast of McKittrick—and there was one quite prominent spring in what was called the head of the Elk valley which was perhaps two and a half or three miles Southeast of this large seepage that I spoke of that is now McKittrick. From there on I know of no seepages un-

til we struck the Sunset field and the first seepage was just South of the Eight Standard line. It was in Section 2, Township 11 North, Range 24 West. From there the seepages extended for three or four miles Southeast. I was familiar with what had taken place in the development of that country in a general way over the entire field. I was actively interested in oil operations in the vicinity South of McKittrick prior to that time and made asphalt in 1891, 92, 93 and 94. I was familiar in a general way with the development of that country for oil on July 1, 1904. There was a continuous chain of wells from a point, say two or three miles Southeast of old Sunset up into the Midway as far as Chanslor and Canfield's operations and then there was a gap of two miles and then operations commenced with what is known as the Belgian wells and extended for three or four miles Northwest from there through the McKittrick back into the Temblor Hills. There was practically a continuous proven field from the Southeast of Sunset to four or [**219**] five miles Northwest of McKittrick barring a slip that would be now from Fellows to McKittrick. That slip is now proven territory. At Sunset these developments were right at the beginning of the foothills. The Buena Vista Hills and the Elk Hills are a spur running out several miles from the main ridge of the country. In 1904 the development did not extend to the Buena Vista Hills but extended parallel to them and a little West of them. There was a long draw that separated the Elk Hills from the Buena Vista Hills and practically another draw or valley that separated the Buena

Vista Hills from the low hills that rose back from the back-bone of the ridge. There are two parallel valleys. There was some development East of McKittrick in July, 1904. This development was by the U. S. Oil Company and was two or three miles East of McKittrick. I think it was before 1904 but I am not positive. I would say that there were more than one hundred wells in July, 1904, in the district from Sunset on the South to McKittrick and Temblor on the North. I remember when the Southern Pacific Railroad was put into McKittrick. I had something to do with the proposition of putting it in there. The inducement that promoted the construction of the road was the prospect of a profitable traffic that was to come out of the production of asphalt and oil in that district. I think the road was put into McKittrick in 1893. At that time I was operating an asphaltum business in the vicinity of McKittrick. I interested the Southern Pacific Railroad Company people through Henry F. Williams, who was at that time residing in San Francisco but spent much time in Kern and who was selling town lots in Kern for the Pacific Improvement Company. I knew Mr. Williams to be on very close and cordial terms with the Railroad people and that is why I went to him. I took the matter up with the Railroad authorities, particularly Mr. A. N. Towne, the General Manager. I had a number of interviews with Mr. Towne and visited him several [**220**] times at San Francisco. I helped to organize the Standard Asphalt Company. I would say that the Standard Asphalt Company was one of the subsidiaries of the Southern Pacific Rail-

road Company as it was organized to acquire property that was to be conveyed in consideration of the building of that railroad. The first officers and directors of the Standard Asphalt Company, I think, were Mr. Towne, Mr. Dowtey, Mr. Williams, Mr. Jewett and myself, I think. One half of the stock was held by the directors of the Pacific Improvement Company. One half of the stock of the Standard Asphalt Company was owned by Mr. Jewett and myself and the other half by the Pacific Improvement Company representing the Southern Pacific Railroad Company. The railroad was put there in pursuance of these arrangements about the organization of the Standard Asphalt Company in the transferring of the stock and has been operated ever since. The right of way from Bakersfield to McKittrick was obtained by Mr. H. Williams and me. It was largely donated. There were a number of odd numbered sections which had been patented to the Southern Pacific Railroad Company crossed by this road from Bakersfield to McKittrick and I do not think any right was specifically obtained. The railroad owned the sections and there was no necessity for giving them what they already had. The interests of Jewett and Blodget were transferred to the Standard Asphalt Company in accordance with the agreement for the building of this railroad. At that time Jewett and Blodget had some leases of oil lands in the McKittrick field and some lands in fee in the Sunset field, all of which were conveyed to the Standard Asphalt Company pursuant to the arrangement. At that time we had extensive lease-hold interests at

McKittrick and also a great deal of land in Sunset. At that time we had shipped several hundred tons of Asphalt. Prior to that time it was a paying business. We had to transport a long distance by team from Sunset and McKittrick to Bakersfield and [**221**] it was very expensive but we had delivered a good deal of asphalt and we were satisfied that it would be a paying business and would justify the construction of a railroad which would furnish transportation. The future probabilities of that district or the country tributary to the Southern Pacific branch into McKittrick as an oil producing and oil shipping community figured largely in the inducements which lead to the putting of the road in there at that time. The portion of the road from Lokern to McKittrick was built to furnish transportation for the production of oil and asphalt from that McKittrick field. The probabilities of a great production of oil and shipment of oil in the future from that district was understood by the railroad officials as an inducement to get them to build a road through there as I had personally brought that matter to Mr. Towne's attention. I told Mr. Towne that the deposits of asphaltum in evidence in that district was a drop in the bucket only to the quantity of oil that was tanked underneath and that would be produced. In other words the visible evidence of tonnage was as nothing, practically, compared to what was underneath. Jewett and Blodget continued to hold their interests in the Standard Asphalt Company about three or four years. We then surrendered our stock in the Company and had conveyed to us the holdings

in the Sunset field, that is, the interests in the two fields were segregated. The Pacific Improvement Company acquired our stock. There was a considerable oil boom in Kern County in 1899 or 1900. The oil excitement was very general. I should say that excitement kept up three years or such a matter. It was shared in by the geologists and competent oil men and men of experience in oil formation. The excitement drew everybody into that district who was connected with the oil business or who expected to be connected with the oil business, and there was a great deal of activity in the McKittrick field. On account of the low price of oil it was not profitable to produce it under any circumstance and that was the reason of [222] the slacking up of the excitement. The lack of cars for transportation had also considerable to do with it as the two factors made the marketing of oil practically prohibitive. Oil could not be produced profitably and investors lost interest. That practically paralyzed that region and developments ceased. The Associated Oil Company had production in the McKittrick. I don't know what extent they had cars but they were transporting railroad oil and that took precedence over everything else. I know Mr. W. E. Youle. He was Superintendent for us for many years, principally at Sunset, also at McKittrick where he was in charge of the Standard Asphalt Company. He was a man of wide experience. We acted largely upon his advice. He made examinations of the country in general. We had Mr. Youle make an examination of the country in general and he reported on it and we instructed him to

assist and facilitate the making of our locations in the Elk Hills. He went out there as an experienced oil man or man familiar with oil, at our request. He had had a wide experience all over this state and in the East and it was particularly his experience on the coast that made his opinion valuable and we asked him to look at the Elk Hills country and give us his opinion as we had sufficient confidence in his ability and integrity to expend large sums of money on his advice as to the value of lands for oil. He reported that the Elk Hills showed indications of being oil bearing and that he believed we were justified in making the locations and endeavoring to acquire title. We made a hundred or two locations. I don't know the exact number. Associated with me in these locations were J. I. Wagy, Mr. Lamont, Mr. Jewett, Mr. Farnum, Mr. Packard. I think Mr. Youle's name was on some of these locations. I think the first of these locations were made on December 31, 1899. The locations covered a big stretch of country from the Elk Hills to the Buena Vista Hills. We kept up those locations for about six [**223**] years. We spent a good deal of money on these locations. At the time I became interested in these locations and during the time I continued to be interested in them I believed that the indications in the Elk Hills were good. The prospects were and that is all you ever "wild-cat" on—your belief or expectations. I have never had any reason to change my opinion. There has been some deep wells drilled in the Elk Hills. That was within the last two or three years. I don't know the exact location of them. There were some

successfully drilled by the Associated Oil Company at the North end of the same section of the country on some of the land we had originally located. I was interested in the purchase of some railroad lands in the West side in 1900 or 1901 possibly. We succeeded in purchasing five sections but were prevented from purchasing more by the withdrawal of the land from sale by the Railroad Company, who, acting under the advice and recommendation of their agent, Mr. J. B. Treadwell, had withdrawn any further land from sale in that field. I knew Mr. J .B. Treadwell quite well. He had told me that he represented the Railroad Company in the segregation of their oil lands and in the passing upon the probable oil bearing qualities of their lands. In 1902 we endeavored to sell the West side oil properties to the Southern Pacific Railroad Company. Mr. C. N. Beale and I went to New York on our way to London to see the representatives of some English and French capital about the purchase of the property. Mr. Beale was one of my associates and we stopped in New York and I went to see Mr. Harriman at the office of the Southern Pacific Company and he referred us to Mr. Kruttschnitt. We went fully into the matter with Mr. Kruttschnitt and showed him our maps and all the data which we had prepared. We discussed the matter generally with Mr. Harriman, the extent of the field, its desirability and so on. The interview lasted some time and then the matter was turned over to Mr. Kruttschnitt. We had three interviews with him. [**224**] I don't recall the specific details of the conversation with Mr. Harriman. We

were presenting our West side properties. They were very extensive and that involved a general discussion of the conditions on the West side, the character of the country and its value as an oil producing country. Everything relating to it to the best of my recollection was gone into. Mr. Harriman was a man who asked very incisive questions and it was presented by us with all the force that we possessed. I had not met him personally before that time. Then we were referred to Mr. Kruttschnitt, who went with us to our hotel where we had all the documents, maps and papers and we spent a couple of hours going through the thing very carefully in detail. I know Mr. W. S. Porter. I think he was President and General Manager of the Associated Oil Company. When I went to Mr. Harriman's office I met Mr. Porter, I think, in the outer office but not in the presence of Mr. Harriman. Mr. Porter did not take any part in the discussion I had with Mr, Harriman or Mr. Kruttschnitt. At that time he was connected with the Associated Oil Company. I have had over twenty years experience as an active operator in Kern County on the West side and during that time was familiar with the oil conditions and the oil business in that country. I know the plans that precede the formation of the Associated Oil Company as I was actively interested. In a general way, prior to the time I went East in 1902 to see Mr. Harriman and Mr. Kruttschnitt, I was familiar with the general operations and business of the Associated Oil Company and after my return I was familiar in the same general way with the conditions and operations of

the Associated Oil Company. When I returned there was a change in the general conduct and management of the affairs of the Associated. The Associated Oil Company at that time was delivering large quantities of crude oil to the Southern Pacific Railroad Company and the Southern Pacific Railroad—that is, the [225] Company's call for oil and facilities for transportation had precedence over that of all other purchasers and handlers of oil. Before I went East the Railroad Company was buying oil of all producers in all fields in Kern County. This change caused a lack of facilities for transportation, shortage of cars, and made it practically prohibitive for the shipment of oil out of the West side field and the river field for independent producers. The five sections that we purchased from the Southern Pacific Railroad before they withdrew the land under the advice of Mr. Treadwell, were sections 1, 11, 13 in Township 31 South, Range 22 East, and sections 7 and 19 in Township 31 South, Range 23 East. Deeds were procured from the Land Department of the Southern Pacific Railroad Company for four of these sections. The sections that we attempted to purchase at that time were Southeast of those that we purchased. I do not remember their number but they would be in Township 31 South, Range 23 East. We were not able to purchase or procure the title to these sections for the reason that I gave yesterday; they were withdrawn while our representative was in the office of the Southern Pacific Railroad Company. At the time that we became interested in those locations in

the Elk Hills it was the intention of my associates and myself to prospect that country and develop it for oil.

CROSS-EXAMINATION
OF
H. A. BLODGET.

By Mr. Lewers:

Q. Did you prospect and develop it for oil?

A. No. We did some road-building, and built a cabin and maintained—had a camp maintained there for some time, many months; but we never drilled.

Q. Did you ever make any discovery on any of your claims?

A. Nothing more than was developed by prospecting, that [**226**] is digging or excavating for roads and digging holes that would be developed for the matter of minerals like gypsum.

Q. Did you ever make any discovery of mineral in place anywhere on your locations, to your knowledge?

A. Well, not to my personal knowledge, because I didn't visit the hills at that time.

Q. You were quite generally interested in the oil business at that time, were you not?

A. I was.

Q. All over that country, practically?

A. No; not practically all over the country. I had interests, though, in McKittrick and in the Sunset field. It was principally in the Sunset field.

Q. And wherever you heard of discoveries of oil you became interested, did you not?

A. You mean financially interested, or took a personal interest in it?

Q. Personal interest, I mean.

A. I was interested to know what was going on; yes sir.

Q. And you visited a great many properties that you heard showed oil indication, did you not?

A. No; not a great many. I was familiar with the country from northwest of McKittrick clear down to Tejon Canyon, and in a general way, with the country from the valley over to the summit; but I never was up northwest.

Q. You have testified to quite a considerable oil development from Sunset up to McKittrick and beyond. That is in one general line, is it not?

A. In a general line; yes sir.

Q. It is down along the edge of the Temblor Range, is it not?

A. If you call it that; yes. It is the main ridge, range [227] of hills, through that country.

Q. It is quite close to the main ridge of hills?

A. Yes sir.

Q. Running northwest and southeast?

A. Along the flank of that range; yes sir.

Q. And from an early time you were familiar with many portions of that range, were you not?

A. I was familiar with portions of it; intimately familiar with some portions and only in a general way with the rest.

Q. Now, when was it that you employed W. E. Youle?

A. I think it was about 1891 or 1892.

Q. And where was he employed at that time by you?

A. He was employed by us in the Sunset field and at McKittrick.

Q. His duties carried him between those two places, did they not?

A. At times; yes sir.

Q. Did you at any time instruct him to investigate conditions in the surrounding country as to oil?

A. I did.

Q. That was one of his duties, was it not?

A. No, not generally; not as a—I take it that you mean that he had a sort of general commission to do that. That was not the case. We at certain times asked him to inspect certain localities. He did not have a general commission to be constantly on the look-out for land.

Q. Now, I understand that the firm of Jewett & Blodget placed a good deal of confidence in the opinion of Mr. Youle?

A. We had confidence in his judgment. He was a man of wide practical experience in the oil business. He did not claim to be a geologist, particularly.

Q. And when he reported favorably upon territory which you [**228**] had him examine, you acted upon his advice generally, did you not?

A. Well, I don't know that we acted upon it. We did in many instances, several instances. We valued his advice; accepted it.

Q. Did you not as a general rule follow his advice as to development?

A. Oh, I think so; yes. That covers a long range of a good many years and we were governed in our development by many things; but Mr. Youle's opinion we considered good, and his judgment good, and believed it better than our own in some of those particulars.

Q. And then you did very commonly follow Mr. Youle's advice in developing oil properties, did you?

A. Yes, and in locating.

Q. Development and locating?

A. Yes.

Q. Did you not, from time to time, locate oil properties which you did not develop?

A. Yes; we have located some that we haven't developed.

Q. Was that ever due to any advice upon that property given by Mr. Youle?

A. That we did not develop?

Q. Yes.

A. No; not that I recall.

Q. In no instance did you refrain from developing property by reason of anything that Mr. Youle had reported. Is that correct?

A. No. We had a long strip of territory that was on the strike, both sides, and we very early in our development work abandoned any idea of doing any development work to the west of the strike. [229]

Q. Was that due to any opinion advanced by Mr. Youle?

A. It probably was. It might have been. I don't recall particularly. I visited the field often and inspected the territory.

Q. Then in some instances, at least, you refrained from development work on the advice of Mr. Youle?

A. I don't know that we had any particular intention of development west of this break that I speak of in here. The locations of the wells were always discussed with Mr. Youle and his opinions considered, whatever they were, as advanced.

Q. Well, now, can you not give me a specific answer to this question: Did you ever refrain from developing any property by reason of advice given by Mr. Youle? That can be answered by yes or no.

A. Yes, if I could remember all the conversations, the times that I have asked his advice in that length of time. I would not want to reply to that question except generally. We generally followed his advice in regard to the location of wells, which would be the development work that you speak of.

Q. Did you ever follow your own inclinations without regard to Mr. Youle's advice in any instance where you refrained from developing property that you had located?

A. As I said a moment ago, I would feel unwilling to answer that question except in a general way. Mr. Youle was always consulted by me with regard to the location of wells and the plan of the development work, and I then had and still have a high regard for his judgment. I had no practical knowledge myself except what I had acquired in that field, and my recollection is that I followed his advice usually.

Q. Then it is a fact, Mr. Blodget, that you generally followed the advice of Mr. Youle, either as to the development or as to the non-development of any particular piece of [230] property? Is that correct?

A. Well, it wouldn't be conclusive, at all; no. I might have concluded to do things without—that is, in the acquisition of claims, without consulting him at all. Where his advice would be valued would be in regard to the location of wells, or the details; not necessarily as to policy.

Q. Well now, which is the fact? That you did generally follow his advise?

A. That is what I said.

Q. Or that you didn't?

A. I said that in the location of wells we followed his advice largely.

Q. Well now, did you follow his advice generally in refraining from developing property which you had located?

A. Well, as I say, our policy in the development of that property was the result of several factors, and—

Q. Can't you give me a specific answer?

A. "Yes" or "No"? Why, do you know that that territory is 25 miles, and covers all kinds of property—that is, all kinds of surface conditions and all sorts of conditions, and I saw Mr. Youle often through many years and I can't recall the details of those conferences or the reasons at that time for any particular policy or any particular specific action.

We were developing in the Sunset a strip of country about seven miles long.

Now, the question, Mr. Blodget, is this, if you will pay attention to it.

A. I will pay attention to it.

Q. Is it not the fact that you generally—I don't mean universally, but generally—followed the advice of Mr. Youle wherever you refrained from developing any property that you had under location?

[231]

Mr. Mills—I object to the question, because the record shows it has been answered by the witness at least four different times, that he followed it in a general way.

Q. By Mr. Lewers—I want specific answers to my questions.

A. Do you mean that we asked Mr. Youle whether or not we should refrain from developing any particular property?

Q. Will you read the question to the witness, Mr. Longley. (The question: "Is it not the fact that you generally—I don't mean universally, but generally—followed the advice of Mr. Youle wherever you refrained from developing any property that you had under location?" was read by the reporter.)

A. I will just answer that question this way, that where we did do any development we generally followed Mr. Youle's advice; followed it largely. When we refrained from developing property we might refrain from many reasons.

Q. Then you didn't generally refrain from devel-

oping property by reason of Mr. Youle's advice? Is that correct?

A. Read that question, please. (Question read by the reporter.) "Generally refrain"? No; I don't know that we asked Mr. Youle's advice when we concluded we would refrain from developing any territory. We consulted Mr. Youle generally and frequently in regard to the carrying on of the work, the location of wells, and everything connected with the development work. The policy of our development was something entirely apart from Mr. Youle's province.

Q. That was something entirely apart from Mr. Youle's province?

A. Our policy as to whether we would develop or not develop; yes.

Q. When did you first go into the Elk Hills?

A. Into the Elk Hills, probably in I think the spring [**232**] of 1908.

Q. That was the first time you were ever in there?

A. The first time I was ever in the Elk Hills; yes sir.

Q. And you don't remember, of your own knowledge, anything about what was known in the Elk Hills or what was in the Elk Hills prior to that time, do you? Of your own knowledge?

A. What was in it?

Q. Yes.

A. I hadn't been in them; no. I had been around them, all around them, completely around them.

Q. These locations you have spoken of as being

over there, in which your name appeared, were locations that were not made by yourself personally?

A. They were not.

Q. You had nothing to do with the determination of where those locations were to be, did you?

A. I did; yes sir.

Q. What did you have to do?

A. I agreed with my associates exactly where they would be; made the selection from the map as to the country we wanted to locate.

Q. You made the selection from the map?

A. Yes sir.

Q. Not from the ground?

A. No sir.

Q. You know of no discovery of oil on any one of those sections during the time you held them, do you?

A. No.

Q. And did you ever get any returns in the way of profit from any of those locations on that ground while you held them?

A. You mean in excess of cost?

Q. Yes. [**233**]

A. Or any returns? We sold one of our locations, that is, the location on one section.

Q. I don't mean sales of the locations. I mean profit.

A. Profit from the operation of the property?

Q. Yes.

A. No.

Q. Not one cent?

A. No.

Q. And you held part of them for a period of about six years, did you?

A. I did.

Q. Now, at that time you were in touch with a great many men who had capital, were you not?

A. Yes sir. More or less, yes.

Q. That is, from the time you first went into that territory you were in a position to interest men who had money, were you not?

A. Well, anybody was in a position to interest men with money if he has anything that is interesting to offer. I didn't hold the edge over anybody else in that particular that I know of.

Q. Were you not associated in business with many men who had ample capital?

A. Yes; I had an ordinary acquaintance with men who had capital.

Q. Were you not associated in a business way with them?

A. Not with any who were in the oil business.

Q. That is not the question. Were you not associated in a business way with many men who had ample capital?

A. No, not many.

Q. You were with some, were you not?

A. Well, I was associated in a business way with some wealthy men; yes. [234]

Q. You spoke of making a trip to New York with Mr. W. H. Beale, was it not?

A. Not W. H.; Mr. C. N.

Q. Now, Mr. C. N. Beale was the personal representative of whom?

A. The personal representative of himself.

Q. And no one else?

A. No sir; not that I know of.

Q. Did he at that time—

A. Oh, he at that time was connected with some—with the Kern County Land Company people in Bakersfield.

Q. Was he acquainted in any way with Mr. Tevis?

A. He was connected with W. S. Tevis; yes sir.

Q. Mr. W. S. Tevis was a man who had ample capital, was he not?

A. He was a man of large capital.

Q. At that time, I understood you to say on your direct examination, you were connected with a bank in Bakersfield?

A. At that time I was a director of a bank.

Q. Which bank was that?

A. Kern Valley Bank.

Q. And Mr. Tevis was also connected with that bank, was he not?

A. He was not.

Q. Never has been?

A. Never.

Q. Is that bank running now?

A. No sir.

Q. When did it close?

A. Some time in 1911; May, I think.

Q. Was Mr. Beale in any way connected with that bank?

A. Never. [235]

Q. He was not at the time of its closing?

A. No sir; had no connection whatever.

Q. Well, now, did you, through your connection with that bank, become associated in a business way with any other men who had capital and plenty of it?

A. No sir; not that I know of.

Q. Not that you know of?

A. No.

Q. And were there any other men of capital interested with you anywhere in the oil deals?

A. Nobody interested with me except Mr. Jewett that I spoke of and my associates in these locations, in the purchase of these sections that I spoke of.

Q. Now, did any of your associates in the purchase of these sections have means of their own?

A. Not large; no.

Q. And you say that you endeavored to purchase certain land in 1901 or 1900? Is that correct?

A. Buying railroad lands, yes, in 1900 or 1901. About that time. I didn't look up the dates.

Q. And you did purchase Sections 1, 11 and 13 in Township 31-22?

A. Yes sir.

Q. From whom did you make that purchase?

A. The Southern Pacific Railroad Company.

Q. From what representative of that Railroad Company?

A. The Land Department, Jerome Madden.

Q. From Jerome Madden?

A. I think so.

Q. You didn't make that purchase from Mr. Treadwell?

A. No sir.

Q. Or from Mr. Owen? [**236**]

A. No sir.

Q. But you made that from Jerome Madden?

A. I didn't make it personally. Mr. Packard, who transacted the business, made the purchase; but it was for himself, myself and our associates. There were four interested.

Q. And you say that you attempted to purchase other land but didn't succeed?

A. That is right. Yes sir.

Q. That was land that had already been patented to the railroad company, was it not?

A. Yes sir.

Q. Did you ever attempt to make a purchase of any lands in the Elk Hills?

A. No sir.

Q. Now, I understand you to say that in 1900 or 1901 there was quite a considerable oil excitement?

A. Yes; 1900 and 1901.

Q. How long did it continue?

A. It continued, I think into the spring of 1902.

Q. No longer?

A. Well, no longer, I think, than the summer of 1902, at that time.

Q. You have heard the testimony of other witnesses here that it continued for two or three years?

A. I know it. I think I heard one witness testify to that. That was correct.

Q. It did continue two or three years?

A. It commenced in 1899 and continued until 1901. That would be two or three years. 1902.

Q. It commenced in 1899, then?

A. Yes sir.

Q. And during that time a great many men came into that [237] country?

A. Yes sir.

Q. Including many competent oil men?

A. I presume they considered themselves such.

Q. Well, how did you consider them?

A. Well, they were men who had—wherever they were men who had practical experience in the oil business I considered them competent men.

Q. Did you not testify in direct examination that many competent oil men came in during that excitement?

A. I might have done so. There were a good many competent oil men—as competent as men in those days.

Q. There were a great many men came in who knew nothing whatever about oil, were there not?

A. Yes sir.

Q. And locations were made on a great deal of territory that you regarded as of no value? Is not that correct?

A. Well, I don't know anything about the scope of the locations and I don't know that I ever stopped to consider where they were locations made on land that I thought at that time were lands of no value.

Q. Do you mean to say that you were in there,

interested in the oil business, during that excitement, and didn't take into consideration where these locations were made by different individuals?

A. Oh, they were made by hundreds every day. The records were just overwhelmed with them. And I might have noticed them in a general way, but I didn't take the trouble to figure out these particular locations. As I said a moment ago, there were many locations made, as I remember them now, on lands that I didn't think were oil-bearing.

Q. Well now, wasn't it a matter of considerable comment [**238**] that these men who knew nothing about oil came in and located the whole country?

A. Well, they located the country pretty generally from Tejon Canyon to the north line of the country, from Tejon Canyon to Devil's Den—plastered with locations.

Q. Good, bad and indifferent land was located? Was not that a fact?

A. It depended, I suppose, on the fancy of the locator.

Q. And not upon his expert knowledge?

A. He might have thought he had expert knowledge. I don't know. I didn't talk with those men or have any idea what their—that is, you speak about all the locators. I had no acquaintance with them and no conversation with them, and no idea what their ideas were.

Q. And was it not the fact that in many places there were two, three, four and five locations one on top of the other?

A. I don't know. The records would show that.

Q. Well, don't you know that to be the fact?

A. You say "one, two, three, four, five." No; I don't know that I do. There were many instances where locations lapped. I think some of my knowledge; but I don't know how many. That is a matter that the records would disclose.

Q. And were there not numerous locations upon which no development at all was done?

A. There were locations on much land on which no development work was done; yes sir. That was the custom at that time.

Q. And you yourself were interested in certain locations upon which you did no development work at all?

A. No. Up until the decision of the court that the assessment work was valueless and did not in any way tend to preserve title to the claim, we always did our assessment work [**239**] on the claims I was interested in.

Q. You say "the decision of the court that assessment work was valueless."

A. In effect.

Q. Wasn't the decision to which you refer one that you must have a discovery before you can have a valid claim?

A. No; I don't know that that was exactly the case. We made some locations at a very early day, and at that time they were made under the placer mining laws and the custom and the general understanding was that if you did your annual assessment work of $100 you would hold the claim.

Q. Even though you had no discovery?

A. Well, that was a point that was adjudicated later. The general custom was, the belief was—well, the general custom through the country—that if you did your assessment work you hold the claim. Until that was adjudicated, that was the belief.

Q. Now, referring to those claims you were interested in over in the Elk Hills, did you do your assessment work?

A. Not on all the claims. We did some considerble assessment work.

Q. And you relocated, didn't you?

A. We did.

Q. Several times?

A. Yes sir.

Q. That relocation was made in each instance because the assessment work hadn't been done, wasn't it?

A. Well, not necessarily. It was done because the location was supposed to be color of title, or prima facie title—possession—and it was with a view of retaining the claims until such time as conditions would justify developing them.

Q. Well, wasn't it regarded by you as necessary to relocate because you had not done your assessment work? [240]

A. Well, that might have been a reason for it.

Q. That was the reason, wasn't it?

A. That was one reason; yes.

Q. Wasn't that the chief and only reason?

A. Well, if we didn't do the assessment work we

were compelled to relocate on our claim or our claim was not valid under the mining laws.

Q. That is the reason you relocated?

A. Yes sir.

Q. And at the time when you relocated, in each instance, you had as yet made no discovery of oil?

A. No.

Q. And never did make one?

A. No.

Q. And at the time when you first located, and on those subsequent times, you didn't know that there was any oil there, did you?

A. No.

Q. And never did know.

A. No.

Q. And don't know it now?

A. Yes; we know, wherever there has been development that has found oil—we know now.

Q. I am referring to the Elk Hills.

A. No. You are referring, I presume—that is, I am referring to the land that was covered by our locations.

Q. In the Elk Hills?

A. In the Elk Hills. At that time it covered the Elk Hills, as I testified yesterday, and the Buena Vista Hills and down into the valley, the flat, on the east side. It covered a wide area.

Q. Now, is it not a fact that you and your associates [241] made many locations during that oil excitement without the intention at all of developing them but for the purpose of speculating and selling the land?

A. No. As far as we were concerned, we made no locations on the West side that we didn't retain and do assessment work.

Q. I am referring to those.

A. Well, then, I have answered the question. The question was, did we not make locations without any intention of developing. That was not so. We did intend to develop all we located.

Q. You did intend to develop those that you located in the Elk Hills?

A. That was the general intention. As far as I was concerned, it was my intention to develop them. We could not dispose of them otherwise.

Q. Why didn't you develop them?

A. The conditions of the oil business were such that it would have been ridiculous to have spent any money during that entire period.

Q. During what period?

A. The period extending from 1902 to 1905 or 1906.

Q. Then, did you, during that period, between 1902 and 1905 and '06, totally abandon all development on all of your property?

A. No; we retained possession, as I tell you. We kept a man there awhile—I don't remember just how long—and maintained our locations, renewed our locations, held color of title.

Q. That is not the question. Did you cease, absolutely, all development on all of your properties everywhere during that period?

A. Doing development work? Practically, yes.

Wait a [242] moment. We operated our producing wells in the Sunset field, and we did some development work in 1903 and 1904—1903—and then we didn't commence again until 1907.

Q. Then, during 1902 and '03, you did actual development work on some of your properties?

A. Yes.

Q. Why didn't you on the properties in the Elk Hills during that same period?

A. Well, because in the Jewett & Blodget interests we only had a small interest, proportionately, and we were developing our own property, where we had facilities for handling the oil to a limited extent.

Q. Was that your sole reason for not developing that property in the Elk Hills?

A. That was—The reasons for not developing the property in the Elk Hills was that there was no market for oil. The price was so low that if you had had a thousand barrels a day in the Elk Hills you could not have transported it, it wouldn't be worth a cent. And, as far as I am personally concerned, the only development work that we could afford to do was on our own property that we owned exclusively.

Q. Then the reasons you have given are the sole reasons for not developing that property in the Elk Hills?

A. I consider those were reasons enough—that the oil had no value.

Q. Did you have any oil there?

A. In the Elk Hills?

Q. To your knowledge?

A. You asked about the development of oil. I answer that we got no oil in the Elk Hills.

Q. Well, was not the fact that you had found no oil in the Elk Hills, and that you didn't know whether you ever would find [**243**] any, the reason why you didn't develop those properties?

A. You don't suppose we expected to find it running out of the ground, do you? It costs money to find oil in any oil territory.

Q. Will you kindly answer my question.

Mr. Mills—I submit he has made a sufficient answer.

Mr. Lewers—Please read the question, Mr. Longley.

(Last question read by the reporter.)

A. No.

Q. That had nothing to do with it? Is that correct?

A. Well, I don't know how I can answer it more fully than I have. To find oil in the Elk Hills or in any other oil territory requires an expenditure of money and the perfection of an organization and a large amount of equipment, and all that, and the market conditions and the physical conditions at that time were such that there was no justification for doing anything of the kind. We didn't make any attempt to find oil in Elk Hills by drilling—the only way it could be found. The reason we didn't do that was because oil had no value. If we had had a thousand barrels a day, as I stated, in the Elk Hills, it wouldn't have been worth a nickel.

Q. And yet, Mr. Blodget, you continued to develop properties elsewhere where oil was not worth one cent more than it would have been in the Elk Hills?

A. Well, the only development we did was right along side the railroad track, that would give it a little more value—not much—than if it was in the Elk Hills, under the conditions that existed—that is, a little more value under the conditions that existed at the time you mention, 1902 and '03—than if it was in the Elk Hills, but it did have a little percentage.

Q. Did the fact that your land in the Elk Hills was further west from the main ridge have any bearing whatever on [**244**] your refraining from developing?

A. No. The fact was that it was east, and in exactly the right direction.

Q. I mean east. And in exactly the right direction?

A. Yes.

Q. Then you regarded it as more valuable than the land near McKittrick because it was further east, did you?

A. I regarded it more valuable than any land lying west of the strike or the outcrop.

Q. That is not the question. You have testified that you had an interest in numerous wells lying to the east of the main range and close to it, right along it?

A. Well.

Q. Did you, in 1900, and up to 1905, not regard

the territory lying right along the foot of the main range as more valuable for oil than territory farther east?

A. I would have considered the prospects for getting oil there better; yes sir.

Q. Very much better, would you not think?

A. Closer to the outcrop; yes sir.

Q. And was not that one reason why you continued your development, during the depression, close to the outcrop, and refrained from doing so to the east thereof in the Elk Hills?

A. No sir.

Q. That had nothing to do with it?

A. Not at that time; no sir.

Q. Then you at that time had no reason in your own mind to prefer the territory for development purposes near the main ridge over that in the Elk Hills?

A. No reason?

Q. Yes.

A. Yes; several reasons. [**245**]

Q. What was it?

A. The reasons for preferring the territory lying nearer the ridge was that it was more—we would consider it more certain, and all the development was done by the concern with which I was connected was done right beside the railroad, with transportation facilities.

Q. Then you regarded that near the ridge as more certain than that lying over in the Elk Hills?

Mr. Mills—I object to that question. The record shows that the witness just answered the question.

A. Yes. Near the outcrop, we would call it, near the strike, the strike of the outcrop I would consider more certain.

Q. By Mr. Lewers—And then, to some extent at least, you regarded the discovery of oil in the Elk Hills as uncertain?

A. I would not consider the discovery of oil at any particular point certain in an untried field.

Q. Did you not consider the discovery of oil in the Elk Hills at that time as far more problematical than that near the ridge?

A. That would depend upon how close to the ridge. I would consider it more problematical to find oil at a distance from a known development than closer, sure.

Q. And did not that distance and the greater uncertainty as to the discovery of any oil at all in the Elk Hills have some influence on your refraining from doing development work?

A. At that time?

Q. Yes.

A. No sir. [246]

Q. None whatever?

A. No sir.

Q. Did you not ordinarily, in determining whether you should carry on development work, on any of your properties, take into consideration, as a very important factor, the probabilities of discovering oil?

A. I did.

Q. And did you not, as a rule, direct your devel-

opment work toward those points where you regarded the discovery of oil as more certain than at other points?

A. We did; yes sir. The obtaining of oil. This was not a discovery. The development of a known field is very different from operating or prospecting in an unknown field. I would answer your question, Yes.

Q. You then regarded the Elk Hills as a totally unknown field?

A. It was unknown; yes sir.

Q. Now, in what territory did this depression in the price of oil exist?

A. On the Pacific Coast.

Q. Was it due, in all of these territories, to the Associated Oil Company having cars furnished it by the Southern Pacific Company?

A. No. I would think not.

Q. It was a natural economic condition at that time, was it not?

A. It was brought about by the alleged over-production of oil and the lack of transportation facilities.

Q. Is it not a fact, Mr. Blodget, that, beginning along in 1899 and extending up two or three years after that, there was a vast and sudden increase in the production of oil in California?

A. There was; a very large increase. [247]

Q. And the production, for the time-being, outstripped the means of making use of it, did it not?

A. Yes. There was a supposed, or alleged, as I say, surplus of oil, excess of production.

Q. That is, conditions had not had time to adjust themselves to the increased production? Is not that the fact?

A. The market had not responded in proportion to the development of oil.

Q. And you would not attribute that entirely, then to the shortage of cars?

A. Attribute what?

Q. The depression in the price of oil.

A. No; I would not attribute it entirely to the shortage of cars. No.

Q. The shortage of cars was simply one symptom of a very general condition of lack of ability to handle the increased production, wasn't it?

A. I think it was a symptom of a desire not to furnish the facilities. I don't know that it was inability to furnish the facilities.

Q. Mr. Lewers—I move that the answer be stricken out, as not responsive. Read the question again, Mr. Longley. (Last question read by the reporter.)

The Witness—Read the answer, please. (Last answer read by the reporter.) I can't modify that answer, from my knowledge of the conditions.

Q. By Mr. Lewers—Mr. Blodget, if you will pay attention to the question—

A. I have,

Q. —I think you can answer it. Was not the shortage of cars, whatever it may have been, due to

one symptom of a very general condition of inability to handle the increased pro- **[248]** duction of oil?

A. "Handle" by whom?

Q. Everybody.

A. You mean the producer or the carrier?

Q. The ultimate disposition and consumption.

A. It was a symptom of the inability of the producer, yes; of the carrier, no.

Q. The carrier, at that time, even though the production of oil increased, as you have stated, very suddenly and greatly, had merely to issue the order and tank-cars would be forthcoming in any conceivable quantity? Is that correct?

A. Is that your statement, or is it a question?

Q. That is a question.

A. I don't know what the ability of the railroad companies was to purchase tank-cars here. They were purchasing tank-cars at that time. Whether they purchased all they could or not would be another matter.

Q. Isn't it a fact that beginning at that time the purchase of tank-cars, not only on the Southern Pacific but the Santa Fe, increased quite rapidly?

A. Yes; quite rapidly.

Q. And isn't it also a fact that many independent producers of oil themselves purchased tank-cars?

A. I don't know of but one.

Q. The Associated?

A. Well, the Associated just painted the letters "S. P." out and put "A. O. Company" on. Our friend Captain Bunting purchased some cars.

Q. You have no feeling in this matter?

A. Not at all.

Q. Not a bit?

A. I am just stating facts. That is all. [249]

Q. You know that the Associated merely went out and wherever they found a car marked "S. P." they painted out the "S. P." and put the "Associated" on?

A. No. That was done in the S. P. Yards at Kern City.

Q. You know that of your own knowledge?

A. I do.

Q. And wherever they found a car in the S. P. yards of Kern City they painted out the "S. P." and put the "Associated" on?

A. No; the S. P. did it. The Associated probably didn't do it.

Q. You swore just a moment ago that the Associated did that, didn't you?

A. Well, I said "they," and when I used the word "they," I thought that would be—We were speaking about the ability of the railroad company to produce cars. Of course I have got quite an intimate knowledge of the conditions that existed at that time in Kern county.

Q. In other words, you made a statement unguardedly that you didn't know to be true?

A. No; I said "they." It was done by the Southern Pacific. The Southern Pacific painted off the "S. P." letters and put "A. O." on them. I didn't

see the painter that did it. I suppose he did it at the "S. P." instructions; but that was done.

Q. And you don't know, of your own knowledge, whether or not those cars were purchased by the Associated Company or not, do you?

A. I do not. No.

Q. And you don't know, of your own knowledge, whether or not those cars were originally bought by the Associated Company, do you?

A. I know that the authorities at Bakersfield stated that **[250]** they had a large number of cars coming, which, when they arrived, would be available for the use of independent producers, of which we were one, and that when they did come they were put into the Associated service. I know that.

Q. Will you kindly answer my question?

A. I will try to. What was it? (Last question read by the reporter) No; I don't know that.

Q. So, what you are stating is based upon hearsay?

A. Statements made to me by the officials of the company. I could not get it any other way.

Q. And whether or not those officials had any definite knowledge of the actual ownership or title, you don't know, do you?

A. I don't know to what extent they had knowledge; no sir.

Q. And yet you are willing, under oath, to state as a fact matters that you heard, without knowing whether they are true or not.

A. Mr. Mills—The government objects to that

question, because the witness has stated that he got his information from the officials of the railroad company.

Q. Mr. Lewers—The latter part of which objection will of course be available to the witness?

A. The statement that I made is a statement of the information that I got from the officials of the road, in regard to the cars. And as to the fact of the transfer of the cars, that I knew personally—that is, the changing of the lettering.

Q. And, based upon that information, you made your statement a few moments ago that the Associated went in and painted out "S. P." on the cars.

A. I didn't say so. I used the word "they." We had been talking about the transportation companies. The Associated, so far as I know, didn't paint any of the cars. I presume the S. P. [251] Railroad Company painted them.

Q. And you say that the Southern Pacific was using oil for fuel on its engines during that period?

A. Well, I didn't run an engine. I say, Yes. That would probably be general repute and hearsay; but it was using oil on its engines.

Q. You observed the engines shipped for the use of oil, did you not?

A. Tanks; yes. I have never been in a locomotive. I don't know how they are fitted.

Q. And it was commonly understood, was it not, and known by you, that the Southern Pacific Company was developing oil properties for the purpose of getting fuel for its own use?

A. Well, at that time I didn't know. I think that was before it did any active—I don't know what time it commenced active development, the K. T. & O. The Associated was actively developing for oil which, by common repute and the statement of the railroad people, was being used by the railroad engines.

Q. For fuel?

A. Yes sir.

Q. Now, you say that the depression in the price of oil existed all over the California oil fields?

A. It was general; yes sir.

Q. Now, was there any depression in the price of oil at points of consumption, during that period?

A. Yes, I think so; a very considerable depression.

Q. A very considerable depression?

A. I think so.

Q. Did the Associated Oil Company get any better prices for its oil than anybody else?

A. Not to my knowledge. I don't know what prices they got. [252]

Q. And you never heard they got any better prices, did you?

A. I never asked anything about it. Let me see. I don't know that they got any better prices than anybody else. They were able to deliver as nobody else was able to deliver oil.

Q. Nobody else was able to deliver any oil?

A. Practically not, by cars; no—that is, to deliver with any certainty. That is, the uncertainty

as to cars was such as to preclude any assurance, any certainty, of being able to deliver.

Q. And did the Associated have an absolute certainty of getting sufficient cars to deliver its oil?

A. I don't know to what extent it could get cars. Of course they had an absolute certainty of getting all the cars it wanted to deliver railroad oil.

Q. That is, the railroad was getting its oil for fuel?

A. Yes. That is, it had a certainty of getting cars to deliver railroad oil.

Q. By "railroad oil," you mean fuel oil for the railroad?

A. Oil for the railroad, yes; for use.

Q. Now, you don't mean to say that the railroad absolutely prevented any shipper, except the Associated Oil Company, from shipping oil by cars, do you?

A. Oh, no. No; they simply asserted they didn't have the cars. They didn't present them.

Q. What do you mean by "present?"

A. They simply didn't furnish the cars—stated they could not.

Q. And the railroad, during that period—not only the Southern Pacific, but also the Santa Fe line—began to increase the number of tank-cars for oil, did they not.

A. They did.

Q. And that increase continued, did it not? [253]

A. I don't know how long.

Q. Wasn't the number of tank-cars in use upon

the railroad lines in California vastly increased during the period between 1900 and 1905?

A. It was largely increased. I have no means of knowing how largely. Very largely increased, to my knowledge.

Q. And did not that increase permit the independent oil shippers to get their oil to market?

A. No.

Q. It didn't?

A. It permitted it to an increaseed extent, perhaps, but not to a sufficient extent.

Q. Then, have they ever been able to get their oil to market to a sufficient extent?

A. Well, I got tired of trying, after 1906 and '7—after 1907. I don't know what the condition has been since then.

Q. Then, since you quit you don't know what the conditions are?

A. I don't know what the condition would be at the present time, as to cars. Of course a large proportion of the oil is transported by pipe-line out of the fields. I don't know to what extent shippers rely upon cars. As I said, I got tired; I could not get them.

Q. There were no pipe-lines in 1901 and '02, were there?

A. No; I think not. The first pipe-line was out of the river field. I don't remember when that was built, exactly.

Q. Was there anything to prevent the construction of pipe-lines at that time?

A. No; I think not. Not that I know of.

Q. Now, on this occasion when you went back to New York with Mr. Beale, you say you met Mr. Harriman in his office in New York? [254]

A. Yes sir.

Q. And you saw Mr. Porter, who was connected with the Associated Oil Company, sitting in Mr. Harriman's outer office?

A. I think so. It was in the office. It was right in the adjoining office, I think.

Q. I suppose that fact seemed to you full of importance, didn't it?

A. Not at that time. It did later, though.

Q. And if you had happened to see some other individual sitting in the outer office of Mr. Harriman, you would have at once concluded, would you, that there was a conspiracy between that individual and Mr. Harriman to depress the price of oil in California?

A. No. No; I just knew Mr. Porter. His visit there had no meaning to me at that time.

Q. You, also, appeared in Mr. Harriman's outer office the same day, didn't you?

A. Yes.

Q. And you say you tried to sell all of your West End properties to Mr. Harriman?

A. Yes sir.

Q. You didn't succeed?

A. No sir.

Q. And, although Mr. Kruttschnitt went into the matter very fully with you and you explained the

situation as enthusiastically as you felt the facts warranted, nevertheless they would not purchase?

A. I didn't say "enthusiastically." I mentioned it; I made a full explanation to Mr. Kruttschnitt, answered all his questions, and made the fullest showing that we could.

Q. And yet they didn't buy?

A. They didn't. **[255]**

Q. Now, I understand you to testify that the Associated people delivered large amounts of oil to the Southern Pacific Railway Company. Is that the fact?

A. Well, you would probably say that was hearsay. I was so told by the railroad officials at Bakersfield.

Q. Did any railroad official ever tell you that they delivered a single tank-car of oil to the Southern Pacific Railroad Company?

A. Why, yes. The train dispatcher used to tell me daily the number of cars that had to go for the company.

Q. Which company?

A. Southern Pacific Railroad Company.

Q. You are sure it was not the Southern Pacific Company?

A. Well, I understood the "Railroad." He said "Company oil, railroad oil."

Q. That is what he said?

A. Yes.

Q. Then he didn't say "Southern Pacific Railroad Company" oil?

A. No; I don't know that he did. Of course there was no occasion for him to say. It was Southern Pacific Railroad—it was oil for use on the railroad.

Q. Then why did you testify that it was delivered to the Southern Pacific Railroad Company, so carefully?

A. Well, it was delivered to the railroad company, and it was the Southern Pacific, Southern Pacific's railroad.

Q. That is the way in which you reached your conclusion, from that method of reasoning, is it?

A. Why, yes. I had no other.

Q. It was delivered to the company which was operating the road, wasn't it, so far as you know?

A. So far as I know; yes sir. **[256]**

Q. And you don't know what company was operating the road, do you?

A. Well, I have a vague idea the Southern Pacific Railroad Company; but I don't know that the Southern Pacific Railroad Company has any railroad. If they haven't any, I don't know. That is, the Southern Pacific Railroad was very much in evidence. I supposed it was the Southern Pacific Railroad Company.

Q. That is, your idea is a vague one, as you said?

A. No. The Railroad Company, I said, was very much in evidence, and there never was any misapprehension or misunderstanding when the Southern Pacific Railroad Company matters were discussed between people, that I know of.

Q. No misapprehension at all?

A. Not that I know of. I never had any doubt, and I was discussing with the Southern Pacific Railroad Company's employees and officials matters that affected the road, and I didn't have any doubt about it; never thought there was any question raised.

Q. Where were you living in 1904?

A. Bakersfield.

Q. And what papers did you subscribe for?

A. I subscribed for the local papers.

Q. Which ones?

A. I think both of them.

Q. Did you take the Echo?

A. I took it; yes sir.

Q. And you were a subscriber, were you?

A. Yes sir.

Q. And in 1904 you still retained your interests in the locations in the Elk Hills, didn't you?

A. We had them; yes sir.

Q. And you were interested in the oil situation generally, [257] in that you read items concerning it, I suppose?

A. I looked through the paper generally, yes; but in a very casual way. I looked through the papers more or less all the time. I might not see every one, or all that was in it. I don't read the advertisements, usually.

Q. You were at that time more or less familiar with the townships and sections throughout the country surrounding McKittrick, were you not?

A. Oh, yes, in a general way. Of course if I was interested in any particular description I could eas-

ily look at a map. A newspaper description is not very accurate, as a general thing. Very rarely they are right.

Q. That is, a description in a newspaper item, you mean?

A. Yes; in the items that are given of development work, for instance, and that sort of thing, they are generally inaccurate.

Q. But if you saw an item that referred to the township and section, or quarter-section, in a country that you were familiar with, you would be able to place it, from your knowledge of the topography of the country, wouldn't you?

A. In a general way, yes sir. When I heard a township and range mentioned, I would know instantly what the country was. My knowledge of the country was sufficient to enable me to remember them.

Q. You never filed any protest against the application of the Southern Pacific Railroad Company for this land in 30-23, did you?

A. No sir.

Q. Although you were a subscriber to the Bakersfield Echo during 1904?

A. I was a subscriber, I presume. I don't know. I have taken the paper steadily right along. **[258]**

Q. Did you try to sell Mr. Harriman any land in the Elk Hills?

A. No sir.

Q. The land that you offered at that time didn't include your interest in the Elk Hills?

A. No sir.

Q. He might have purchased, if you had offered him that, might he not?

A. I don't know, I am sure. It didn't occur to me.

Q. You offered everything else you had in the West End, though, didn't you?

A. No, not entirely; no.

Q. What portion did you omit?

A. There were some small interests in the McKittrick field.

Q. But everything else you offered?

A. We offered the Sunset, yes. In the McKittrick field, we had some interests there.

Mr. Lewers—That is all. **[259]**

JAMES F. MC CAY, witness called and sworn on behalf of the plaintiff, testified as follows:

DIRECT EXAMINATION.

I am 53 years of age, and reside two miles North of Fellows, upon the Pioneer Midway. I am a driller, and have followed that occupation and never done anything else since I was a boy, but the oil business. I have drilled since I was old enough to start drilling. I am now employed as a driller by the Associated Oil Company. I have been in their employ pretty nearly seven years; that is, the Amalgamated and different companies—all associated, I suppose; been under one management. I have been drilling, continuously, oil wells for 25 or 30 years. It is a part of my present occupation to go to and remedy any troubles with the wells belonging to the

Associated Oil Co., wherever they send me; that is to a certain extent expert work.

I know the Associated Oil Co. is operating in what is known as the "Elk Hills" East of McKittrick at the present time, and that that company has brought in wells which are producers in that country. I should judge the first well that produced was brought in about 9 or 10 months ago; something like that; nearly a year. I am not thoroughly conversant with the sections, from what they tell me that well was on Sec. 26, T. 30, R. 23. I saw that well; it was drilled with a rotary drill. I did not see the well at the time it was brought in. They had done some more work afterwards on it before I saw it last. They did some work after I had seen it, but it was flowing some oil at the time I saw it. I could not say how long it was before I saw it that it started because at the first time I saw it I went there to do some work on it, and at intervals of every 20 or 30 minutes or half an hour, it would flow some oil. It might have been four or five months; something like that; three or four months; I don't just recollect the time which had intervened between the time I saw it and the time I afterwards found it producing. I was not there when it was **[260]** put on the pump. Shortly afterwards I just passed it, but did not pay much attention to it. I could not say what the production of the well was per day at the time I was there, for I never took measurements of this well on 26. I did take measurements of a well belonging to the Associated Oil Co., in the Elk Hills on

Sec. 30. I think it was in T. 30, R. 24. It was east of the well I have first referred to. I was there when the pump was first put on that well, and measured the oil flowing from it when I was there. We had been working with it. I had charge of the well, at the time, perforating it and getting it to produce and I had probably been over there maybe four or five weeks working with it, bailing it, before we put in the pump. We put in the pump and it had been pumping, I think, a couple of days when I took a gauge of it. Pretty near 800 feet of the casing was perforated I believe, at depths of somewhere in the neighborhood of 3600 or 3700 feet up to 2700 feet. The perforations were put in to catch the oil. That well increased its rate of production from the time it was first put on the pump up until the time I gauged it. That is as far as my knowledge of its increased production went. After I gauged it that time I have not been there since and have not seen the well since. When I put it on the gauge it was producing at the rate of 406 barrels a day as a maximum up to that time. Of course, I could not say that it had gradually increased or what amount it had increased per day. When we first got it to showing oil, it would flow every once in a while, and going into the sump hole, we would not take much gauge of it. I do not think, at the start off, it would do much more than 50 barrels a day. That is about what we estimated it for a while until we got it on the pump. Of course, we could not get the oil out of it with a bailer as fast as we could with the pump. After we put it on the

pump it gradually increased in volume; for two or three days it kept getting better. Its increase in volume **[261]** can be explained by the fact that by putting it on the pump the pressure was released from the inside and took more fluid out of the inside of the casing and gave the oil a chance to come in through the perforations.

That well was drilled by a rotary drill, with which you force liquid mud or wet clay down in the casing and up around the sides. In drilling with a rotary drill, it is pumped into the side of the drill pipe and forced up around the walls on the outside. The purpose of that is to plaster the wall to keep the wall from caving. That pressure in the pipe is sufficient to force the mud up around the outside of the casing. Of course, in forcing that mud with the rotary up around the outside of the drill pipe, there is not any casing, as a general thing, but just as the bare walls of the well. As the bit cuts it away, it leaves the bare walls and the mud is forced around to wall that up, the same as plaster. We call it "plastering it up." When a well is first put on the pump, the perforations having previously been made, some of that plaster is still in the crevices, forced around the walls; and it loosens up, and sometimes, if the gas pressure is not great enough to force it out, it sometimes takes a long time to break the plaster off. If you have good gas pressure it may break into the wells and force it into the casing and you can pump it out and release it. There is a tendency for the production to increase as the plaster gives way under the pressure.

From my judgment of the conditions there, and my knowledge from an experience of 25 or 30 years, I think that well would be a better well if it had not been drilled with a rotary there is so much mud plastered in the walls of it. I don't think the well had a good chance to show what it really would be. I would think from my experience with rotaries that there is more oil back of that reservoir than is actually indicated by the present production of the well. I regard a well which produces 406 **[262]** bbls. as a pretty good well. From the conditions I saw and my knowledge of the territory and from my general experience in the oil business, I considered it a very good well; I thought the prospects were pretty good.

Up until the time I was there the Associated Oil Co., bad brought in only two wells in the Elk Hills that had produced any oil. That was this well on 26 and the one on 30. There may be other wells there now. I believe there is one on 24 that was drilled down, but I did not visit that well; I was only just in sight of it; never went down to it. It is located below the hills. All I know of it is by hearsay.

CROSS EXAMINATION OF JAMES F. MC CAY.

I did not say that the well on Sec. 30 is now producing 400 barrels a day; I do not know what it is producing, because I have not been to it since the day I took the gauge of it. That gauge was taken after the pump had been on two or three days. Hav-

ing the pump on in a well drilled with a rotary would have a tendency to relieve the pressure from the inside of the casing and let the oil flow freely in through the perforations. Of course, the least pressure there is on the outside of the casing, the better vent the oil, or whatever is back of it, has got to come through the perforation it will let it come. It ought to remove part of the plaster. The relieving of the pressure on the inside and keeping the fluid out of the casing, in my opinion, would have a tendency to make it produce more oil. I do not know whether the production of oil from that well afterwards dropped off. All I know would be just from hearsay.

Q. (By counsel for defendants) "You have heard, though, that it did, didn't you?"

(By Mr. Mills, counsel for plaintiff) "We object to that."

A. I heard that it was not doing as well. I could not say that the production dropped down to less than 50 barrels, **[263]** because I never was informed. I could not say as to the real production of it. It is common to find wells that show heavy flow at first and then diminish quite materially. I did not have charge of the drilling of this well and have no knowledge of the formations through which it passed. All that I had to do with it was to bail it out and perforate it. I was sent there to perforate it and get it to producing. I was able to ascertain to a certain extent at what point the oil began to flow in that well; at what depth, in making the perforations. I believe there was one place—I don't

know; I think it was along about 3200—that when we perforated it at that point it showed a little more oil; and then again at 2700 feet, it showed still more after the perforation. I could not tell from that whether or not the oil came in from oil sands adjacent to the 2700-ft. level or somewhere below. No man can tell that. I have seen oil pass up around casing clear to the top of the hole. In perforating a well, you are unable to determine exactly at what point oil is actually coming out of the sand. If you have not kept a log of the well and know where you got the sand, and everything, in the drilling part of it, of course, in the perforations you cannot tell exactly where it come in. That can be best determined in the course of actual drilling itself. I am not in a position, from my observations of that well to answer the question as to what point oil is coming out of the sand. They had some trouble with the well in Sec. 26. I really forget just at what depth, but they wanted to take the 4½" casing out, they had twisted off the drill pipe below and they could not go any further with their rotary, and they wanted to take out the 4½" casing and sidetrack this drilling pipe, or portion of the 4½" they had left in there, with the standard tools so as to make a clearance for the rotary to go ahead of it, and so I went over and jarred the string of 4¼" casing out and took it out and **[264]** then put in the standard tools and side-tracked the casing that was below so that they had a clear hole about 20 feet below the top of this obstruction that was in the hole, to go

ahead with the rotary. I couldn't say what the depth of the well was at that time to be positive. It was somewhere in the neighborhood of 3700 or 3600 or something like that, but I couldn't say as to the actual depth. Every once in a while while I was working with it, oil would flow up—every half hour or so. It didn't flow water. It just acted as though the oil would come up through the water and when it would get a certain amount on top of the water it would flow that oil out. At the time I was there the well was still filled with water and all the oil that was coming out was just what oozed through this water. It has been five or six months, something like that, since I was last at this well on Sec. 26. I don't know its condition now and am not familiar with the log of that well.

REDIRECT EXAMINATION OF JAMES F. MC CAY.

I have heard of W. S. Porter, of the Associated Oil Company. I don't know him personally. I believe he is general manager, Vice-President and general manager. I cannot say whether he is a competent oil man. He must be competent if he holds the position he is in. **[265]**

J. W. KAERTH, a witness called and sworn on behalf of the plaintiff, testified as follows:

I reside at Colusa, Colusa Co., Cal. I am a surveyor and civil engineer by profession, and am, and have been for about 24 years, County Surveyor of that county. I was employed as a subordinate un-

der Mr. Duee at the time that the Government survey was made of a portion of the lands in T. 30 S., R. 23 E., M. D. M., Kern County. While so employed, I was running the instrument. I was there with Mr. Duee. Spent about two weeks there then. To my recollection, our camp was in, I think the NE¼ of Sec. 33. Plaintiff's Exhibit E, examined by me, is a map of the survey, and our camp was on the NE¼ of Sec. 33, shown on that exhibit. At that time I went over that portion of the land that is shaded on that map. The land is included in survey No. 881, I believe. We found evidences there of oil, asphaltum. We called, it, for want of a better name—we called them asphaltum reefs. They had the appearance of ridges. We didn't know what they were at first. To my recollection those alphaltum reefs or ridges, as we called them, were rather plentiful; over the central part any way. Around near our camp there were plenty of them. I remember the main ridge or summit line of the hills over there. My recollection is that these asphaltum reefs or ledges showed up along the summit in quite a number of places. We removed some portions of these asphaltum reefs, or ledges, while we were there. How we come to remove them or dig out portions of them—in the first place we were using posts for corners, and we wanted to use rock if we could get it and we took these to be rock ledges. We sent our camp man out one day to see if he could not dig up some of that rock that we could distribute and use for corners. That evening, when he came in, he came

over and said it was not rock at all—it was tar. I went and looked at it and found it was hard cakes of—we called it asphaltum. We used to burn it for camp **[266]** fire. Used it for fuel. It would burn all right. We would have to use some twigs, brush or something, to start it. After it was started it would burn. We could not set it afire without using other means to get it to start.

We found mineral location notices on the land that was surveyed by us at that time, in T. 30, R. 23. There seemed to be notices pretty much all over the land. We found corner posts setting pretty much all over the land with notices, and a great many of these notices were just written and folded up and placed under a rock on top of the monument. We found a few stone monuments there marking the boundaries of claims, where there was any stone to be had. There was not very much there. I remember two or three small oil seepages on the land, what appeared to be oil seepages, small places on the land. I did not consider the land of any value for agricultural purposes. It was poor, very rough and precipitous and cut up badly by gulches, ravines and there was no water on it. We had to haul our water from McKittrick. At the time I was there there was no vegetation whatever, except small brush, sage brush or something of that sort, to my recollection. Of course it was in the fall of the year, before the rains. There was nothing growing on the lands, though, at that time. On the west side of the tract there were a couple of cabins. We did not go right to them, but I

could see they were building something there. They told me they were building oil derricks. I could see they had new lumber there and were putting up some sort of a structure. The farthest one south, when we left, was getting up apparently 20 or 30 feet high. These were along the west side of T. 30 S., R. 23 E., on a portion of the land we surveyed.

CROSS EXAMINATION OF J. W. KAERTH.

The cabins and derricks were along that tier of sections [267] 19, 30 and 31. 31 was not covered by that survey, but about 18, 19 and 30, or somewhere along there. I could not say on which of those three sections they were located; but just the way I could picture it now, I would say probably in section 18 and section 30, I may be mistaken about that. We closed in section 18. I think section 18 was surveyed before that. We closed in on those old lines. The upper one of the cabins and derricks might have been on section 18. The lower one, I think most likely was in section 30, I could not say on what portion of it, I think possibly—I would not attempt to say, but I believe, though, in the southern half of it. As I recollect it it was nearer the west boundary than the east boundary of the section. That would put it in the SW¼. I may be mistaken about it. That was not in the old survey. Sec. 30 was covered by our survey. We run the whole section. We had to trace all of the lines and run the whole section. Possibly the SW¼ of Sec. 30 had been surveyed before, in

1905, I don't remember. That survey had possibly been accepted, I don't remember. I know there were some portions of sections had been run. I know 31 had been run out, and Section 13, and some of those. My recollection is we spent about two weeks in that township, and during that time I was thoroughly over that township. During that time my attention was confined to the survey of that township, and in the course of that survey I had occasion to go to every portion of the township covered by that contract made with Jas. M. Duee, in 1901. My recollection is we completed the survey near the middle of December. To the best of my recollection our camp was in Section 33 of that township, and on the south slope of the Elk Hills. I found evidences of oil and asphaltum over a good portion of that township. I found those ridges or reefs. If I were going to describe them as they appeared there, I would say that they had very much the appearance, as I remember them of an ordinary ledge of sandstone. The surface of them was a **[268]** sort of grayish color. As we broke into them they were quite black, but the outer surface was gray. The material would burn. We did burn it in our camp fires. We did not dig out any except near the camp. We did not have to go very far to find plenty of it, and we dug it out around there and used it, but as I remember it, we saw it appear pretty much along the summit at different places all along. I cannot say hardly how many places. We saw it in a great many places, but just how many would require a

rather wild guess to specify the number. I would say we found it in more than a dozen places. I would say that what we took out was in sections 33 and 34, in the NE¼ of Section 33, because we found it right close to our camp, and in the NW¼ of Sec. 34, because it was closer to our camp. As I remember, the oil seepages we found there, one of them was in either section 25 or 36. The other was up in 17 or 2- of Tp. 30, Range 23. If I were going to specify where we found the oil seepages, I would say near the south line of Sec. 17, and near the south line of 25. I was going to say that whatever we found was usually close to the section lines, because we did not get off the lines very far. We were not interested in anything but running the lines and did not go off the lines very far. Whatever we found was necessarily pretty close to the lines. According to my recollection, the oil seep in 25 was in the NW¼. I remember it as being near the SE¼ of Sec. 25. That oil seep was just a small spot there in the bottom of the gulch, in a depression; just a small black spot in the soil, that had the appearance of oil. I was going to say it had the smell and appearance of oil. The asphaltum reefs were hard. The oil seep was soft; it was not hard like the other. I was last on the ground when I left that survey, and have never been back since. I don't think I could be mistaken as to the existence of these asphaltum reefs at the places I have indicated, although I am giving it entirely from my memory of nearly 11 years [269] ago, I think I have them correct. There is what I

call oil seeps in that township. Of course the oil was not running out there as water would run out of a spring, but the sand was black and had the smell of oil. We all noticed it and talked about it at the time, but the oil was not coming out like water would come out of a spring, or anything like that, but we called them oil seeps. An oil expert might not call them oil seeps. I don't know. I would be willing to go out on Tp. 30, R. 23, with the representative of the Defendant's company to see if I could find what I considered oil seeps and asphaltum reefs at that time. I can find the reefs. I know they are there. As far as those seeps are concerned, they might not be considered oil seeps by an expert, but that is what I call them. I have described all the indications I found in that township. Mr. Duee was present during that survey. He followed up and set the corners. I ran the lines and set temporary corners and he followed up and set the permanent corners and followed me up afterwards. He was engaged in active work in the field. I ran the lines and made the preliminary notes in the field. I then afterwards transferred the notes from those rough field books onto another book, in pencil, and turned them over to Mr. Duee. That is the last I ever saw of the notes. I had nothing to do with the final form of those notes, as turned in to the Surveyor General's office. I wrote them up—just exactly what I had done in the field—and Mr. Duee would give me the kind of corner that he had set afterwards and I embodied that in the notes, then turned the notes

over to him and never saw them afterwards. In the notes I wrote the general description of the land. When I turned over this pencil copy, I wrote the general description following, which is always to follow the survey. I characterized the lands as mineral. That was done by reason of what I observed on the ground, in the way of asphaltum reefs and oil seeps. That was my reason for characterizing them as mineral. I found location notices scattered through all that territory. **[270]** I did not see any one actually engaged in mining of any kind in that township. The only persons I saw were the ones at these two places I have spoken of where there were signs of buildings, and while we were camping there I think I saw two or three rigs go across. There is a ridge going across the township, which I think is shown on the map; and I saw two or three rigs cross about that ridge, but they did not seem to stop for anything, they went right across the country, they were apparently going beyond that or elsewhere. I saw no actual drilling operations going on anywhere in that township or any mining operations of any kind.

Q. Did you find any persons mining at any place in that township?

A. No sir.

Q. Could you, Mr. Kaerth, spend the time to go out to the Elk Hills immediately and make an examination?

A. What is this? Wednesday?

Q. Yes.

A. I think so.

Mr. Lewers—Very well. We will be very glad to make the arrangements. That is all.

Mr. McCormick—That is all, Mr. Kaerth.

Mr. Mills—That is all.

J. B. TREADWELL, a witness called and sworn on behalf of the plaintiff, testified as follows:

DIRECT EXAMINATION

I live at Tropico, Los Angeles County. I am 66 years of age. From the spring of 1893 until the summer of 1903 I was employed by the Southern Pacific Co., in developing and producing oil for them. It was in Summerland, Kern River and McKittrick where I carried on the principal operations. My duties[271] extended to the Coalinga field. I knew Mr. Collis P. Huntington in his life time. I knew H. E. Huntington and Julius Kruttschnitt. I knew each of the three during the period I operated in the oil fields above indicated. They were my superior officers and I acted under the orders of each of them at different times during all the time; that is, subsequent to that Mr. Hays came in as president and then Mr. E. H. Harriman, in that period. Mr. Hays came in on the death of Mr. Huntington and took his place, and it is my impression that he continued in it about a year. I ceased operations in Kern Co. in 1903, and during the summer of that year went to Alaska under contract wth the S. P. Co. E. T. Dumble took my former place with the

company, in addition to his position as geologist of the company, and continued to do the work that I had been doing previous to the time he took my place.

I knew Josiah Owen. He seemed to be in Mr. Dumble's employ. Mr. Dumble had been geologist for the Company before he took my place. I don't know how long. I knew he had been geologist since, perhaps 1901 or 1902. I was in the employ of the Company at that time. Later, I met Mr. Dumble in Oregon. He told me he was looking up some coal deposits, examining them in Oregon, near Bedford. I don't know whether it was on Government land or other land. I understood it to be in connection with the Company that he was looking up these coal lands. I was in the employ of the Company at that time. I did nothing there in Oregon in connection with the coal lands at that time, further than that he wanted me to go out with him to the place. They had some paraffine they had discovered under a lava deposit, and they had been selling it for bees wax. The people up there did not know what it was. It was about eight miles to the East of Bedford, about eight or ten miles from the railroad. That was before I severed my connection with the oil region, in the San Joaquin valley. Mr. Josiah Owen was with Mr. Dumble at that time. That **[272]** was the first time I ever met Owen.

During the time I was employed by the Company in the Kern River, McKittrick and Coalinga fields, as I have indicated, I don't know, really, who had charge of the withdrawing of the railroad sections,

the odd railroad sections, in those fields from sale, any further than this: I wrote to Mr. Madden whenever I wanted any lands withheld. I did this under instructions or directions from either Mr. Kruttschnitt, Mr. H. E. or C. P. Huntington. When orders of that kind were given, or letters, of a character I have just mentioned, were written to Mr. Madden, they were complied with as far as I know. Mr. Madden's Christian name is "Jerome", and his headquarters were in San Francisco. He was the manager of the Land Dept. for the S. P. Railroad Co., during that time or a portion of that time. I was frequently in his office during that time. The two Huntingtons and Kruttschnitt were Madden's superior officers. In one instance, as I know of my own knowledge, instructions were given by C. P. Huntington to Mr. Madden with respect to the railroad lands, that is, the odd sections of railroad lands that had been patented to the railroad in oil districts. That was when Mr. Madden had objected to my asking for the withdrawal from sale of so much lands. Then I was sent for to meet at Mr. Huntington's office. Mr. Huntington asked Madden what his grievance was, and he stated that they had opportunity to sell the lands and that I had withdrawn from sale large blocks. He wanted to know who wanted to buy the land. They did not seem to know exactly. I was asked, and I told them I supposed they were buying them for the oil indications, that is, for oil lands. If they had bought lands that way from the railroad, they would buy cheaper than they would

from the Government; they would get it for $2.50 per acre, 20% down and the balance to be paid along under their contract, and then the question arose if I was not with-**[273]**-drawing more than there was oil in. I told them I didn't know, that I was withdrawing enough so as to be sure to take in all that did carry any oil, and even more. So Mr. Huntington told him that on instructions received from me, to withdraw the sales.

I could not say exactly how much land I withdrew during the period I was employed with the Company, in 1899 until left there in 1903. I think in the neighborhood of perhaps 150,000 or 200,000 acres. I recommended these withdrawals on account of the fact that there might be oil there and to give them time to develop and see whether there was oil there or not. They could get just as much for the land after they found out there was not any oil in it as they could then.

In answer to a question as to what experience I had at this time, or up to this time, with oil lands, formations, and the value of lands for oil, I would answer I have been with the Union Oil Co., and Pacific Coast, and others—making surveys of topographical and geological features for the purpose of locating their territory, and also I was deputy United States mineral inspector and surveyed a great many mineral claims or oil claims for patent. I have had ten or fifteen years experience in oil fields, which covers geological experience. I had experience as an oil man in the Texas field prior to the time I severed my connection with the San Joaquin valley.

In answer to the question as to what I had to do during that time I was in the employ of the Company with reference to the leasing or sale of railroad lands, the odd numbered sections, I would answer: "Frequently an order came out to me—well, it was principally in Coalinga, suggesting that I name the condition, the shape of the land to be leased. Those I made my report on and returned either to Mr. Kruttschnitt or to Mr. H. E. Huntington. So far as sales were concerned, there was only one sale made, and that was in the Kern River. Mr. Hays wished me to pass **[274]** on the value of one section, or part of a section there, that the Standard Oil wanted to put their oil tanks on." I do not remember what section the Standard Oil Company wanted to buy. It was in the SW portion of the Kern River field, and the tanks are there, I think, today. It was a railroad section obtained by patent from the Government, under the railroad grant. The lands referred to as railroad lands which I ordered withdrawn, under instructions from H. E. Huntington, C. P. Huntington or Kruttschnitt, were lands that have been patented to the Railroad Company under the Act of 1866.

In pursuance of instructions given me, or in the line of my duty, I withdrew lands in the vicinity of McKittrick, but I never worked any of the lands of the Company in McKittrick, that is, of the railroad lands. The most of the lands I had asked to be withdrawn along there had been acquired—that crude oil—by the Buena Vista and the North Buena

Vista, and the Company known as, I think, The Georgia Oil Co.,—the Union Oil Co., of Georgia. They covered pretty nearly all of the seepages upon which —were shown, then in McKittrick. I withdrew, or reported and requested the Southern Pacific officials that there should be withdrawn a large quantity of land in the vicinity of McKittrick. That was in 1899 or 1900. I think I requested the withdrawal of the sections in the vicinity of McKittrick at one time. In requesting the withdrawals I took a map issued by the Kern Land Co., or Kern Valley Land Co., whichever the name is, and colored the odd sections that I wanted withdrawn from sale and forwarded that to Mr. Madden. The odd numbered sections thus colored would extend from three or four miles north of McKittrick down to Midway, then included Midway on to Sunset. That might not have been in one notice of withdrawal from sale. It might have been in two, and the request might have been as late as 1902. I would not be at all surprised if the second was in 1902. I **[275]** think I made less than half a dozen recommendations for withdrawals altogether. I sent them to Mr. Madden. I had nothing to do with the leasing or sale of railroad sections in the different fields,—I mean sections patented from the Government under the act of 1866, other than the withdrawals I have already spoken of, except when I was asked my opinion and to decide under what royalty they should be leased, and the form of the land in a subdivision. I did not execute the leases. Those instructions came from Mr. Krutt-

schnitt or Mr. H. E. Huntington and I made reports on those things to them. I was consulted with reference to those leases during the whole time after they commenced to make leases, and I think they first commenced to lease about 1899 or 1900.

In answer to the question as to whether there was quite an effort on behalf of oil corporations and persons to either lease or purchase railroad sections in the Kern River field for the purpose of developing them for oil about that time, I answer: "The Kern River had all been purchased before I asked for any sales to be discontinued, with the exception of a portion of Section 3 and the section afterwards sold to the Standard Oil Co., and another piece which was afterwards leased to some parties to drill on and which they failed to get anything on." I had been out there on the ground, I guess, a month or six weeks before these sales were made. Had I known that there would have been a rush in there to have taken those, I should have asked to have the sales discontinued, but that all took place when I was at McKittrick and we only had two trains a week and I came into Los Angeles and found that they were purchasing all that land at $2.50 per acre, and I telegraphed to Mr. Madden to withhold the further sales and it had all gone except these three pieces that I have mentioned.

I think section 3 is in T. 28, R. 28. It was after-
[276] -wards developed under my supervision and produced oil. My supervision of the development and production of oil on that land was by virtue of

an employment with the Southern Pacific Co., which I have already mentioned. A portion of that section had been sold by the Company years before. In fact, all of it had been sold and foreclosed, bought and came back to the Company; the purchasers did not make the full payment. It was sold several years before the oil excitement. The oil produced on that part of section 3 that was developed by me was loaded on to the cars and shipped to different points on the railroad, as instructed by the different orders that came to me for oil. It was used by the railroad. I kept a set of books there. As to what charge was made to the railroad or to anybody for the oil that was produced and shipped, I would say all that was kept was the quantity of oil run into my expenses, and those were forwarded first to Mr. Kruttschnitt's office, while I was conducting the development and operations in my own name; and subsequently we changed it to the Southern Pacific and then my returns were made to the Auditor of the Southern Pacific. I conducted the operations on Section 3 in my own name for a time. The property did not belong to me, but I had been conducting other operations in my own name for the Southern Pacific Co. That was done because I first went to Summerland and bought some property there and then I went to McKittrick and got leases; and the object was that if the Southern Pacific was buying them they would have to pay a greater price, and if I was taking it up myself it would be a different proposition.

To my knowledge no charges were made against

the Southern Pacific Railroad Company or any one else for oil that was produced and shipped from section 3, either while I was operating it in my own name or when it was afterwards operated in the name of the Company. I could not say for a certainty who owned the title to the fee of section 3, upon which this oil was produced. I paid no rental or royalty when it was operated in my name, and [277] as to any other company, do not know whether rentals or royalties were paid. I was also engaged for the Southern Pacific Co., in the production of oil on what was known as the J. B. Treadwell lease, in McKittrick. It was not known as the S. P. lease. It was a lease that I took in my own name, and operated in my own name, the Southern Pacific paying all the expenses and receiving all the oil. I was acting for the Southern Pacific. It might have been afterwards called the S. P. lease, later, when it became changed over to the returns and operated openly by the Southern Pacific. That lease was not operated on railroad lands. It was operated on lands patented to the Buena Vista Oil Co. It was on the SW¼ of the SE¼ of Sec. 20, T. 30 S., R. 22 E. There was another property at the north, what we called the North End field, on the North Buena Vista patent. It was operated by me for the Southern Pacific Co. The Buena Vista and the North Buena Vista Companies owned the title to the lands upon which those developments took place.

I got the data or information upon which I made my reports respecting the withdrawal or leasing or

sale of railroad land in Kern County by just being upon the ground looking over the country generally. I got it from personal investigation. I had maps of all the different fields, and I kept those records up as to the depth of wells, sand, etc., they passed through, the quantity of oil produced. They might say these records belonged to the Southern Pacific Co. I was not required or asked to keep those records and maps. After I left, I think I had a duplicate of about everything that I had in the field, and those were destroyed. The balance were either left in the office or they were in the general manager's or the president's office, of the Southern Pacific.

I took Mr. Dumble over the oil fields in Kern Co., at the time that he came there to supercede me. I went with him, [278] spent several months there off and on to go with him over the field and show him everything that was being done. Mr. Owens was not present. He might have been in his employ, but he was not present. I think that was early in 1903.

CROSS EXAMINATION OF J. B. TREADWELL

I prepared maps showing the development of oil in the various operations in the territory in McKittrick. My duplicate maps were destroyed at my residence in San Francisco during the earthquake and fire of 1906. I had my library and my cabinet and everything there, field notes, running back for a great many years and the time my house was destroyed they were destroyed with it. The originals

of those maps were probably sent to some of the officials of the Southern Pacific Company. I was employed by the Southern Pacific Company. I was never employed by the Southern Pacific Railroad Co. I never had anything to indicate that I was employed by the Southern Pacific Railroad Co. My letters and all were in connection with the Southern Pacific Co., headings and all. The Southern Pacific Co. was operating the railroad in Bakersfield at that time. I was employed, and it was one of my duties to get oil to use as fuel on the line. The Southern Pacific Co. began to use oil as fuel before I went with them. I was engaged in the oil business in Summerland, and I sold them oil before I went—that was three years before. How much longer, I don't remember now, when they commenced to use oil. They didn't use oil as extensively then as they are doing today. Very little was used. The Southern Pacific Co. began its extensive campaign to procure fuel oil when they engaged me. That was in 1898 or 1897—I forget which—that I went there. Either early in 1898 or late in 1897. It was my duty to procure oil for the Southern Pacific **[279]** Co., for fuel on its road. When I went into McKittrick and also into the Kern fields, and elsewhere, it was for that purpose.

I had nothing to do with the examination of lands for the purpose of procuring patents for the Southern Pacific Railroad Company. I had no connection whatever with that. On various occasions I had submitted to me the question whether certain lands al-

ready patented to the Southern Pacific Co., should be sold. When these questions were submitted to me, my attention was directed to the matter of the oil in the land. That is, not in all cases, but at Coalinga that was true. There were no applications that I remember of at McKittrick for the sale of any land; that is, no orders to me to make any applications. I made blanket withdrawals of lands near McKittrick from sale. I know the Elk Hills. None of my withdrawal orders took any portion of the Elk Hills.

Q. "Why not?"

Mr. Mills (Counsel for plaintiff)—"Objected to on the ground that it is irrelevant, incompetent and immaterial and not cross examination."

Q. BY MR. LEWERS (Counsel for defendant) —"Why didn't you, Mr. Treadwell?"

A. "I had been over in the Elk Hills on some location notices that I had been interested in, that is, my name was put down."

MR. MILLS—"I desire again to renew the objection that it is not cross examination; and I desire to notify counsel that any new matter that is brought out by this witness on cross examination—that in that respect the witness will be treated as a witness for the defense, and we will claim the right, if we see fit to exercise it, we will claim it anyhow to impeach the witness as the witness of the defense."

MR. LEWERS (Counsel for defendant) after responding to the **[280]** above, said: "Complete your answer." A. "After seeing the land I did not consider it worth doing the annual labor on, and did not

consider it, at that time, oil land of any value; therefore I never reported to the—asked to have that withheld from sale, for that reason."

Q. "I understand you to say that as a result of your examination made in the Elk Hills, you did not consider that land as of any value for oil."

MR. MILLS—"It may be understood that my objection goes to all this line of examination."

MR. LEWERS—"Yes."

A. "That was my conclusion at the time." The reason that my name happens to come on the location notices referred to is that several of the drillers had been over and had an idea it was oil land and suggested that I join with them in making the location. I said "All right, go ahead." They made the locations and then I went over afterwards to see, and as a result, concluded that I didn't want it and made no attempt to keep up any of those locations. I do not know whether the locations were ever recorded. I don't remember.

The lease referred to, near McKittrick, from which the Southern Pacific Co., obtained oil, was on land patented to the Buena Vista Oil Co. There was no lease and no oil developed and used while I was there from any land belonging to the Southern Pacific Co. I mean the Southern Pacific Railroad Co. I do not know anything about what charges were made by the Auditor of the Southern Pacific Railroad Co., against the Southern Pacific Co., for any oil. I don't know how the books in San Francisco were kept. As far as my office was concerned, or my duties con-

cerned, it was one of my main duties to look after the production of oil for fuel. In the course of the performance of my duties, I had occasion to examine surrounding territory quite **[281]** carefully and aimed to be—I think I was familiar with the general oil situation in the vicinity of McKittrick up to the time I left there.

I don't remember any discussion or any talk in McKittrick as to the Elk Hills. It was not considered promising oil territory at that time. The locators who went in there, as far as my experience is concerned, were simply oil drillers and working around the oil fields. They did not do any actual development work that I know of. That territory was not developed in any way, or prospected in any way, by competent oil men while I was in McKittrick.

In the various fields where I was employed I advised the withdrawal of a considerable amount of land. In doing so, I did not determine that each and every acre of the land withdrawn was actual known oil land. I followed the system of taking the trend of the oil and located enough so as to be sure to go far enough on the dip to include all the oil that they, in the future, might develop, and even further. I made a liberal allowance for future probabilities. I did not include any part of the Elk Hills.

In answer to the question as to what was the general belief and understanding, at the time I was employed at McKittrick, as to the depths to which an oil well could be economically sunk, I will say, when I

first went to McKittrick we did not think of going more than 400 or 500 feet and up to 1000. The oil territory generally through the State was small wells. Very seldom got a 100 barrel well and the sinking of deep wells, going out on the dip of the strata, is a subsequent operation, and has been followed out, or felt out, by going next the apex; drilling a shallow well and then going out deeper until they have gone to as deep as they could go, I suppose. In 1904, in considering the maximum depths that we could sink a well and get any profit **[282]** from it, we did not calculate to get over 1000 feet or 1200 feet.

Q. "Well now, if you had been advised at that time that a well—oil could be found at a depth of over 3000 feet, would you have recommended development of that well?"

MR. MILLS—"Objected to on the ground that it is irrelevant and immaterial."

A. "Not as long as we could have got shallow wells. It would all depend on the quantity of oil you could get out of the well."

If I had been advised that there was a prospect that I might get oil, but no certainty, at a depth of over 3000 feet, I would not have sunk a well.

I never informed Mr. L. G. Sarnow or Fred Sarnow that the territory in the Elk Hills was good oil territory. I don't remember a man named Duee. I cannot remember the name. May have known him, but don't remember. I never informed or advised anybody while I was operating in McKittrick, or

during that period, that the Elk Hills were good oil territory. If I had believed it good oil territory I would have got in and got some for myself.

REDIRECT EXAMINATION
OF J. B. TREADWELL.

I never, during these withdrawals, recommended the withdrawal from market of any land in the Elk Hills. I may have included section 31, in T. 30, R. 23, in a withdrawal. I don't consider that in the Elk Hills. The map introduced as the Government Exhibit I, may show a small portion of it as being in the Elk Hills, if that map is correct. I could not say certainly whether I ever included that in any withdrawal. I am not prepared to say whether section 25, in T. 30, R. 22, is in the Elk Hills or not. I think both of these sections were included in patents to the Southern Pacific Railroad Co., at the time I was **[283]** in their employ.

Q. "Will you swear, on your oath, that you never included any of those lands in your orders to Mr. Madden?"

Question objected to by Counsel for defendants on the ground that "It is unnecessary excresence of expression on the part of counsel; and we object further, on the ground that he is cross examining his own witness on redirect examination."

A. I don't know whether those sections are really in the Elk Hills or not. They might be right in the foot hills or slope of the Elk Hills; and I am not prepared to state because I could not say what partic-

ular sections that I asked to be withdrawn." I don't know by sections any of the patented lands in the Elk Hills, belonging to the Railroad Company during the period of my employment, except the two I have named. I didn't go over the Elk Hills during the time I worked for the Southern Pacific Railroad Co., for the purpose of identifying the sections. I was pretty familiar with the patented lands of my employer, and I asked for discontinuance of sales, I withdrew sections, that I had not been on.

At the time I left the employ of the Southern Pacific Company I did not know, as a matter of fact, that the South part of T. 30, R. 23 had not been patented to the Southern Pacific Railroad Co. I made a map of the lands that were patented and I would not have made an order of withdrawal to Madden which included lands which had not yet been patented. I would not have included in an order of withdrawal the lands embraced in the patent dated Dec. 12, 1904, and the fact that they had not been patented would be a sufficient reason for my not doing so. I don't know positively now, as a matter of fact, that I asked the withdrawal of sections 25, in T. 30, R. 22, and Sec. 31, in T. 30, R. 23, and could not tell whether I had done so unless I had the original maps before me, that I made at that time. **[284]**

I don't remember that I knew a man named Thomas J. Griffin. He didn't work for the Arroyo Bravo Co., under me in Texas, because we didn't have the Arroyo Bravo Co. That Company was created after I had given up Texas. I have no recol-

lection of having written a letter to him, at his home in Texas, after I returned from Texas, sending him a map of the country extending from Sunset to McKittrick, including the Elk Hills, and asking him to organize and come up there and locate the even numbered sections between the Railroad sections, in the Elk Hills, and I don't believe I wrote any such letter. I never wrote to Mr. Griffin or any other man, sending maps of this country, stating that the Railroad Co., owned every odd numbered section included within the maps, that all the lands were mineral; that they had yet lands to be patented which were mineral, and which I knew were mineral, in the Elk Hills; and that I wanted them to come up and organize and locate those lands.

I am not now riding on a pass of the Southern Pacific Co., or the Southern Pacific Railroad Co., and have not had such a pass since the law of the State of California prohibited riding on passes. If that law had not intervened, I would, no doubt, be still riding on such a pass; and I feel that I would be entitled to it, in consideration of the money I have made for the Southern Pacific.

I may have gone, in company with John Jean and L. G. Sarnow, into the Elk Hills to discover, or to examine a previously discovered oil seep on the NW¼ of Sec. 32, in T. 30, R. 24, but I don't remember of seeing any seepage. I know I went out there, I think, with either one or both of them, I don't remember whether I went with both or one of them. When I went out, I went from my own camp at Mc-

Kittrick. I don't remember seeing any oil seepage.

Q. "Did you give any opinion at that time?"

[285]

A. "I don't remember the particulars, whether I got off my horse or not. The country, at the time we went out there was bare—some sage brush—the grass had all been eat off and you could see the formation as you rode over it." I don't remember that at that time I expressed any opinion to Mr. Sarnow as to the possibilities of oil in that country. If I did, I said it was no good, in my opinion. I paid my portion—I may have paid all the expenses of the locations in that vicinity, in which I and Mr. Sarnow and Mr. Jean located a number of sections of land.

Q. "Was that because it was no good?"

A. "No."

RECROSS EXAMINATION OF J. B. TREADWELL.

I paid for hiring the horse to go out there and recording. That would be all the expense, it would amount to nothing. I was never called on to pay anything for development or location work. I had in my possession maps and data showing the land that was actually patented to the Southern Pacific Railroad Co., in that vicinity. The line of the withdrawal ran generally west and southwest in the flat valley to the south of the Elk Hills. I was subpoenaed in this case, as a witness, April 19th, this month. When I was subpoenaed I came here to the Court House

and had an interview with the Attorneys for the Government, Mr. Mills and Mr. McCormick. I was told this morning when I would appear as a witness in this case. I have had three interviews with the Attorneys for the Government. I was asked by them whether or not I had been employed by the Southern Pacific Railroad Co., and replied that I had only been employed, as far as my knowledge was concerned, with the Southern Pacific Co. I don't remember what response was made to me by either of them, when I told them that. I think they got all of that down. They had a shorthand reporter, who took down our conversation. There was nothing said with refer- **[286]** ence to Mr. Lewers, attorney for the defendant, in that conversation. They asked me whether I had held a conversation with Mr. Lewers, and I told them at the time I didn't know him. I had never met him. I never had any conversation with Mr. Lewers.

REDIRECT EXAMINATION OF J. B. TREADWELL

Before I appeared on the stand today I had had a conversation with the counsel for the Railroad Co., or some of its representatives, not exactly as to what I was to testify about here. They interviewed me on some of the questions, they wanted to know if I had been over the Elk Hills. I talked with the defendant's counsel in court here. He wanted to know if I had been over to the Elk Hills and was familiar with that section. I told him I had only been over, I

think once or twice and rode over it, but I had been interested by being located in some locations there, but didn't consider it, after seeing the ground worth keeping up. I think he asked me if I had been employed by the Southern Pacific Co., or Southern Pacific Railroad Co. I told him the Southern Pacific Co. I think that conversation was last Monday. I was subpoenaed on the 17th, I think it was, and I think Monday was the 20th. I think it was the day after Mr. Mills asked me, or the same day that he asked me, if I had met any of the counsel for the other side. That conversation took place in Judge McKinley's office. He telephoned me to come there. When I got there I found that the counsel, that is in Court here, there, Mr. Lewers, Mr. McKinley came in afterwards. No one else was there—there might have been some clerks, but no one was present during the conversation. The conversation might have lasted ten minutes. I did not volunteer to go there. It was proper, nothing wrong to go there, although called as a witness for the Government. Nothing that I had to testify to but what any conversation with the other side would make no difference in my [287] testimony. It wouldn't make a particle of difference. I have got to tell the truth. I didn't tell Mr. Mills, at the first conversation I had with him, that the Elk Hills, in my opinion, was the best part of the oil territory in McKittrick field. He must have been mistaken in that. I didn't say that to him. I didn't say that I and Mr. Sarnow and Mr. Jean located there because of that, but that I didn't

keep it up because I had other interests and could spend no time on it. He must have misunderstood that. I do not think, if he will take his stenographer's notes, he will find any conversation of that nature. I had a talk with Mr. Gardner, one of the Government's Special Agents, the only conversation I had with him, he called on me at the California Club and asked me if I knew that country up there. He didn't say any particular section. And he wanted to know if I would kindly go up to see Mr. Mills. I don't think I had a conversation with Mr. Gardner in the office of the United States attorney during Mr. Mills' absence in Washington, with respect to the Elk Hills. I didn't have that conversation. I didn't have any talk with him elsewhere about the Elk Hills. Since the time he asked me to go up to Mr. Mills' office, I had a talk with him. He called up on the phone, and he had an album with a lot of pictures in it, and wanted to know if I could identify any of them as to the man who took them. My picture appeared in several of the pictures. I told him I I could not recollect and didn't, and I could not tell who took the pictures. Some professional man was making pictures through the field. I told him I thought Charles Canfield, perhaps, could tell him about it. I did not disclose to anyone representing the Government in this case, since my interview, on Monday, with Mr. Lewers and Mr. McKinley, that I had been in secret conclave with them with reference to the issues in this case. I kept that to myself. [288]

RE-CROSS EXAMINATION
OF J. B. TREADWELL

The interview I had on Monday morning in regard to this case was entirely with Mr. Lewers. Judge McKinley came into the office, but was tending to other matters and went out. There was no suggestion at all made to me by Mr. Lewers, or any other representative of the defendant, as to what I should testify to or what I should not. I would regard such a suggestion, even if made by anyone, as totally unwarranted, whether it came from a Government representative or not.

REDIRECT EXAMINATION
OF J. B. TREADWELL

I do not mean that any Government representative indicated to me what I should say here. They didn't.

[289]

H. M. SHREVE, a witness called and sworn on behalf of the plaintiff, testified as follows:

I live at Tulare, Tulare Co., California. My present business is banking in that City. I am Vice-President and Manager of the First National Bank there, and have been since 1902. I am acquainted with the country around the present town of McKittrick, in Kern Co., California. I first became interested in that country in 1888 or 1889. I was there first taking up land, locating it for mining purposes. I, with associates, located land there. The locations were all in T. 30, R. 22, in Sections 21, 19 and 29. The Southern Pacific Railroad Co., made claim to

those odd-numbered sections which I have described, under the grant of July 27, 1866. They made application for the land at the Visalia Land Office. We had made the locations before the Company made its application, and we protested against the issuance of patents to these lands because of the alleged mineral character. The Tulare Oil & Mining Co., had been organized at that time. I was one of the organizers and stockholders of that Company. The Company was organized for the purpose of holding the lands that had been located in the Buena Vista district, T. 30, R. 22, and the interests which I and my associates held as locators of the land described, had been at that time, previously transferred to that Company. Upon the initiation of the contest or protest against the Company's application for patent, an agreement or understanding was made by us with the Railroad Co., as to the relinquishment of a portion of the land. That must have been in the latter part of 1899. In pursuance of that agreement a part of the land was transferred to the Tulare Oil & Mining Co., by the Southern Pacific Railroad Co., and a relinquishment was made by the Tulare Oil & Mining Co., to the Southern Pacific Railroad Co., of some of the tracts. Referring to Section 21, the local land office at Visalia had **[290]** rendered a decision as to the character of that land previous to that date. It was favorable to the Southern Pacific Railroad Co., and the Tulare Oil & Mining Co., sought a re-hearing upon that question, and pending that re-hearing, the agreement which I have referred to was entered into.

I was Secretary of the Tulare Oil & Mining Co., at that time. The agreement was in writing. I think when the negotiations were consummated, closed, the agreement was returned to the Southern Pacific Co. Subsequent to that decision the Tulare Oil & Mining Co., made a showing of minerals on Sec. 19, T. 30, R. 22. I believe that showing had an influence upon the Southern Pacific Railroad Co., in effecting this compromise.

I knew Jerome Madden. He was at that time Land Agent for the Southern Pacific Railroad Co. As a result of that agreement a deed was issued—or, rather, no protest was made in the land office; patent was issued, deed was issued by the Southern Pacific Railroad Co., quit claim deed, to the Tulare Oil & Mining Co.; the Tulare Oil & Mining Co., by quit claim deed, deeded to the Southern Pacific Railroad Co., and placed it in escrow, and, after showing of oil was made on the SW¼ of 19, the deeds passed, the Tulare Oil & Mining Co., taking a deed to the SW¼ of 19 and the Railroad Co., taking a quit claim deed to the lands in 21. I had a location on section 29. Oil was discovered on that territory by lessees; not by our Company. It would be rather difficult for me to give the date of that discovery. I could refer to the minute record and tell the date. That record is the record of the Secretary of that Company.

Q. "And made by yourself?"

A. "Yes sir; it was, at this time."

Q. "What date was that?"

A. "The matter appears in the minute book

previous to that [291] in Part 1; but it was in 1898."

They made a showing there of a heavy oil, liquid asphaltum oil. The Railroad Co., at the time it was seeking to obtain, through selection, that land, knew by its agents, oil experts or others, of the mineral character of that Section 29. Mr. Treadwell knew about it. He was present up there and saw the oil at the time I was there. It would be difficult to say how much oil was being produced at that time. It was a heavy oil. They didn't have the sand, but I should judge they were getting possibly three or four or five barrels a day. The quit claim deed referred to by me, relating to the fractional SW¼ of Sec. 19, T. 30, R. 22, was dated Feb. 21, 1900. I recognize the paper now handed to me as that deed.

Thereupon counsel for the plaintiff offered said deed in evidence, which was marked Plaintiff's Exhibit L, a copy of which is as follows:

QUITCLAIM DEED NO. 11980.

THIS DEED, made February 21st, 1900, between the Southern Pacific Railroad Company, a corporation, D. O. Mills and Homer S. King, Trustees under the trust deed hereinafter set forth, the parties of the first part, and Tulare Oil and Mining Company, the party of the second part,

WITNESSETH: That

WHEREAS, on April 1st, 1875, the said Southern Pacific Railroad Company, by trust deed bearing that date, conveyed to D. O. Mills and Lloyd Tevis, the successors and assigns, all lands granted by the

United States to aid in the construction of the said Company's railroads, in trust to secure payment of certain bonds particularly set forth in the said trust deed; of which the lands hereinafter described are a part; and

WHEREAS, the said trust deed provided that the said [292] company may sell the lands in it conveyed as opportunity occurred, upon terms agreed upon by the said Company and Trustees; and that when any tract or parcel of said lands shall have been sold and the purchase price fully paid, it shall be conveyed in fee simple by the said Company and Trustees, to the purchaser thereof; and that such conveyance shall release the land so conveyed from all lien or incumbrance of the said trust deed, absolutely and forever; and

WHEREAS, the said trust deed further provided, that in case a vacancy should occur in the number of said Trustees, such vacancy should be filled by the nomination of the remaining Trustee, subject to the approval of the Board of Directors of the said Company; and that the person so nominated and approved, should, immediately upon his acceptance of such appointment, become a Trustee under such trust deed, vested with the same estates, powers, rights and interests, and charged with the same duties and responsibilities, as if he had been one of the original Trustees named in and who executed the said trust deed; and

WHEREAS, on March 24th, 1883, Lloyd Tevis, one of the Trustees aforesaid, resigned his trust un-

der the said trust deed, and on April 3d, 1883, the said D. O. Mills, as remaining Trustee, nominated Gerrit L. Lansing to fill the vacancy created by the resignation of the said Lloyd Tevis; and on April 17th, 1883, the Board of Directors of the said Company approved the nomination of said Gerrit L. Lansing; and on April 18th, 1883, the said Gerrit L. Lansing duly accepted the said appointment; and

WHEREAS, on February 4th, 1896, the said Gerrit L. Lansing died; and on March 14th, 1896, the said D. O. Mills, as remaining Trustee, nominated Homer S. King to fill the vacancy created by the death of the said Gerrit L. Lansing; and on March 18th, 1896, the Board of Directors of the said Company **[293]** approved the nomination of the said Homer S. King; and on March 21, 1895, the said Homer S. King duly accepted the said appointment; and

WHEREAS, the said trust deed further provided that the Trustees under it shall have the power and authority to act by attorney, to be appointed by them, in making the conveyances in said trust deed provided for; such appointment to be made by letter of attorney, duly acknowledged, and to be recorded in each county within which any of the lands of the said trust deed are situated; and that all deeds made in the names of such Trustees, by their attorney appointed as aforesaid, shall have the same force and effect as if made by the said Trustee in person; and

WHEREAS, on March 28th, 1896, the said D. O. Mills and Homer S. King, Trustees as aforesaid, by letter of attorney duly acknowledged and recorded

as in the said trust deed provided, appointed Jerome Madden their true and lawful attorney, in their names, place and stead to make, execute and deliver all conveyances required of them under and pursuant to the terms of the said trust deed; and

WHEREAS, the said Company has sold the hereinafter described lands upon terms agreed upon by it and the said Trustees to Tulare Oil & Mining Company for the sum of One ($1.00) Dollar, which sum has been fully paid to the said D. O. Mills and Homer S. King, Trustees as aforesaid;

NOW, THEREFORE, in consideration of the premises, and the said sum of One ($1.00) Dollar, the receipt whereof is hereby acknowledged, the parties of the first part do remise, release and quitclaim to the said party of the second part, and to its successors and assigns, all the right, title and interest which they now have, or may hereafter acquire, from the Government of the United States, of, in and to the following described **[294]** tract of land situate, lying and being in the County of Kern and State of California, to-wit:

The fractional South West Quarter (Frac. SW¼) of Section No. Nineteen (19) in Township Thirty (30) South, of Range Twenty-two (22) East, Mount Diablo Base & Meridian, containing one hundred and sixty-one and one-hundredths acres (161.01), according to the United States surveys, together with all the privileges and appurtenances thereunto appertaining and belonging; reserving all claim of the

United States to said tract as mineral lands. (Internal Revenue Stamp on margin.)

TO HAVE AND TO HOLD the aforesaid premises, to the said party of the second part, its successors and assigns, to its and their use and behoof forever.

IN TESTIMONY WHEREOF, the said Southern Pacific Railroad Company has caused its name to be signed to these presents by its President pro tem and Secretary, and its Corporate Seal to be hereunto affixed; and the said D. O. Mills and Homer S. King, Trustees, by their said attorney, Jerome Madden, have hereunto subscribed their names and affixed their seals the date herein first written.

SOUTHERN PACIFIC RAILROAD COMPANY,

By J. L. Willcutt,
Its Secretary.
[Corporate Seal].

By H. E. Huntington,
Its President pro tem.
D. O. Mills, (Seal),
Homer S. King, (Seal),
Trustees.

Br & K. G. T. F.

By Jerome Madden,
Their Joint Attorney-in-fact.

State of California,
City and County of San Francisco,—ss.

On this 21st day of February, in the year one thousand nine hundred (1900) before me, E. B. Ryan, a Notary Public in and **[295]** for the City and County of San Francisco, State of California, personally appeared H. E. Huntington, known to me to be the President pro tem and J. L. Wilcutt, known to me to

be the Secretary, of the Corporation that executed the within instrument; and each of them acknowledged to me that such Corporation executed the same; also, on this the day aforesaid, before me, the Notary Public aforesaid, personally appeared Jerome Madden, known to me to be the person whose name is subscribed to the within instrument, as the Attorney-in-fact of D. O. Mills and Homer S. King, and acknowledged to me that he subscribed the names of the said D. O. Mills and Homer S. King thereto as principals, and his own name as Attorney-in-fact.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my Official Seal at my office in the City and County of San Francisco, State of California, on the day and year above written.

[Notarial Seal]. E. B. RYAN,

Notary Public in and for the City and County of San Francisco, State of California.

[Endorsed]: 3248 Quitclaim Deed No. 11980. Southern Pacific Railroad Co., D. O. Mills and Homer S. King, Trustees. To (Tulare, Cal.) Tulare Oil and Mining Co. Quitclaim Deed. Dated February 21st, 1900. Recorded at Request of H. M. Shreve June 7th, 1901, at 45 min. past 8 A. M. in Book 98 of Deeds, Page 134, Kern County Records. Chas. A. Lee, Recorder, By C. S. Meroney, Deputy Recorder. $2.00. Compared.

U. S. Dist. Ct. So. Dist. Cal. Northern Div. United States vs. Southern Pacific Co. et al., No. 221.

Plaintiff's Exhibit Shreve No. 1. Filed April 25th, 1912, Leo Longley, Special Examiner. **[296]**

Witness continuing further, testifies as follows:

I am not a practical mining man or oil expert. I have had some experience in putting some wells down, but I am not an expert. I am acquainted with the oil seepages and showings around the then town of Asphalto, or around what is now known as McKittrick, from personal observation. As a description of their appearance and location, I would say that, in various parts of 30-22, right in the immediate vicinity of McKittrick, there are large showings of liquid asphaltum oozing from the ground, and in many crevices and in the excavations made, in the summer time the asphaltum is in a liquid shape. In recent years there has been a great many of those pits dug for the purpose of catching the asphaltum, which was used at one time for fluxing, in making asphaltum. They had an asphalto plant there at one time. There were such indications in the early days, when I first went into that field. In many places the asphaltum had shown and evaporated on top, that had been at one time liquid asphaltum, the same as in these gulches. A waste of oil was shown quite considerable in previous years. The evidences I saw there have much influenced me in making locations. At that time I did not know about, and had not been in the Elk Hills. I have never been in the Elk Hills in my life, that I know of, and know nothing whatever about them.

CROSS EXAMINATION
OF
H. M. SHREVE.

I cannot tell exactly the date when the Tulare Oil

& Mining Co. was formed. It was the following year after the claims were located, in 1899. I used to run out to McKittrick quite frequently up until 1901, then for twelve years I went over there at different times. The property in the SW¼ of Sec. 19,-30-22 was located, I think, in 1889. I could not give the date of the contest in the land office, concerning Section 19, **[297]** T. 30, R. 22 without referring to the minute book. I think I can by referring to our mining company's minutes. The minute book shows a resolution authorizing the Board of Directors to proceed in the hearing, I think. After referring to the book the witness said it was prior to 1899. I cannot fix the date. The resolution was passed Nov. 6, 1899, and related to the matter of re-opening the case that had been recently decided adversely to the Tulare Oil & Mining Co. I cannot tell how long before that the protest was filed; I have no recollection except what appears from the book. I don't know whether I had anything personally to do with the filing of the protest or whether the President of the Company did it. I do not, at this time, know what the contents of the protest were. I know, of my own knowledge, that it was filed. I don't think I was present at the contest which was held, I think, in the local land office. I think our Company produced witnesses at that contest. I could not say positively. We were represented by an attorney. After the hearing of that contest a decision was rendered in favor of the Southern Pacific Railroad Co., as to the character of the land. There had been very little development work done

on the SW¼ of 19 prior to 1909. No oil had been discovered on that quarter prior to that date. We had not discovered oil in Section 21. 19 and 21 were involved in that contest. I think the south half of 19. On the SW¼ I think no wells were put down. On the SE¼ of 19 there were wells at that time. I cannot say whether it was the S½ of 19 or merely the SW¼ of 19 that was involved in the contest. After the decision of the land office, our company applied for a re-hearing. No, we didn't apply for a re-hearing; we made arrangements with the Railroad Co. not to re-open the case. In the meantime, we had a well bored on the SW¼ of 19 and found light oil there. We found heavy oil in Section 29. That was not involved in the contest. We had not dis- **[298]** covered light oil in 19 between the time of the hearing and the time we decided to apply for a re-hearing. I cannot state the date when the discovery of oil on the SW¼ of 19 was made. It was made before the execution of the deed. It must have been five months before. Instead of carrying on our application for a re-hearing, we entered into an agreement with the Railroad Co. The Railroad Co., procured its patent to this land and then the deeds were executed. I do not know, as a matter of fact, that Section 19 was not patented until May 22, 1901. I don't know when it was patented.

The SW¼ of Sec. 19 must be about two miles from McKittrick, southwest from the present town of McKittrick. At one time the town was further south than it is now. I cannot say that this section is situated southwest and south of the Elk Hills. I

am not familiar with where the Elk Hills are. This location of ours was not in the Elk Hills, to my knowledge. I was never over the Elk Hills, and know nothing about them. Section 19, pointed out to me on the map marked "Government's Exhibit I," is situated in what is marked on that Exhibit as McKittrick Hills. I don't think I was ever on the sections marked in that Exhibit with red hatch lines in Township 30, R. 23. I would like to say that in the early days, before the Railroad came through, in driving from Bakersfield to McKittrick, it is possible that in going directly west, we went through Elk Hills. I don't remember of doing so. We usually followed the line of least resistance and sought to go through a pass. During all the time I was in there I knew nothing about the Elk Hills. We now own some land in Section 28, a little south and east of McKittrick, but don't own any anywhere near the part described as Elk Hills. The land we own would be in the general range running to the Southeast, towards the Sunset field.

I am not familiar with the mountain range called the **[299]** Temblor Range. I have been through the mountain range lying to the West and Southwest of McKittrick once or twice, just passed through. We were there for the purpose of locating claims. My first venture was in developing new territory. In later years I was not so interested. I was interested in just the original claims we had located in the early days. We maintained a large number of them. Some we didn't. Some we obtained patents for, and disposed

of same. There was no new territory acquired. I took quite a considerable interest in the oil business in that period. I was interested in any new discovery on those claims, in a general way. I did not keep track of the general development of that oil territory except at McKittrick and in that vicinity. I was familiar generally with what was going on at McKittrick. I can't state that I was familiar with what was going on in the territory surrounding McKittrick. In later years, when so much development was going on, I visited McKittrick, but not as much as in the early part. The other territories were opened up after my interest ceased, to a large extent. My interest ceased, I think, in 1900 or 1901. I was at McKittrick a great deal then, but after that I only went out a few times. I know nothing whatever about the Elk Hills and heard nothing about them. **[299½]**

REDIRECT EXAMINATION OF H. M. SHREVE.

By Mr. Mills:

Q. Those hills east of the McKittrick in those days were not known as the Elk Hills?

A. I think not. That is a new name to me.

Q. By Mr. Lewers—You didn't hear anything about that country out there by any name, did you, while you were in there?

A. No sir.

Mr. Lewers.

Before you call the next witness, I desire the record to show that after the witness Jacob Kaerth yester-

day on the stand announced that he was willing to immediately go out into the Elk Hills with a representative of the defendants in this case, and after he left the stand we endeavored to make arrangements with him to go out there and point out the places where he found the ledge of asphaltum, or reefs, and oil seeps in Township 30-23, he having testified that the asphaltum reefs, as he called them, existed in numerous places in that township. That after leaving the stand, in response to our request to go out there and show our representative, he stated at first that he was willing to do so.

Mr. Mills—I want to interpose an objection to this gossip and tittle-tattle. If counsel wants to be on the stand and sworn and give us an opportunity to cross-examine him, we are perfectly willing that he make any statement he wants to. But this idea of testifying into the record from the mere statements of counsel, we shall object to as improper and entirely hearsay.

Mr. Lewers—I understand the reason for the objection. After stating first that he was willing to go, he later informed us after conference with the attorneys for the Government that [300] he declined to go.

Mr. McCormick—We want to put in a further objection and ask that it be considered as made at the time Mr. Mills made the objection that Mr. Kaerth is a witness and testified where he lived, and the process of the court is open to the defendant to subpoena him.

Mr. Lewers—All I know is he was willing to go at first and changed his mind for some reason. **[301]**

H. P. DOVER, a witness called and sworn on behalf of the plaintiff, testified as follows:

I live at San Pablo, or Richmond. I am 47 years old. I know what is known as the Elk Hills, in Kern County. I have been over those hills, the first time in 1903 or '04, sometime in the spring. There were five of us in the party; my brother, my father and Jack Anderson. I don't recollect the other. We went over to locate oil lands and located several claims. It is hard to say how many. I do not know that any of our Sections were in T. 30-23. We located two sections, I think, 25 and 26. (Witness indicated the township by pointing to the map, but did not testify as to the range and township.) In T. 30-24, there was a kind of blow out in a large gulch that went down through the country, which showed indications of oil on both sides, near the bottom of the gulch—of discolored clay and some sand. It showed a stain of oil, in my opinion. We detected it a little with ether. There was a smell in the rock, or in this clay or sand, but I couldn't pronounce it gas. It was more of a sulphur. I could not tell the extent of that showing in the gulch, it was a couple of hundred yards up the canon. We went up the canon on it.

I know where Buena Vista Lake is at the end of Elk Hills. The stained sand was in the Elk Hills. It was on Sec. 11, about six or eight miles West of the Lake. We had some locations that would be a

mile North and East of that seepage or oil stain—most of them on the slope.

I was in the oil business in the Midway a while. I am in the oil business today. I started in the oil business in 1901. While in that business I had occasion to notice the formation of the land through which we drilled. We did not find quite as much shale in the Elk Hills as in the Midway Field, but the formation, I think, was favorable for oil property. I have **[302]** not had any reason to change my opinion since that date.

The Elk Hills have no value for crop raising or agricultural pursuits that I have ever known of. For farming it was no good. It was rough and dry. Nothing seemed to grow there. In the spring of the year of a wet spring, there might be a little feed for a month or so. The chief value of the Elk Hills is for oil, if for anything.

I know a little group of hills, of more depressed elevation, South of the Elk Hills, called the Buena Vista Hills, on the map before me, which run in a northeasterly and south-westerly direction towards the lake. I have been there. In Sec. 11, T. 32, R. 24, there is a blow out. I judge it to be two or three hundred yards long where it crops out. I saw it in 1910. I made one location on one quarter section. The discovery of the gas blow out in the Buena Vista Hills influenced me in making that location. I am interested in one other Section in the Elk Hills; Section 30, I think, T. 30, R. 24. I think it is near the blow out.

CROSS EXAMINATION OF H. P. DOVER.

I first went into the Elk Hills in 1903 or '04, for the purpose of locating oil lands. I had been in the Hills before. I can't tell when. I worked stock there for Miller & Lux for years. I had been there on numerous occasions before I went in and located these claims. I first became interested in oil locations in 1901, in the Midway, on Sec. 25-32-23. At that time I began active prospecting for oil. We began to put down some wells on leased lands on Section 25, in the Midway. I had no other experience except in the Midway before I went into the Elk Hills and located in 1903. We went into the Elk Hills with a team and camped. We went in from what is Cole's Ridge, south and east of the hills. Didn't go in from Miller & Lux's headquarters at that time. **[303]** We came to a blow out which showed on both sides of the gully, or canon. I couldn't be positive as to what section that was in. I would say it was about Section 23. I can't tell whether the ground where the blow out was had been located before I went in there in 1903 with my father and brother to make locations, but there was ground all through there that was located at that time. I don't know as a fact how many locations we made on that occasion, but I think three or four sections. I judge it was sometime in May, or maybe later in 1903, when we made those locations. I don't recollect that we made a claim there known as the Crow No. 6. I couldn't be sure

we located a claim in Section 25, Township 30, Range 23, in 1903, I think it was the year after we located in there. I cannot fix the month we went in in 1903, it might have been as early as March, but I would take it to be later; along in May. It was not the first of January; not that first time we were in there. I did locate some land the next year, in January. My brother and cousin had been in there before we made those locations, a cousin of the same name, they were there before I was there. I can't say what time they were there. My cousin's initials were H. J. I knew J. L. Strowbridge. He was associated with my brother in lots of locations there. I knew E. J. Emmons, Charles Duval and J. A. Banfield. I think Emmons was in on some of our locations. Banfield and Duval were put on some other locations besides mine, if they were put on. They were not in there with me at the time we made locations in the Spring of 1903. I don't know whether they were in there before that or after. Strowbridge lived on what is termed, the Island, in Kern Co., and Banfield lived in Bakersfield. I shouldn't call my father a practical oil man. He has been in the oil business a great deal. I won't swear whether I made a location on January 1, 1903. I have no records. **[304]** I was in there in January one year, but my recollection is the first time I went in there was in May, 1903. My recollection is that I located all of Section 25, but I think Mr. Barlow and Hall and Tom O'Brien and a fellow named Schofield located that when it was located, 25 and 26. We did not do much of anything with the claims located, in

1903, only in Section 30, that we now hold under the oil locations. I think we located three or four, or maybe more. I didn't do anyhing in 1903 except locate and record them. I believe we relocated some of this same ground in January, 1904. I could not say how much. I was not with them at that time. We did nothing with it in 1904.

In the Spring of 1904, I lived in Bakersfield. The Californian, and, I think, the Echo newspapers were published there at that time. I read them both at times. I think I subscribed for the Californian, and saw the other from time to time. I was familiar with both of these papers more or less, in a general way. I don't think I was in Bakersfield during the summer and fall of 1904. I was in San Francisco for about six months, in bed, sick. I think I went into the Hospital the first day of May and came out in August. I didn't return to Bakersfield for two or three months after I came out. I stayed at Richmond. I didn't see many of the Bakersfield papers during that time. Cannot recall to my recollection whether I ever saw them.

I don't think that either I or my associates did anything at all with these claims in the way of development during 1904. If they were re-located on Jan. 1, 1905, I was not in on the locations. They might have been re-located. I, together with W. H. Hill, Tim Sullivan, T. N. Schofield and Thomas W. Brun, located the SW¼ of Section 25, T. 30, R. 23, but I cannot state the time. I located, I think, Sections 25 and

26, at that time, and that was all I ever located in that township. I don't know as I ever re-located them or had anything to do with them. I don't [305] know whether I drew out altogether. I didn't pay any attention to any more locations in there. I located in 24 in the Elk Hills I cannot state when. My cousin went there and located two or three sections, Section 30 amongst them, in T. 30, R. 24. That was a year or so later. They leased Section 30 to the Associated I believe, and they are working on it now. I did not do any work on any of these locations during the year 1905, more than to survey them and mark them out and locate them. No development work was done that year or in 1906 or 1907 that I know of. It seems to me that the land was leased to the Associated in 1908. Neither I nor my associates did any development work in 1908 that I know of. In 1909 they had some men on the ground. I sent money from Frisco to pay the wages of the men to dig gypsum or something; but I never saw the work done, and have not seen that country since. From 1903 to 1909 nothing whatever was done in the way of development work on those claims by me or my associates. I made no discovery of oil in 1903, or after that. They claim that they have got an oil well on Section 30 now. In 1903 or 1904, I did not know of any oil in the Elk Hills. I never saw any oil there, or other mineral; nothing but this blow out, and we located the territory because of it.

Mr. Schofield was connected with oil properties in the Kern River fields and at McKittrick. He was

a man of means. Mr. Sullivan and Mr. O'Brien had means. I guess they could have put money into the development of the property if they so desired. Neither I nor my father had any means. If the Elk Hills were not valuable for oil they would not be valuable for anything, in my opinion.

REDIRECT EXAMINATION OF H. P. DOVER.

There were four wells put down on Section 25, 32-23. One by the Sunset Co., New Richmond, Occidental Queen and Barton. **[306]** There was a little seepage of oil in Section 23-32-23. I saw it the first time in 1901. A man named Van Meter saw it the first time. It was not like the seepage in 32, in the Elk Hills. There was oil in 32 oozing out of the ground. Some of the old locations we had there were abandoned because of the slump in the oil business in Kern Co., and oil was a kind of drug on the market for two or three years. Nobody would put any money in oil property. I have had some extensive experience in the oil business in the Midway. We claimed that during the time of the slump referred to there was not much profit, even on developed property, in handling oil. Oil was selling very cheap, even in the Kern River fields. Tim Sullivan, Tom O'Brien and Schofield were interested in oil properties besides the locations we made with them in the Elk Hills. I heard Mr. Schofield say there was nothing in the oil business at that time, and he didn' feel like putting money into it.

RE-CROSS EXAMINATION
OF H. P. DOVER.

I don't know whether Schofield said there was probably nothing in the Elk Hills. That was never mentioned, whether there was oil in the Elk Hills or not, as a reason for not developing the claims. It looked to be pretty good territory, and looked promising to all of them. We believed, and thought oil was there, the same as we did in the Midway when we went in there first. We were taking a chance.

We didn't want to put money on the chance when oil was down that cheap. It continued down that cheap for four or five years. I held the ground after oil went up, but not with those people I was first in with. We have a well on Section 30. I didn't put it on. I leased it to people that did put it on. That was over in the next township. I didn't do anything in T. 30, 23. I was in three or four companies from 1903 up to 1906. **[307]** Was pretty heavily interested. Sec. 25-32-23. During that time I did development work on Section 25 and got patent, notwithstanding the depression of the price of oil. I started to work on Section 25 in 1901, just as the slump was going down. We started putting the wells down and went through and finished them. I think that was about all the development work done by the Companies I was interested in. We kept on the work on that Section and got a patent because we believed there was oil there, and knew it after we got it.

COLON F. WHITTIER, a witness called and sworn on behalf of the plaintiff, testified as follows:

My business is producing oil. I am operating in Midway, McKittrick, Oklahoma, Maricopa, on the West Side and in various places. I have had oil holdings near Coalinga. I have four producing wells in McKittrick; nine in Section 6-32-23; two in Sec. 24-31-22. I have others that are not producing. I cannot tell exactly what the total output of my producing wells was during last year, without looking at our books, but it was somewhere near a million barrels. I have been in the oil business a little over fourteen years. I first went to McKittrick in the summer of 1902.

I know what is known as the Elk Hills. They trend Northwest and Southeast. I know where the railroad gap is that comes down through the hills into McKittrick. I cannot say positively that the railroad crosses Section 14. There is indication of an anticline in the Elk Hills. I first saw it in 1902, from the railroad. There is some asphaltum showing in that gap, some oil sands—dry oil. The anticline is sufficiently marked to be seen from the train as it goes through. That anticline runs back through the Elk Hills, towards the Southeast. I know this because the apex of the hills show it. **[308]**

I have examined the shales, or sands, around McKittrick. The shales are practically the same as the shales in the Elk Hills. As to the sand in the Elk Hills, I cannot say that they are like the sand around McKittrick, because I have never seen the sand in the Elk Hills except where the railroad crosses. I have made personal examination of the anticline

where the railroad passes through the Elk Hills. I know generally the formation of the land from McKittrick down towards Sunset. I suppose I have been in McKittrick from 100 to 200 times in the last fourteen years, perhaps more. I know of oil seepages, or oil outcroppings, or sand, on the East flank of the Temblor range, between Sunset and McKittrick. There are quite a number of them back there—there is a large cropping in Section 14-31-21, one in 24-31-21, one in 19-31-22, one in 2-32-22, one in 1-32-22, one in 6-32-23 and several others between that section and Maricopa, but I cannot give the numbers of the sections. I know of asphaltum showings in 30-22, around McKittrick. I have examined it myself. There are some of these outcroppings which are directly back or south of the town of McKittrick, in the fault running from the northwest to the southeast and extending to the southeast, cropping very prominently in sections 34 and 35, in 30-22. I don't know positively of any oil seeps in the Elk Hills. In 31-24 I do. That is in what is called the Buena Vista Hills. I have been in the Buena Vista Hills myself. I found natural indications of oil there. It was a cropping commonly called a blow out, caused evidently by oil coming up through a crevice in the formation. The sand is not showing there. The oil evidently came up through a crevice in the shale—had come to the surface and dried out. It was showing quite prominently and I set it on fire and it burned for some two weeks. I consider the shales and sands on the

Buena Vista Hills about the same as those on the flank of the Temblor range and on the Elk Hills, as [309] far as I have examined them.

In riding to Buena Vista from Bakersfield, I have passed by the eastern end of the Elk Hills. I noticed an anticline running in a northeasterly direction, in 1902. I believe the Elk Hills have value for mineral; for oil. I discovered the seepages I have mentioned along in 1903.

CROSS EXAMINATION OF COLON F. WHITTIER.

I have been actively engaged in the oil business for fourteen years. I have had considerable experience in sinking wells.

I am quite familiar with the country surrounding McKittrick, and have been since 1902. I owned properties only at McKittrick in 1902, in Section 18-30-22. I prospected for oil myself during that period. I examined the country quite considerably. Never made any locations. Prospected to see whether I wanted any locations or not. I intended to make financial arrangements before I did any locating, if I found desirable property I would make arrangements to locate, if nothing else came up to attract my attention otherwise. I am interested in the oil business from a producing standpoint and not from a speculating standpoint. I made no locations in the Elk Hills. I partly made arrangements to do so in T. 30-24, throughout the township. I had talked with some personal friends of mine as to the situation and

intended to go in there and make some locations and do development work and get a patent to the land, but I was unfortunately crippled so that I couldn't go over there then.

I went into the Buena Vista Hills to examine properties for other people in 1902, but not into the Elk Hills. I was in the Elk Hills some four or five times prior to 1905. During these trips I found traces of the anticline I have men- **[310]** tioned. Both slopes of the anticline were revealed in the stratification. The northeast slope is the flatter of the two; it don't dip as steep as the southwest. I didn't find as strong or as frequent indications along the slope towards the southwest as I did on the northeast. The anticline does not slope to the southwest in the southwest portion of the Elk Hills. It does in the northwestern portion, near where the railroad passes through. Where the railroad passes through, I found indications of the southwest flank of the anticline. In the southeast portion it seems to have broken, and the formation on the southwest portion has slipped under. I considered it a true anti-cline. I made sufficient examination to satisfy myself on that point. On the west end I found both flanks revealed. Found no indications of slipping at the west end. I don't think it could have been an overturned syncline. In my judgment it was not. I concluded that the depth at which oil would be found was from 2500 to 3000 feet, and made a report in 1902 to some people in the east, who were operating on the northeastern slope of the Buena Vista Hills.

I don't think there was, in 1902, a general idea amongst practical oil producers that there was any limit as to the depth to which oil could be economically worked.

There was a general impression among oil men that oil could be produced from the depth of 5000 feet, but they were not equipped to go after it to that depth. They were equipped to go after it some 2000 or 2500 feet. 2000 feet at that time was considered as hard territory as 3000 feet today, or, perhaps 3500 feet. Appliances and methods have been improved so that it is now practical to economically sink to a much greater depth than could have been done in 1903 and 1904. I don't want any 4000 feet wells today. Too expensive.

A 200 barrel well drilled to a depth of 4000 feet, in **[311]** the Elk Hills, could be made to pay, of course, that would depend on the life of the well. The average life of a well in that vicinity would be from ten to fifteen years. There are wells that last longer than ten years, in the vicinity of McKittrick. They don't continue at a uniform production. They gradually go down. There are wells producing in McKittrick today that have been producing considerable over ten years. The average life of a well depends on the particular territory, whether it is a territory that is going to be troubled by water and the oil driven away or whether it is not. Frequently a well strikes a bed of oil sand that is not very large, or more or less dry. That affects the age of a well. Under ordinary con-

ditions, I think a well of 4000 feet ought to produce more than 200 barrels a day to make it profitable. It would depend on the gravity of the oil. It wouldn't pay to drill a 4000 foot well for 45 barrels per day. I wouldn't advise a person to drill that kind of a well. I think it to be a foolish venture in such formations as we have here in California.

REDIRECT EXAMINATION OF COLON F. WHITTIER.

It was the general impression of the oil men of my acquaintance around McKittrick, as early as 1904, that the Elk Hills would become oil bearing—would be proven to be oil bearing. Whether or not they could be made to pay, would be a matter of development. There were a lot of locations there at that time, but I didn't know of any drilling being done there then. At that time the law didn't require our going ahead and drilling. I regarded the oil character of the Elk Hills strong enough to warrant the expenditure of money in an attempt to prove its possibilities as early as 1904; I regarded it as being a good prospective oil field, and I was making arrangements at that time to get money together to locate some land and do the assess- **[312]** ment work which the law required at that time, and get our patent to the land and then await future development. An injury to my knee kept me confined to the house several years and that prevented me from doing that.

The life of a well naturally depends upon the thickness of the oil sands through which it is drilled. A

well with perforations in the casing 800 feet through oil sand would be longer lived than one of 40 feet.

I am acquainted with the life of wells in Kern River. The oldest well that I know out there is thirteen years.

From my observation I would say that the chief value of the Elk Hills is for oil, if for anything.

RE-CROSS EXAMINATION OF COLON F. WHITTIER.

The Elk Hills has not much value for grazing. There is nothing there to keep stock there long. They could not live while they were going across. There has been some sheep around through the country there. I don't know of any use that has been made of it. Never had my attention particularly directed to that. I was looking for oil. I didn't find any in T. 30-23. I regarded that as possible prospective oil territory. I thought oil might be found there; I considered that it justified going ahead and making locations and doing the assessment work and getting patents to the land. After a person had gotten a patent to the land, he could afford, with a lot of them chipping in together, to put in a test well. At that time we were just a little bit at sea as to whether or not a person could hold claims under locations and do development work, and if a person went in and made a discovery by drilling and found oil, they would have all kinds of contests over the title. My idea would be to do our assessment work and get our patent to the ground before we made any attempts to

drill for oil. All the time I had in mind the possibility that [313] we would find oil. We might have to go so deep as to give it up and not get it at all. I thought it was territory that at some time or other a chance might be taken on, and that was as far as I was willing to go.

REDIRECT EXAMINATION OF COLON F. WHITTIER.

From my observation of 30-24 and 30-23 and the Elk Hills generally, the conditions were such in 1904, or up to that time, to justify an ordinarily prudent man in the expenditure of money with the reasonable expectation of developing a paying oil property; so that I would advise at that time people with capital, who could afford to take the chance, to drill there to make a test. I wouldn't advise any person of small means, or even a person of large means, to make a test on a small piece of ground. That is why I advised the people who were operating on the northeast slope of the Buena Vista Hills to abandon their work. I have had no reason to change my opinion as to the oil value of those lands.

RE-CROSS EXAMINATION OF COLON F. WHITTIER.

It is not so much of a gamble now, because it has been proved that it is oil bearing at a great depth, but prior to 1904 I looked on it as a gamble. I would have had that opinion independent of the fact that oil had been discovered over to the West. Knowing the

oil formation of those fields as well as the Midway Fields—it is an oil formation. The gamble was not whether or not there was oil there, but whether it was there in paying quantities. All prospective oil land is not paying oil land and one cannot determine that without actually drilling wells.

REDIRECT EXAMINATION
OF COLON F. WHITTIER. [314]

The Elk Hills was no more a gamble than other oil ventures I was in or started. It was more of a gamble than it would be at those places closer to the croppings. Assuming that there is a cropping in Section 32, of 30-24, I would say that there was no more of a gamble in drilling in lands within two or three miles of that, or in that vicinity, than there was in other lands, not if it was a prominent cropping and showed distinctly the oil coming to the surface. In locating wells I have been influenced by oil seepages in the neighborhood. This was the case with reference to oil seepages in the flank of the Temblor range. I have found dry holes in drilling oil wells. I have found oil where I located wells with reference to seeps in the Temblor Range. I would consider an oil location five or six miles West of that oil seep I found in the east end of the Elk Hills much more of a gamble than one on the cropping on the Buena Vista Hills or the McKittrick Hills, although the outcroppings at McKittrick are very treacherous because the formation is bad, so bad that you can get a well, and 100 feet from that, not anything. Our Shamrock

well was drilled within 100 feet of a well drilled by the original owners, who abandoned the property and considered it no good, and our No. 3 flowed 1700 barrels a day for three years, only 100 feet away. It is because the formation is broken, tipping up edgeways, and faults will frequently prevent oil measures being discovered a short distance from the well. There are no indications of faults of that character in the Elk Hills, it is very much more even. I judge this from the surface. In McKittrick, it is on the surface, it is broken and shows the formation standing straight up and down. In the Elk Hills the formation is not broken so badly, and if the oil was originally there, it is there yet, but in McKittrick that is not so. **[315]**

FRANK BARRETT, a witness called and sworn on behalf of the plaintiff, testified as follows:

I am 67 years old. My present address is Redondo Beach. I have had experience in the oil business practically all my life, in Pennsylvania, West Virginia, Kentucky, Ohio, Texas, California and Indiana.

In California, I first went into the Coalinga field in the Spring of 1895. Was first in the oil business in 1862, as a boy, and since that time have been generally engaged in that business. I brought in the first paying well in the Coalinga field and shipped the first oil that was shipped out of there. I was interested in what was called the Producers and Consumers Oil Co., in Sec. 20-19-15, then the Home Oil Company. They operated in Coalinga. Then I

formed two or three other companies there, but have forgotten the names of them. I was President of two companies that were subsidiary to the Union Oil Co., for two years.

I know where the Elk Hills are situated, in Kern County. I have visited them. I first went there in 1899. I went there in the interest of a gentleman named Hilbish. As near as I can recall now, there was a firm in San Francisco, Baker & Hamilton, either had acquired or were to acquire lands down there, and Hilbish had some connection there and he wanted to go into the oil business and wanted to form a company, and he paid me $100.00 a day and my expenses to go down there. In pursuance of that contract, I went down there in 1899. I rode over the entire township diagonally. I came from McKittrick by rig at that time. I think they then called it Asphaltum. I went through the Elk Hills and came back to the south of the hills, beginning at the East end of the hills, through what is now called Elk Horn Valley, to McKittrick. The general direction of the Elk Hills was Northwest and Southeast. I found **[316]** those oil indications. I found two or three places where there had been seepages, and, of course, you could see twice as big as your hand on the side of the formation, where, perhaps all of the lighter properties had evaporated and you could see it there and scrape it off with your knife. It was not asphaltum; it was oil. Then I took some of the outcroppings home with me, and, from the smell you could just

get a little odor of oil, but when I crushed it at home and applied the chloroform test to it, I got traces of oil out of it. I wouldn't be positive that it was in Section 17, but I think it was, where I found the seepage. One of Miller & Lux's men was with me to pilot me. He told me, I think, it was in 17. It was in T. 30-24, near section 23. From my examination, I believe these lands to be good oil bearing territory.

I knew of asphaltum outcroppings around McKittrick, the oil springs over there, previous to that time. In a measure, my opinion was made up partly from the oil croppings there and the seepages in the McKittrick region, more positively so from the formations I had gone through in the Coalinga field.

I noticed very pronounced indications of anticlines in the Elk Hills. I know where the railroad passes through the gap there. I don't know the sections it is in. I noticed a pronounced anticline there. It was at the Northwest end of the Elk Hills. I think the trend of the anticline was to the Southwest. At the Northwest end of the Hills I would say they would go southeast. I don't think the characteristics of the formation of the Elk Hills are at all dissimilar to the formation around McKittrick, and not dissimilar to that at Taft and Maricopa.

Oil lands in the different fields that I have operated in California are worth about $300.00 to $3,500.00 per acre. I have dealt in oil lands in California myself. Pretty hard [317] question to say what Sections 15,

17, 19, 21, 23, 25, 27, 29, 33 and 35, in T. 30-23, in the Elk Hills, were worth. Without any producing wells on them at all, their value would not be measured as high as if there had been producing wells on them, but they ought to have been reasonably worth $200.00 to $300.00 an acre as oil lands. That is what I believe them to be.

As to their value aside from the oil value, I don't think you could raise a black-eyed pea on them. I wouldn't have them to pay taxes on them for agriculture. I don't think they have any value at all for agricultural purposes—for raising crops. As to their value for grazing, I suppose when the winter rains occur, the filaree would grow up there, but it would not last very long, probably not over six weeks or two months, in a very good season.

As to the topography of those lands, the lands immediately adjoining the Elk Hills, in some places it is a little broken. In others the formation seems to be uniform. I think a New England farmer might have made something out of them, but not a California farmer. The absence of water would be a deterioration of the value of the land—it was the California desert climate.

I made a report on the land, and a favorable one, in writing. I recommended the lands as good oil bearing territory, and have had no reason since that to change my opinion.

CROSS EXAMINATION OF FRANK BARRETT.

I gave the report I made to Mr. Hilbish and kept

a copy, which I afterwards sent to him. I was in McKittrick three days at that time and was then on the territory both East and West. I spent only two days in the Elk Hills and then I went to the other, and I saw what I thought satisfied me and I spent an extra day that I didn't charge for to see the other portion. [318] I didn't recommend any particular portion of the Elk Hills. He just asked me to go over T. 30-23 and see if it would be good oil bearing territory. That was the section to which my attention was particularly directed. I think the seepage was found in Section 17. I cannot be positive about that. The man from Miller & Lux's ranch told me it was 17, and, as near as I could measure by my riding, I believe it was. The oil seep was in a gully. I saw it only on one side, down near the bottom of the gully. There was no cabin in sight of the oil seep. It was not in Section 32-30-24. If I was in T. 24 at all, I was simply on the edge of it. I believe it was six or seven miles from Miller & Lux's headquarters. I can't recall how far it was from the ranch. It might have been four miles. I cannot recollect the exact distance. If my memory serves me, it was a little North and West from the ranch. I think we found two or three section corners, not marked. I think one corner was very close to this oil seep. As to whether the territory where I found the oil seep had been surveyed and marked out, I will say that there were section corners there on the North half of that Section. I don't recall whether I saw any on the South Half or

not but I think not. I mean the North Half of the Township. I think there were corners on the North Half of Section 17. I can't be positive of that. I was on the North Half of T. 30-23 and found some section corners there; some on the hills and some on the flat. I had my field glasses with me and we would ride along and this man with me would say we have ridden two or three miles and he would point out "there is a section corner" and we might have passed one. I don't believe I can tell whether he pointed out any section corners after we left the North line. I never expected to hear anything again about it and never charged my memory with it at all. I think we saw section corners before he told me we were in Section 17. I located this **[319]** section and this man told me that we were on it. By riding along I could measure the distance and could tell—by the horse walking and could tell—that we had gone a mile from the last section corner, which was marked. I saw the corners. I don't know who put them there, whether it was the Government or somebody else. I found some three or four seepages where oil had seeped out and caked. All of the lighter properties, of course, had evaporated. I couldn't tell how many were there, but there were three or four. There was one blow out that I saw that was a live seepage with actual oil coming out of it. It was not in the Buena Vista Hills or the McKittrick Hills. It was in the Elk Hills. To the best of my recollection it was in Section 17. I couldn't answer how far from that

indication we saw in Section 17 it was to the nearest other indication. It is hardly possible that these oil seeps that I refer to were in an entirely different township, because I was not in a different township at that time. I was on the edge of 30-24, but I was not in the township.

I observed a very prominent anticline. It was most prominent on the apex of the ridge. I could see both sides of it. I had a very powerful pair of field glasses and could stop my horse and look over the country. The anticline did not, in my opinion, correspond entirely with the apex of the hill. I saw stratification revealed there showing the slopes of the anticline. They dipped Northeast and Southwest. I couldn't tell now at what portion of the Elk Hills I found any dip or stratification to the Southwest. I am certain I saw such a dip, but don't recollect where it was.

In my report I didn't recommend the locations of ground in any specific portion of the Elk Hills. The gentleman who sent me there, told me he wanted me to ride through that township and make a report. I don't know where his lands **[320]** were or where he was going to get them. That was before there was an excitement at all at Bakersfield. There was a well drilling there on the Kern River. I recommended the entire South Half of the township as good oil bearing territory. Well in fact, I recommended all—odd and even numbered sections, one as well as the other. I don't know whether he ever made any locations. I

know that he formed a company. At the time I was in there, I didn't know of any oil deposit underneath any portion of the Elk Hills. I only knew from surface indications and I believed they were there, but I didn't know they were there. I believed the country might produce oil, and I was examining it with reference to its character as an oil prospect. I knew of no discovery of oil in the township and heard of none. I could not have said "this is known oil territory." I could only have said that, in my opinion, it would prove to be such. My experience extends back pretty nearly to the time the first oil well was sunk in this country. I have seen promising oil territory develop—not oil—but I have seen them throw out what was pretty near as good as oil—gas—plenty of it, that was utilized for manufacturing purposes. I have observed promising indications very frequently that didn't pan out. The oil business is a good deal like elections. I don't think the percentage of failures in the oil business is greater than 50% if it is gone into intelligently and systematically, but, still, at the same time, you can't—well, I will illustrate to you. In one section a well down 3200 feet and no oil; the next section to it, 250 feet, and good producer. A high priced expert couldn't see a bit deeper into the ground than another. The oil doesn't always appear where they say it will. The true expert is the drill. You couldn't say that a territory is known oil ground till you put a drill in it. It is not known till it is proven. I have had experience, on the side,

of lode mining, [321] or placer or gold mining, to my sorrow. I found it a good deal more uncertain than the oil business. I knew more about the oil business. I am not of the opinion that a practical oil driller has just as much chance to tell where oil is as a scientific geologist, because a good practical driller may not know exactly where to locate his well, while a man who understands the formations and the topography of the country, and all that, will locate the well and then he turns it over to the driller. Of course, there are many drillers that are theoretical, as well as practical men, but if you take the average of them I am not certain. I have known numerous instances where scientific men have pointed out where wells should be sunk and those wells have been sunk and nothing produced. That is not at all uncommon.

REDIRECT EXAMINATION OF FRANK BARRET.

I am acquainted with the formation around Asphalto. It is somewhat broken. It is the experience of oil men, where lands have been faulted in an oil formation, that they may find a well on one side of a section line and on the other side no producer whatever. This would be due, in a measure, to the fault in the formation. You take the Coalinga field on the North Half of Section 20, the Producers Oil Co., have operated on the NW¼ and the Home Oil Co., was on the NE¼. The Home Oil Co., had an 800 barrel well. On the South Half a half dozen wells drilled

and no oil. But immediately on the South of the Section, of Section 20, they found oil. It might have been due to a fault in the formation, and it might have been due to a dyke and intrusion. I noticed no indication in the Elk Hills of any faulting or dyke. It was pretty generally uniform. There were some little breaks. The chances are 10 to 1 that there is more chance to find a presence of oil sands where [322] the formation is regular.

As a general rule, I find those geologists conservative, except some that are on the speculative order. I don't think one man could see deeper into the ground than another. Of course, he has to base his calculation on the angle of the dip. I am no geologist. Any experience a man would have in the Eastern fields would not benefit him in this field, because there is as much difference between the formations as there is in the character of the oil. You will find a paraffine base there and the asphalt base here.

RE-CROSS EXAMINATION OF FRANK BARRET.

I believe the formation I saw on the surface of the Elk Hills to be a formation that produces oil. I believe the topography of the country—the outcropping, and the shale—it is the formation in which oil comes. I believed oil was there. Of course, the oil would come from a formation entirely different underneath the overlaying surface formation of the Elk Hills. I was not able to determine from my examination of the surface of the Elk Hills, in what

position the underlying formations were. It would be pretty hard for anybody to do that. I could not, in the least, tell whether they were faulted or not. Could only judge as to that.

REDIRECT EXAMINATION
OF FRANK BARRET.

From the conditions I saw on the surface, I believed the formations to be generally uniform, but a formation is liable to buckle and go right up. [323]

M. T. HUBBARD, a witness called and sworn on behalf of the plaintiff, testified as follows:

DIRECT EXAMINATION.

I am 64 years old. My present occupation is that of Civil Engineer and Surveyor. I first entered into the business, packing a rod and a bucket of grub, in the Winter of 1864 and '65 in surveying parties on the Central Pacific Railroad. Since that time I have been in the surveying business more than in any other.

I have had experience in surveying lands in California. I have surveyed agricultural lands, oil lands, railroad lands—railroad lines, rather—irrigation ditches. I have surveyed oil lands in Kern County. In the Devils Den Country, the Temblor District, the Belridge District, the McKittrick District, the Elk Hills, Midway, Sunset and Kern.

I have never made a study of oil formations as a business, but it is natural for me to observe indications of oil in an oil bearing territory, and of lead in a lead bearing territory, and silver or gold in their

respective territories. I never examined the Elk Hills particularly as to their formation. I made a survey of the Elk Hills in 1901. Surveyed nearly all of T. 30-23. The South Half of that township lies in the Elk Hills; practically all except the North tier of sections. I was surveying for private parties. A man named Sidert engaged me to make the survey. Previous to that time I had done work for the Surveyor General of California. My contract with Mr. Sidert did not come through the Surveyor General's office.

I surveyed the lines of the location of placer oil claims there. I made a memorandum map of the locations at the time. I have the map with me, which I now produce. This is the map of my work. The locator's name is on each quarter section; and this memorandum is some that I didn't have the names of the [324] locators. I had given them previously to Mr. Sidert. Didn't have them at the time I made this map, and I made a memorandum in pencil so he could fill it in, but I see he never did so. I merely ran the lines and found the corners of each quarter section.

Thereupon the map thus referred to was offered in evidence on behalf of the Government, and marked "Plaintiff's Exhibit M."

The witness continuing, testified as follows:

While making the survey, I noticed that the land was very much broken. I didn't consider that it had any value whatever for agriculture. It was too steep, rocky and rough. That is, it had bouiders in it. I don't think a person could find, in the whole town-

ship, 160 acres of land that he could plow. I refer to the part of the township that I was over and made the locations on. My survey was in that part of the township which was in the hills. I found no water there and very scant vegetation. Filaree, a kind of grass that grows around the hills there, and foxtail, is the principal grass that comes up. I saw no brush there to amount to anything. A few little bushes. I know of asphaltum deposits, or oil seepages, in 30-22, near McKittrick, in the township to the West of the township I surveyed. I never measured them to get their yardage, but they are very extensive. I have noticed other evidences of oil or asphaltum on the eastern flank of the Temblor Range, in a westerly direction from McKittrick. At that time there were oil wells around McKittrick. There were no oil wells at that time along the eastern flank of that formation, from McKittrick in a southwesterly direction towards Sunset. They had just commenced boring for oil in the Sunset District. I didn't see any oil wells North of McKittrick very far. They were in the immediate vicinity of McKittrick. **[325]**

I noticed evidences of an anticline from McKittrick North, clear up to the Temblor District, there are evidences of an anticline all the way into the hills. That anticline, I should judge, would strike into the Buena Vista Hills. Since then there has been an anticline found to the East of McKittrick that would strike through the Elk Hills.

I noticed, at the time I was at McKittrick, a gap

in Section 14-30-22, where the railroad goes through. I saw that in driving over it. There is evidence of a pronounced anticline running over the Elk Hills. The reason I say it is pronounced, in driving over it, parties that I was with called my attention to it at the time, and I didn't get out to examine it. I never examined it for the purpose of finding out which way the apex of that anticline, or its axis, trended. I didn't visit the Buena Vista Hills at that time.

In the manner that I came in there, and what I saw from the road, and that afternoon I went up into the oil wells from McKittrick, and I thought they went across into the Elk Hills, but it was just an opinion from looking along the croppings of the anticline. I formed only a superficial opinion as to the oil bearing nature of the country there. I thought there was a very good probability of the lands in 30-23, which I surveyed, proving to be oil land. I have not changed that opinion. I have been more confirmed in my opinion now, from observations that I have seen in that district and others to the North and South of it. If it has no value for oil, I don't think it is worth anything.

CROSS EXAMINATION
OF M. T. HUBBARD.

I don't know whether it has any value for oil or not. If it has not, it has no value whatever. I wouldn't pay 1-10 **[326]** part of the taxes for the whole of it. If I owned it and had been foolish enough to give the Government $1.25 an acre, I would try to get some-

thing out of it; and if a poor Dago came along and offered me 5 or 10 cents an acre for it, I think he would get soaked, and I would take the benefit of it. I have not noticed that some Dagos have grown rich in the Elk Hills. I have never seen any there only Miller & Lux's Dagos. If they got rich it was outside of the Elk Hills.

I got the names on the maps from Mr. Sidert. I could not tell where he got them. He gave me the location notices and I found the corner stakes, and myself and another man put up stakes 15 or 20 feet inside of the sections, and built a mound of earth and put the stakes into it and posted those notices with the names on. I didn't make the locations, I was merely the instrument in finding the stakes, and the man that was with me built the mounds and stakes and put the location notices on them. I saw two of the men whose names appear on that map on that ground. There might have been more, but that was all I saw. I don't know anything about any of the persons named on the map outside of the two I have mentioned, ever being on the ground. I don't know whether they did any work there or not. I couldn't say whether they did any development work or not. All this map stands for is a list showing all the names that I and the other man put on the location notices of that ground. I didn't look for discoveries of mineral. Didn't try to find any. I didn't know of a single discovery of mineral of any kind or form made on these locations. I didn't see any.

I didn't look to see asphaltum reefs. I was looking for section stakes. The surface of the country was very rough and rugged. I examined it as I ordinarily do in going over a country. I didn't look for any oil seep. I didn't make the locations. I don't know whether the locations were made in **[327]** Bakersfield or elsewhere off of the township or anything about it.

REDIRECT EXAMINATION OF M. T. HUBBARD.

It is not customary for surveyors employed as I was to make locations for themselves or their own benefit. If it had been entirely proper at that time to do so, I undoubtedly would have made locations for myself.

N. C. FARNUM, a witness called and sworn on behalf of the plaintiff, testified as follows:

DIRECT EXAMINATION.

I am 57 years old. My family live in Oakland, but a good deal of the time I live in Bakersfield. Not all the time. I have made Kern County, California, my residence or headquarters for about thirteen years. My business interests are largely located in that County. I have been engaged in buying and selling lands and in contracting, and the manufacture of brick. My business has been mostly connected with oil lands. In July, 1899, I became interested in oil lands in Kern River field, through purchase from the Railroad and other owners and also by locations. In the same year I purchased some lands North of Mc-

Kittrick and located a large tract of land to the East of McKittrick. Also, in that year and the following, I purchased some railroad land to the Southeast of McKittrick. I have been generally in that business since that time. Almost continuously. We have oil property in 28-28, have land in 30-22 and 28-20, and are interested in some oil companies along the West side, by the reason of owning some of their stock. They are the Straud Oil Co., the Sunset Security. I believe that is all that I recollect now. Those companies are engaged **[328]** in the oil business in Kern County. We have 26 wells on Section 21-28-28, Kern River Field; we are drilling a well on Section 36-30-22; we have 80 acres in the Belridge district in 28-20; 80 acres in 15-28-22; 160 acres in 11; 80 acres in 4, and ½ interest in 20 acres in 17-28-28 and 320 acres in 11 No. 20 W., S. B. M.

I am acquainted with Mr. Blodgett, who was on the stand during the past week, and the associates he mentioned as having made locations in the Elk Hills. I knew them all. I knew a man named Silas Duee (Drouillard).

I first became interested in what is known as the Elk Hills in Kern Co., in December 1899. That was the North group of Hills, just East of McKittrick. There are two groups of hills East of McKittrick. The Elk Hills are the more northerly. They lie in a district East of McKittrick extending to Buena Vista Lake. I was in the Elk Hills in 1899. First went there with Thomas Brown, who was superin-

tendent for Miller & Lux and was located at their headquarters' ranch just north of the Elk Hills. The reason for my going there was that I had discussed that country with Mr. Brown, knowing that he was thoroughly familiar with it, this first conversation taking place in Bakersfield, and he requested me to go out with him to the ranch and we would get horses and ride over the hills together, and make an examination of them. That was after the Kern River excitement. The first well in Kern River was brought in in May, 1899, and this occurred in November, 1899.

I made a detailed examination of the Elk Hills at that time; we rode over them pretty thoroughly. We went over the whole hills. At that time we did not know what township they were in, but we visited nearly every section of it, I suppose, at that time—we were over nearly every section. We made a very thorough investigation, looking for oil sands that might **[329]** crop out, or gypsum—anything in the way of a material upon which we could base a location, with a view of taking the land up, under the placer act.

I went to a place indicated by Brown, where I found what is termed, brea, which is material that oil has been in there once, but has dried out—evidence enough to me that there had sometime been some oil in this piece of ground, on the surface. That was in a canon, it extended quite a distance down the canon from what is often termed a "blow out" or gas fissure—probably was a gas fissure; and to the

North of it the anticline is exposed, and to the South of it, this gas blow out.

The slopes of the anticline were very perceptible on both sides. One dipped to the Northeast and the other to the Southwest. I afterwards determined the location of the oil sand I have mentioned to be in Section 32-30-24. During the examination I made with Brown, I didn't find any other indications of the existence of oil at any time in those hills, other than those I have mentioned. We found to the Northeast of this sand in 32, evidence of an anticline, from the fact that the land was somewhat different, in a direct course running Northwest and Southeast. This land was mineralized by gypsum and fuller's-earth.

The anticline appears to follow the ridge of the country, the backbone, from the Southeast to the Northwest, leading up to and connecting onto the hills immediately North of McKittrick.

I am very well acquainted with the gap the railroad comes through to McKittrick. It is in 14-30-22. There is a well defined anticline there. I didn't discern both slopes of the anticline there. You could see the northern slope of it. There is evidence of waste oil there; dry oil in the sand there. **[330]**

The sand at the oil seepage in 32-30-24 had been saturated with oil. I tested it.

I have been on a great many visits to the Elk Hills besides the one I have referred to. I was there three times before Dec. 12, 1904. I made examinations during those different visits on each occasion. I went

there for that purpose. We proposed to locate them before the first of January, 1900. I took other means of satisfying myself about the hills aside from my own personal examination. At the conclusion of my examination, in 1899, I was satisfied that there was a fair chance of getting oil there.

I was all over T. 30-23, in the hills and on the flat I think I went over every one of Sections 15, 17, 19, 21, 23, 25, 27, 29, 33 and 35, of 30-23. The opinion I have mentioned as to the oil character of the lands in the Elk Hills included the lands of these sections, and, also the even numbered sections between those odd numbered sections I have described.

In addition to my own examination, I had the opinion of William Youle as to the character of the lands. He was Superintendent for Jewett and Blodgett in the oil business on the West side of Kern County, and was regarded as a mining and oil expert, and I so regarded him. He had charge of all the holdings of Jewett and Blodgett on the West side; a great many sections of land that they had leased from different parties, covering a good many thousand acres. At that time they were the most extensively engaged parties in Kern County in mining and developing lands for oil.

Mr. Youle made an examination of the lands in the Elk Hills at the request of Solomon Jewett, Mr. Blodgett and myself. They were interested with me in my enterprise in the Elk Hills. This was preliminary to proposed locations under the placer act. Mr.

Youle's report was made to us verbally in Bakersfield. He made **[331]** a very favorable report to us —stated that there had undoubtedly been oil in this canon, on Section 32-30-24, and that the country between there and Section 14, in 30-22, where the anticline is exposed by the action of the water, had the appearance to him of oil land, and, having the indications at the Southeast and the one on the Northwest led him to believe that there was an opportunity to develop oil there on the ground.

I am acquainted, from my examination and personal observation with the character of the formation in and about the West side field where oil has been proven to exist. There had been development of oil along the eastern flank of the Temblor Range from North of McKittrick two or three miles to the Sunset field; a well defined anticline to the West of McKittrick, extending for four or five miles from Section 27-30-22, to up through Section 10-30-21. At the time I thought the Elk Hills was a spur from the Temblor Range. I have heard it variously discussed by people who claim to be geologists, that it was such a spur, and I have heard that controverted by others who were supposed to be equally well informed, who claimed that it was an anticline laying forward or superimposed on the McKittrick anticline. At that time the development of oil in the McKittrick and Sunset fields and the land intervening along the flank of the Temblor Range was in the hills. The furthest well to the Northwest at that time was a well of the

U. S. Oil Co., on Section 6-30-22, to the Northwest of this seepage on Section 32-30-24.

The examination I had with Mr. Brown, the oil sand I have described as having been found in the formations I have mentioned, the strike of the anticline, the development of the hills on the eastern flank of the Temblor Range and the general character of the uplift in the Elk Hills, had an influence in fixing my opinion as to the oil character of the Elk Hills. **[332]** That was what first attracted my attention to the Elk Hills—its proximinty to McKittrick, laying in the position they did to the McKittrick anticline. I formed the opinion absolutely that the territory in the Elk Hills was oil territory at that time. I have had no reason to change that opinion since, and still believe it to be oil territory. The fact that operations were confined to the hills rather than to the flats, called the attention of oil men to the possible character of the Elk Hills, in 1899. The universal custom outside of the Kern River field was to drill as near to the anticline or the foot of the hill as you could set a derrick. Most every one was afraid to go out in the flat from the fact that we had all been told, and believed, that the oil might be from 5000 to 10,000 feet below the surface. There was no development in the Elk Hills in 1899. Since that time there has been development; several of them. There is a well on Section 30, of 30-24 and a well on Section 26, of 30-23.

There was oil excitement all over Kern County in

1899 and 1900. I recollect the excitement very well. It began immediately after the discovery of oil in the Kern River field, which was, as I recollect, in May, 1899.

I know that the Southern Pacific Railroad Co., was at that time having its lands examined and segregated by an oil expert for the purpose of withdrawing the land from the market. I talked with Mr. J. B. Treadwell on several occasions, during the years 1900 and 1901, in regard to purchasing oil lands from the Company. He had charge of the Southern Pacific oil development in Kern County. That included lands which fell to the railroad by the grant of July 27, 1866. Mr. Treadwell was general superintendent of oil matters for the Company down there. He drew checks for the payment of bills, ordered work done and material bought, and he told me that he reported very strongly [333] to the Railroad Company against the selling of any of their lands, and that if he had been in the position, or on the ground, we would, none of us, ever bought any of the oil lands from the Railroad Company.

At the time of the oil excitement, the Railroad had disposed of all its lands in T. 28-28, with the exception of, I think, some in 3, where Mr. Treadwell had his oil camp and was drilling. After that we could buy no more land; it was all sold in that field. Then we commenced to look over the balance of the local oil field in Kern County to get other land from the Railroad Co., at the price of $2.50 an acre that we paid

for the land in the Kern River field, where we bought about four sections, I think; and we turned our attention to the land around McKittrick as the next most likely place. We looked the country over from McKittrick Southeast to Sunset; made application for four or five sections at that time. Two of them we were able to purchase; the balance of it the Company declined to sell. We did the business with Mr. Jerome Madden, land agent for the Southern Pacific Railroad Co. He said that the lands were withdrawn from sale by orders from New York.

On the strength of the report I have mentioned as coming from Mr. Youle and on my own personal observations, we made locations in the Elk Hills. We located all of the land in T. 30-23, 30-24, 31-23, 31-24, that was not patented at that time, both odd and even sections. We spent money in making those locations and in attempting to perfect them. We discovered on investigation at the Visalia Land Office, that much land in all four of these townships was unserveyed. We immediately took steps to have the land surveyed that we might locate it properly, by setting stakes in each corner and center stake in each section, mounding the land at the corners and placing location notices on each 160 acres. To my recollection **[334]** about 42 sections were included in the 100 locations we made. We purchased locations in 30-23 from Drouillard and his associates. When we started to locate the land in T. 30-23, we discovered upon portions of sections 15, 23, 24, 25 and 26, locations that had been placed there about one month previous to the time we started to locate.

M. S. Wagy, Si Drouillard, Tom Baker, Jeff Packard, Roy Wagy and Charles Lamont were the locators of the land I have just described. I am not positive what we paid for M. S. Wagy's interest in those lands. I know we paid quite a sum of money; but we didn't buy the interest of all of these locators. Mr. Baker's, Mr. Lamont's and Jeff Packard's interests were transferred to the Wagont Oil Co., and represented by a certain amount of stock. The other locators, the two Drouillards wanted to go to northern Nevada to mine. We paid them cash for their land. We also paid the two Wagy boys. My idea is that we paid out about $3,200.00 to those four locators. I am not positive in regard to that.

We kept up the locations we made until 1906. We built some roads through the country, as it was necessary to get into our camp and cut over the land, which was very rough, and had men dig holes, which at that time was considered doing assessment work. That was the universal practice in Kern County. The annual assessment work consisted of building roads, digging holes, six, eight, feet deep, six by eight or ten feet square. That was considered work enough to hold 160 acres. We established a camp there, and maintained, at all times, at least one man there, sometimes as high as a dozen. We had to keep their camp supplied. Where we had this camp it consisted of a one-room house about fourteen feet square, and a stable about the same size, as we had to haul our water into the hills for the animals we had there, for the men, all our feed and the provisions. We had to have a road

that we could get a wagon [335] over. At the termination of two years, our land having been recorded on the first of January, 1900, we re-located in 1902 and 1904. It was sufficient to have men—considered sufficient to hold the land at that time. We followed the custom. I have been told custom makes law—but I don't know whether it does or not. So we followed the law the other fellows did; and none stopped us. And, as a general rule, most everyone respected the other fellows' locations.

When we first began those locations we had surveyors in there. About twenty or twenty-five men—perhaps thirty. I have forgotten how many. I know there was a big lot of them. We wanted to make them in a hurry, because there were several trying to do the same thing; and, as a general proposition, we got ours on first. We saw to that. Our object in making these locations was to acquire land for development, as we sincerely anticipated doing. We made arrangements to carry out our purpose in actually drilling for oil. We had a drilling outfit, derrick and complete outfit on Sec. 24, T. 28-28, in the Kern River field, where we had been unable to find oil and got water, and we had instructed Mr. Youle to move that rig from Kern River into the Elk Hills to prepare for drilling. That was the purpose of all my associates. That was the universal wish of the company. We were prevented from bringing the rig over from the Kern River field because the Government had at that time just withdrawn, or about that time, had withdrawn, this land.

In 1902 there was a very perceptible depression in oil. There was a great shortage of cars. In 1900, '01, '02, '03 and a portion of '04, I was engaged in the manufacture of brick, as among my other occupations, and was quite a heavy user of oil as we burned our brick with oil. In that period of time I manufactured and sold twenty-five million of brick in Bakersfield, and we frequently had great trouble in getting oil **[336]** into the yard in time to save our kilns. I, on several occasions, went to Mr. Burkhalter personally and stated the facts to him and he very kindly ordered S. P. cars that were loaded with oil set out on our spur that we might use it, I sending the cars back to the Kern River field and having them loaded with oil for the Southern Pacific account and paying for the oil in that way. This occurred during all those years, and very frequently. It made it very difficult for us, even as the Company was with us, to keep our plant supplied with oil. The lack of Railroad transportation and facilities had something to do with the general depression of the oil business.

I had a great many people who were interested in oil properties look over our lands in the Elk Hills, during the years 1900, 1902 and 1903. Among them a man named Bartlett, from Boston, who was then interested in drilling some wells in the Sunset fields on Section 2. I have forgotten the name of his Company. He came to me in Bakersfield and expressed a wish to lease some of the Wagont Oil Company's lands. We drew up a lease that was satisfactory to both parties. He stated he had a number of friends

in Boston with means sufficient to drill wells and they were anxious to and would lease this land and drill it. I don't remember who he had as an expert. He had an expert with him who made an examination of the lands I have described in the Elk Hills, including our holdings in 30-23. Mr. Bartlett stated to me that the agreement to lease those lands was based on the report made by that expert. The arrangements were not consummated and they did not start drilling on those lands when they discovered that the lands were withdrawn by the United States Government; they discontinued to spend any money there. He was one of several who tried to interest themselves in the same land, in the same way, and with the same result.

I know Mr. Hilbish, spoken of by Captain Frank Barrett **[337]** on the witness stand the other day. I considered him no oil man. In 1900 he owned Sections 11 and 12 in 29-21, North of McKittrick. They were out on the flat about four miles North of the range extending through townships 30-24, 30-23, and 30-22, along this Elk Hills anticline. We didn't consider them oil lands. We thought when they started to drill there that they were—had more money than they knew what to do with.

Mr. Hilbish was interested in the oil business. He owned that land and was the largest stockholder of the Co., but unfortunately for them, when they got their well down some seven or eight hundred feet, their treasurer ran away with $10,000.00 of their money

and they stopped work, and, as the condition of the oil market was then very low and they were then seven, eight miles away from the nearest transportation, they didn't do anything more with the land. Mr. Hilbish went to the Philippine Islands, and died there. His land was sold for taxes in 1905, I think, for a nominal sum, to George Hay, a man by the name of Eyrod and a man named Jordan. About one month ago one of the members of the Esperanza Oil Company bought a portion of that land and paid him $350.00 an acre for it. It was good grazing land. They are drilling an oil well there now. He purchased it for oil.

I made an attempt to purchase lands from the Southern Pacific Railroad Company—I think, in the winter of 1900 or in the early part of 1901. Mr. Madden declined to sell the land. That was Section 25, of 30-22. He stated that the land had been withdrawn from sale, under orders of the Southern Pacific expert or his subordinates. We had purchased the locations in 26-30-22 from a man by the name of Hotchkiss and N. P. Chipman, paying them $1,000.00 for their locations, and we immediately took possession of the land, fenced it, put up four derricks and spent several thousand dollars there. After our **[338]** hard times in the oil company, we let the land lay idle, but kept a man in possession all the time, paid our taxes on the improvements we had on the land, and in 1899 started drilling and now have a well down about 2500 feet. We were desirous of having this patented land lying to the West of us, adjoining us, to give value to our

located land. At that time we desired to put it in the Company and sell stock enough to drill the land up.

I met J. Owen, who has been characterized here by some of the witnesses as an oil expert for the Southern Pacific Railroad Company. I was introduced to him in Bakersfield about the beginning of 1903, by my son, who had known him some time; and after I had been introduced to him in Bakersfield we talked a little while and I said to him: "Mr. Owen, I presume I have you to thank for the loss of the land in Section 27 in 30-22," which we had located and formed the Washington Oil Company, in the early part of December. We located that land in December, 1899. We fenced the land with a two wire fence, and put three derricks up—one derrick on the NW¼, one on the NE¼ and one on the SE¼. The SW¼ and SW¼ of the NW¼ was patented to the Southern Pacific. The balance of the section, according to the records of the Visalia Land Office, at that time, were government lands subject to location. We so located, fenced it as I have stated, put up the derricks, and within a short time a gentleman by the name of Rial, from San Diego, who is an attorney there, came to Bakersfield looking for location of land on which to drill wells for a company that was formed there. We made him a lease on this Section 27. He started drilling and drilled a well to the depth of about 800 feet, at which time he, as well as ourselves, were notified that the land had recently been patented to the Southern Pacific Railroad and we were requested to leave.

After I had accused Mr. Owen of being instrumental in taking this land away **[339]** from us, he stated that Mr. Treadwell was responsible for that, as it transpired as he came into that field.

We discussed the country around McKittrick. We were then at work on 26, and I asked him, he had the reputation of being a geologist, what he considered the prospect of our getting oil in 26-30-22, and he said: "Your section 26 is better land for development than 27," according to his opinion. He stated he thought the whole country from 30-22 clear to the lake was oil territory; as he had examined them carefully. That would include Townships 30-22, 30-23 and 30-24. That was in the year 1903, I think, in the Spring.

I have dealt somewhat in oil lands in the McKittrick field and in the fields adjacent. I have been on every Section of 30-23, I think. If I had a patent to the odd numbered sections in 30-23, which I have described, the land would be worth, at a conservative estimate from $100.00 to $150.00 an acre.

CROSS EXAMINATION N. C. FARNUM

T. 30-23 has a value as oil land and nothing else, oil or gypsum or fuller's-earth. It has some gypsum. We never sold any gypsum. We tried to sell some we dug off of 36-30-22 but never off of 36-30-23. We never tried to sell any fuller's-earth.

Patented land in the vicinity of McKittrick is worth a good deal more than from $100.00 to $150.00 an acre if there is any oil well on it. Most of the sec-

tions over there that are patented belong to the railroad, now, where there is any oil in them, and you can't buy them. Oil land in the vicinity of McKittrick is worth from $150.00 to $1500.00 an acre. Some of it more than that. I mean, now, without an oil well on it. Land close up to the outcropping is necessarily worth very much more than that some distance from it, and was so regarded in **[340]** 1900; by reason of transportation.

If you have to haul oil in a wagon or oil tank fifteen or twenty miles, as many of them have to do, it does not pay very well to drill wells. If you have a pipe line at your door, as we have now through most of the fields, or have a railroad that is easily accessible, where you can build a short pipe line of your own, it is a different question,—it makes the oil business profitable; otherwise not. The existence of a well on Section 26-30-23 in the Elk Hills, and also wells in Section 30-30-24 and Section 24-30-23, has its effect upon the value I have placed on the lands. I am figuring the values in the light of the fact that it has been demonstrated beyond doubt that there is oil under the ground. At the time we located it it had not been demonstrated, but we did expect to demonstrate it. I paid $15.00 an acre in 1904 for lands located further away from any known well than the land in the Elk Hills is. I bought two sections in 28-30, paying $15.00 an acre. There was not an oil well, at that time, nearer than 6-30-22.

In December, 1904, I would gladly have paid

$100.00 an acre for a section of patented land, either 23, 24, 25, 26, 27, or 15 or 17. If I was not going to develop it for oil I would not want the land at all. I would gladly have paid that for experimental work. At that time it had no value as actual oil territory.

I didn't, at that time, know it contained oil. We knew then that we had a seepage to the Southeast of us, the oil well on Section 6, to the Northwest of us, with a continuous line through, showing—and, along this line, fuller's-earth and gypsum, the changed condition of the ground showing, indicating beyond a question in my mind an anticline or uplift. Therefore, we were willing to and would have drilled on one of these sections I have just spoken of that we bought from these locators had the **[341]** Government not withdrawn the land from us and made it impossible for us to know whether we would ever get a title if we got a well. I know my associates did not, at that time, regard the land as merely a prospect; we considered it better than a prospect. We spent a good deal of money there, and a man don't usually spend a great deal of money on a prospect. We were assured in our own minds as well as we possibly could be without drilling, that it was an oil territory; and I still consider it as such. And, not only that; the drill has proven since that our theory was correct. I don't know whether we would have gone ahead at that time had we known that we had to go to a depth of 4000 feet to get oil. I doubt if we would have gone 4000 feet at that time. I knew of no well in this country 4000 feet

at that time. There was one in the McKittrick field that was somewhere between 2000 and 2200 feet, and we thought that a wonderful well—a very successful driller—a man that was able to get a hole down that far, in that country. Therefore, if we could have bought patented land along there, we would not have located the other land, but there was no patented land we could get where we wanted it. The railroad had patented land along the North part of the township—I think 1, 3, 5, 7, 9, 11, and possibly 13. I had the records searched at Visalia, and the map showing all the patented land in those four townships, and we made our locations through the township according to the records that we found there. If we had had choice of all the land and known that in order to find oil, we would have had to go over 3000 feet, possibly 4000, I think we would have taken the land and trusted to luck. As to whether land, under the conditions then existing, could have been economically drilled I will say that it would have been an expensive proposition. We recognized that fact, but we were willing to start one well in there and put it down just as far as it could be put down. That **[342]** was our firm determination—to drill a hole there, to start with big casing and drill a hole as far as it could be carried to test that territory for oil. We didn't expect to go 4000 feet deep. If we had known positively before hand that we would have had to go that depth, we would have started a well, for this fact—if somebody else could put a well down 4000 feet and demonstrate the possibility and advisability of it

as an oil proposition, we would have followed their footsteps. I don't think there was a well that deep in California. There was one back in Pennsylvania about 5000 feet, but it was a very expensive well.

Knowing all the conditions then existing, we would have sunk a well for the reason that we had determined to drill a hole in the Elk Hills no matter what it cost us, as far as we could go and as far as money would go. That was the absolute determination, not to be deviated from, until the Government withdrew the land.

We held the claims until 1906. The Government withdrawal was removed in 1904, I think. We didn't go ahead after the withdrawal was removed. The conditions changed very materially from 1901 and 1902 as you come down to 1906. Money was hard to get. The price of oil was so low it did not pay to produce it. The transportation conditions were inadequate. Neither of the railroad companies were in a position, evidently—if they were they did not evidence it—to furnish cars to transport the oil to market. These conditions, so different from what they were in 1900 and 1901, put a different phase on the proposition of spending $40,000 or $50,000. It was easier to get cars in 1900 than in later year. It seemed that the injection of the Associated Oil Co., into the oil proposition in Cal., affected the transportation business materially, as they were buyers of oil as well as shippers. [343]

It is not a fact that the transportation facilities, both on railroads and by pipe lines, improved from

year to year, as far as obtaining cars is concerned. We saw new cars every year; we knew they were increasing their rolling stock, we knew that there were new pipe lines being built; but notwithstanding that, there was a long period there when it was almost impossible for a man who was not connected with the Associated Oil Co., or some of the other—one or two —of the larger corporations, to get cars to handle his oil. That was one of the reasons why our company determined not to sink a well after the Government removed its restriction. Another reason was a lack of money.

When we determined in 1899 or 1900 to sink this well, we expected to derive a profit from it. We didn't know that it would be necessary to go 4000 feet and were absolutely considering the profit end of the venture. I don't know that I ever heard it discussed as to whether it would be a profitable or even possible venture to sink a well in that country over 2500 feet deep, but I have no recollection of it having been done at that time. But we had positively determined to sink a well there as deep as we could go. We expected to go at least 2000 feet. We were fully convinced of that. I don't recollect whether we expected to go any further than that or not. I know that we considered the territory at least 2000 ft. territory and were prepared to drill a well there notwithstanding that. We considered it about 2000 ft. territory. We had a good many opinions expressed on it by men who pretended to be able to express an

opinion, and from these opinions, we considered it about 2000 ft. territory. Our determination to sink a well was based on the best information and advice available at that time.

We located all the land we had in four townships. At least 42 sections. We didn't make a discovery of oil on any of [344] them. We didn't know that any of them actually contained oil and we made the locations for the purpose of prospecting and developing that country for oil. That was why we took up the ground for oil.

In addition to posting location notices, having surveys, and constructing roads and a few buildings, we dug some holes along these places where gypsum was exposed, and fuller's-earth. Wherever we found the sand that we thought might indicate something we had some work done on it. These holes were dug for annual assessment work, for the purpose of holding the ground as an oil prospect, with a view to seeing what we could discover while we were doing it. We had to do the work somewhere on the quarter section and we preferably did it where we thought it might indicate something to us. It did indicate that we had some fuller's-earth and gypsum. It didn't develop any oil. We did not make any effort to market the fuller's-earth or gypsum. We were interested in the territory purely from the standpoint of its oil and mineral possibilities. We did not try to market the fuller's-earth and gypsum because we could not do so profitably.

As to the indications that induced us to locate that territory in 30-23, I will say: The fact that at the southeastern extremity of the land in 30-24, Section 32, was what we have termed a gas blow-out, with an anticline and a syncline showing in the canyon, the material surrounding the gas blow-out proving by a very simple test to determine oil assured us that there had been oil in that portion of the land at some time. On the northwestern extremity of that anticline, in 30-22, Section 6, the U. S. Oil Company had a well producing oil in sufficient quantities to make it valuable; and the McKittrick Oil Company immediately to the West of them, having a well which at one time produced as much as 200 barrels per day of 24 hours, [345] assured us that in the intermediate territory between these two indications that we discovered there, in all probability was an oil-bearing zone. That was the reason we made the locations. We made them as a result of oil indications over in township 30-24, and in Section 32, and Section 36, 30-22.

These indications we had discussed with men who were geologists, men who were experienced oil operators; and I have no recollection now of any men who went into that country, saw these two points that I have described, but what he was satisfied that in the intermediate territory between them was an oil-bearing zone, and the sands as a usual thing are continuous sands—there is no disturbance to show they have been rolled, turned over and gone the other way—and for that reason, our own conclusions and the advice

we had got from men who were more expert than we were that in all probability it was an oil country, we went to work in it.

We would not have located the territory merely for the fuller's-earth or the gypsum.

I went over 30-23 very thoroughly, and have no recollection of finding any oil seep in that township. The anticline that shows in 14 in 30-22 in the canyon where the railroad passes through in going from Lokern to McKittrick, my recollection is—my best recollection—that as we follow that anticline as far as it showed there is a seepage of oil. Now, whether it is on 14 or the next section, 13, I am unable to say. That was in the township immediately West of 30-23.

I have no recollection of asphaltum reefs in 30-23. I have seen sandstone, what is usually termed a cap rock, that was discolored. Whether this discoloration occurred from oil that had been in it or not, I never made an investigation. I saw that cap rock, I think in 27 and 33, according to my recollection of it now, in the South portion of Township 30-23. I don't **[346]** recollect seeing any asphalt anywhere in that township.

As to the evidence of an anticline in Section 14 in 30-22 near the railroad, which I have mentioned, it was my recollection that I didn't find more than one flank or slope of it. I found both slopes of the anticline well defined in 32, 30-24, in the gulch where the blow-out occurred. The one on the northern portion of the canyon North of the gas blow-out had a slight

dip, perhaps ten degrees, to the Northeast. The one to the South of the blow-out has a corresponding dip to the Southwest. The angles were quite uniform. I have no recollection now as to the extent to which the anticline to the Southwest was revealed. We concluded that it was a true anticline and a syncline.

I discovered anticlines in the Elk Hills, one in 32, 30-24, and one in 14, 30-22, which were undoubtedly the same anticline.

In May, 1899, a man named Elwood discovered oil on the banks of the Kern River in 20-28, about fifty miles from the Elk Hills, and the immediate effect of that discovery was that people who had never thought of oil even, saw an opportunity probably to become suddenly rich, and were anxious to acquire land anywhere there was a possibility of getting oil, and they made locations in 28-28.

I think we were the first to go over into the Elk Hills to locate, except the men we brought out; we saw no evidence of anybody else being in there. That was in 1899. I think that Dr. Sylvester followed us in making locations.

I think the oil excitement began in the vicinity of McKittrick in 1899, and lasted a couple of years or until some time in 1902. During that time there was an influx of people into that vicinity, many of whom had no experience in the oil business. I, myself, had had very little. These people made [**347**] a great many locations. There were locations made on the flat South, West and Northwest of the Elk Hills.

I do not think that during the oil excitement there were locations made on practically all of the available land within a radius of ten miles of McKittrick. Most of the locations followed the trend of the hills, which is practically Northwest and Southeast. We, and others, have been induced to believe that we must confine ourselves to hill land from the fact that it was possible to reach oil sand at less distance there than out on the flat.

The people did not make locations for a considerable distance in all directions from McKittrick; I think I am stating the fact to you as far as I know it now and as I recollect it—and I kept myself very familiar with the work that was being done on assessment work, and locations around McKittrick and around Sunset, and in the immediate surroundings of the Kern River field, which was about the only territory we had at that time where a well was drilled.

I first became interested in oil property near McKittrick by scripping four thousand acres of land—I think about the time we located in Elk Hills. The land scrip was located in townships 30-21 and 30-22.

The first development we ever did was in Section 21, 28-28, Kern River. We struck oil there. We had quite a lot of other property in the Kern River field and the country surrounding it. We only developed in Section 21, where we had 26 wells, I think, if I am not mistaken, and we started development up on 34, and struck an enormous amount of water and stopped work.

We proposed to move the derrick from that well down into the Elk Hills, but didn't do so because the land was withdrawn by the Government from entry then, and after the withdrawal was removed, we didn't have the money to begin the development [348] there, and I had entered into a contract with the Standard Oil Co. which employed all of my time. I talked with Captain Cummings, who was a special agent of the General Land Office, about the withdrawal and he told me that if the withdrawal was released our rights would be restored. He was around there about two or three years.

I don't claim to be an oil expert at all. I have had very little experience in the development of oil properties up to 1905, and knew very little about it except from observation and conversations with men who were working on properties in which I was interested.

I use to go to Sunset very frequently with Mr. Jewett. We would drive out there and remain two or three days, and during that time, I would talk with the men and observe what was being done, examine the country around, the nature of the rock. I was then trying to educate myself, looking for information myself.

A great deal of the work then being done by Jewett & Blodgett was being done because they were obliged to under their lease from the locators of the lands they were operating on.

From 1899 to January 1, 1905, lots of wells were

being drilled—lots of people were under contract, like Doheny & Canfield. They had a contract with the Santa Fe for a dollar a barrel for oil, 100 barrels a month. They could not stop operations. The Kern River Oil Company, the Imperial Oil Company, the West Shore Oil Company, the Kern Four and the Black Jack didn't stop operations because a great many of them were operating on leased lands. They were not all operating on leased lands. There was lots of development going on, but not so much as would have been had conditions been different. There was undoubtedly quite a good deal of development going on all the time. A good many of them were under leases, and were compelled by the conditions of their leases, to drill so many wells a year. Other men had contracts for the sale of their oil at a good price, [**349**] and they were very anxious to fill them. I think those two classes included all who carried on development work from 1899 to 1905. I think there were some others outside of them.

The reason we did not go ahead and sink a well in the Elk Hills was, as I have before stated, the fact that the Government had withdrawn the lands; and when the withdrawal was cancelled, some of the men, and myself as one of them, didn't have as much money as we did in 1900. I have been buying land.

I had negotiations with Mr. Bartlett, which I have mentioned, in 1900. We eventually sold him a quarter section of land after his people had turned down the other land on account of the withdrawal.

I tried to interest a man named Havens of San Francisco in the lands,—also a man named Edwards, who had been in the employ of the Standard Oil Company. We went out and spent a couple of days looking over it, and he was positive he could interest lots of people in leasing from us, but he did not.

We spent about $20,000 altogether on this land in six years. We didn't attempt to do all of the assessment work; we didn't have the money to. What we wanted to hold was what we considered the best land, the land that was most likely to be oil lands. We probably did assessment work on a quarter of the claims we held.

I met Mr. Owen in Bakersfield in 1903. We discussed the general trend of the Elk Hills. I asked him whether he thought we would likely get oil, and he said "Yes"—I don't know his exact language. He said something about the depth we would have to go, but I can't say what it was now. I am not sure whether he said it was three or four thousand feet. I think he said it would be deep. I thought myself it would be at least two thousand feet, but Mr. Youle always contended it was shallow territory by reason of the uplift. The hill, he said, made an uplift; it was [350] not caused by erosion, but by an elevation from below.

RE-DIRECT EXAMINATION OF N. C. FARNUM.

We had a camp in the Elk Hills and maintained possession, I think, from the time we made our lo-

cations until about 1906. We were in possession of the locations in 30-23.

We purchased quite a lot of land from the railroad company in the Kern River field, and tried to purchase, 25, 30-22.

After Mr. Treadwell, who was oil expert for the Southern Pacific Railroad Company, began his system for withdrawing lands from market, we did not succeed in purchasing other lands from the company except two sections in 31-24.

He stated that he authorized or insisted upon the withdrawal of lands of the Southern Pacific Railroad Company in Kern county that he considered valuable for oil, and that he had a conference with Mr. Kruttschnitt and Mr. Huntington over the proposition, Mr. Kruttschnitt differing with Mr. Treadwell, and Mr. Huntington decided in Mr. Treadwell's favor—that the lands should be withdrawn.

We tried to purchase land in 25, 30-22 in the Elk Hills, but were not able to do so at any price. Mr. Treadwell said they were not for sale.

I was interested in an application for six sections in township 19-11—five and a half or six sections. The first payment was made and accepted, and a receipt given for it, but the deeds were never transferred, as the San Francisco office said the New York office would not consent to giving any deeds, and the money was returned. That was because of the proximity of the land to an oil field. I knew H. L. Packard; I was in Mr. Madden's office in San Francisco

while he was land agent for the Southern Pacific Railroad Company, with Mr. Packard, in 1900. [351]

Section 16, 30-23 sold in 1910 for $150 an acre.

RE-CROSS EXAMINATION OF N. C. FARNUM.

Last year a crop of barley was raised on part of section 16, 30-23. There was some level land lying on it.

I was living in Bakersfield in 1904. The ECHO and the CALIFORNIA newspapers were published there at that time. I think I took both of them. At that time I was very familiar with the townships in the Elk Hills.

In 1900 or in 1901 I tried to purchase all of section 25, 30-22 that was owned by the railroad company. It was on the west slope of the Elk Hills, the very small part of it in the flat. We did not attempt to purchase any in 30-24, but we did attempt to purchase in 31-23 and 32-23. [352]

PARKER BARRETT, a witness called and sworn on behalf of the plaintiff, testified as follows:

DIRECT EXAMINATION.

I am an oil operator and engaged in the brick business in Kern County. I have been in the oil business since 1900 at different times, not continuously. I was at one time connected with what is known as the Lake View Gusher. I located the ground on which it is situated, and assisted in promoting it. It is located on fractional section 25, in 11 north 24 west.

The time that well was produced I presume it was as large as any other well in California. It had an average estimated production of about fifty thousand

barrels for the first six months. That was an especially large well in those days.

I have been interested in other oil property—in section 32, 32-24; in 30-11-23, and 8, 11-23,—and in other properties.

I have been interested in lands in the Elk Hills. I think there were three sections in a line in 31-24, and perhaps some in 31-23. I think I first went to the Elk Hills in March, 1909. There were no actual drilled wells in operation there at that time, and no oil had been produced.

I know of an oil seep in the northwest quarter of 32, 30-24, and have seen it.

The Elk Hills were apparently in the same condition when I was there in 1909 that they were in 1904. There had been nothing done to them. There was nothing on them except one cabin I could see, on section 32, just above where this seepage or discoloration of the ground, of the sands, was.

That seepage assisted me in my knowledge in thinking that the lands were good oil lands. I had already determined that it was oil land before I went there from talking with different geologists and men who had been there. I had heard of this seep- [353] age a good many years, was one thing that made me think that it was probably good. I think I talked with a dozen geologists—with Dr. Fairbanks, Dr. Ochsner, and Dr. Owen of the Southern Pacific, and with others,—I can't call their names—that were sent there by my associates. I think my first talk was

about three years before I went in there to make locations.

I had a conversation with Dr. Owen in Bakersfield. First, he did not pretend to know anything about that country. He kept asking me questions. And after I had answered him and talked to him quite a while, and answered a great many of his questions, I told him that I knew he was more familiar with most of the country than I was—knew about it, at least, and he admitted that that was the case, or at least that he had been there frequently. When I went into the Elk Hills I formed an impression of the oil character of the land from the general appearance of the hills and the country, as compared with others. I have not had any reason to change my opinion since that time as to the oil character of these lands. I think I had as good an opportunity to judge in 1909 as to the character of these lands as a man could have had in 1904. I don't think there was any difference in the appearance of the country.

I know of oil seepages in the vicinity of the hills—there is a gas blow-out in section 11, 32-24, which I first saw shortly after the first of 1901. From Sunset to McKittrick, along the line of the eastern flank of Temblor Range, I have never seen anything that I really called seepages. In Maricopa there are some seepages. I saw them I think about 1907.

In 1909, at the time I visited the Elk Hills I was acquainted with the asphalt in 30-22, around McKittrick. I had known them before that.

I have frequently been on the train between McKittrick and Bakersfield. I know where the train passes through the gap on Section 14-30-22. I helped build the road. Just about where the road passes through the narrow gap [354] there is asphaltum beds and brea.

The Elk Hills, including 30-23, has no value for agriculture. I could not say that they had absolutely no value for grazing, but they have very little for that. Sheep occasionally range across there, and find very little food, even in a good season. My reason for saying that they have no agricultural value is, in the first place there is very little of it that lies so that even if you have water on it, it could be cultivated, and if you attempted to turn water on a good deal of it, it would all wash away. There is a little vegitation on the hills, principally scattering sage brush.

CROSS EXAMINATION OF PARKER BARRETT.

I am not interested in the Elk Hills at the present. In 1899 I made some locations and kept them up. I later sold them. They were in 8 and 9 three quarters of 7 in 31-24, and 13, 11 and 1 and 3, in 31-23, I think. I had nothing in township 30. Never did any work on them. People got there ahead of us.

I was in there in 1904. Don't know what was there then. At the time I went there in 1909, the Honolulu Oil Company was working on one quarter section of 10. I don't think they made a discovery in March.

They did make a discovery but I don't know when they made it.

That discovery had no influence on me in forming a conclusion as to the character of the Elk Hills unless I changed my mind since first seeing them. I think I have heard of the Elk Hills twenty years before 1906, but I never went there until 1909. I don't think Professor Owens asked me anything about the Elk Hills. The questions he asked me were generally in regard to the Midway. I could not have told him anything about the Elk Hills at that time because I had never been there. I was familiar with a part of the Midway. I don't remember that he asked me of the Elk Hills.

I asked him in regard to the Elk Hills. [355]

W. H. McKITTRICK, a witness called and sworn on behalf of the plaintiff, testified as follows:

DIRECT EXAMINATION.

I have lived in Kern County, California, since 1890, and during that time I was acquainted with J. Owen. I have known him since 1899. I first became acquainted with him in Eagle Pass, Texas. He was geologist for the Southern Pacific.

I went down there to meet Mr. Owen to go to Texas to look at the mine, and on his advice I invested in this property; and it did not turn out very well, and Mr. Owen apologized after that, always, for making such a bad investment for me. The next time I met him was on the Oakland boat in 1903 or 1904, I think in 1903. At that time he told me: "I am awfully

sorry about our investment down there, but I have something that I will put you on that will make you more money than the mine we might have had in Mexico." I asked him what it was and he said he was not at liberty to tell me then, but would tell me when the proper time came.

He did not tell me what kind of mineral it was, but in 1907 I met him in Bakersfield, and he said then that he was ready to put me on to what we were talking about in 1903.

He told me that he had been working out in the Elk Hills for a number of years, and that no one knew he was out there at all, and he told me to say nothing about his being out there. And he said he had been out there in the employ of the Southern Pacific Railroad, and that he had located these large deposits of Fuller's earth, and he said he would name four men, and that I could name four, and we would go out there as take as many sections as we cared for as they would all be open on the first of January, 1909; and he said to locate as many as we cared for, and then do the development work on the most likely looking deposits of Fuller's earth and then drop the others, which we did. We kept four and a half claims.

At that time he said there was a possibility of oil [356] there, but oil could not be found under 3400 feet. Of course, at that time, no one thought of going 3400 feet for oil. I didn't know of anybody else thinking about it.

At that time I was acquainted with E. T. Dumble,

who was alleged to be a geologist of the Southern Pacific Company. I had known him a number of years. In fact, I went to Mr. Dumble's office and met Mr. Owen, and talked there in Mr. Dumble's office in San Francisco, about 1907. I had met Mr. Dumble before that on the train. I don't remember just what year that was. I don't think it was much before 1907.

Mr. Owen told me on several occasions that Mr. Dumble was his partner in any venture he might make; because, at the same time, he wanted me to go into an iron proposition in Sonora. Mr. Dumble was interested as half partner with him in the venture, as he told me, and also anything that he took up. I think he told me that when we went down into Mexico in 1899.

When Mr. Owen told me about that down in Bakersfield in 1907, he said: "I have just the man we want in this, Mr. Packard, who was running a Fullers earth mill; and he knows all about Fullers earth, and we will go down and see him." So he went down to Mr. Packard's office, and he showed us his books where he had a profit between six and seven dollars a ton on this Fullers earth he was grinding out. And he said it was a fine thing, and he would go in with us. He said "if you will take the management of it and go in with us, I will go in with Mr. Owen, and I will name you and Mr. Rice."

Mr. Owen named Mr. Charles Haverkern, Mr. Chapman, Mr. Richardson, Mr. Wible; I think it was Samuel P. Wible.

After we had made our locations and done our assessment work, and after the withdrawal of the land upon entry by the President, some people jumped our land, and the Associated Oil people bought their rights or made some agreement with them. I never knew what that agreement was. [357]

I and my associates were at that time attempting to acquire patents on our locations for Fuller's earth. We did not locate for oil. We located for Fuller's earth and perhaps gypsum. I don't know for sure. I left that entirely to Mr. Owen and Mr. Packard. Packard was my lawyer at that time. I don't know as a matter of fact that we located for oil and other minerals besides Fuller's earth.

The contest I have spoken of was brought about by the Associated Oil Company, I think. Their employees gave testimony in this case, and the contest is now pending in the land office.

I believe the contest was based on an oil discovery.

They had their experts at the contest saying that it was not Fuller's earth.

I am acquaitned with W. H. Porter, President of the Associated Oil Company. I had a letter from him with reference to the settlement of the contest. A few days after I received the letter I met him in San Francisco, and he asked me if I had received it.

I think they were contesting a half section, but I can't remember just the half section it was. It is in 30-23. We had located 20, 22, 24, the North Half of 26, and the North Half of 28, 30-23, with Professor

Owen and the other associates I have mentioned. There is another half section that the contest was over. To the best of my recollection it was in 24.

The land in contest is the one on which the Associated Oil Company has been drilling a well. I couldn't say when they started to drill it. We were not allowed to go out there on account of the mounted guards, at one time, by the Associated.

The letter I received from Mr. Porter mentioned above, is marked "Claimant's Exhibit No. C." And for an explanation as to why it was so marked, I will say that it was a part of the evidence before the Land Office in Visalia, in the contest I have [**358**] referred to. When Mr. Porter asked me if I had received the letter, he referred to this letter.

Whereupon, the attorney for the plaintiff offered in evidence and read into the record, the letter referred to, which was marked "Plaintiff's Exhibit McKittrick No. N," and reads as follows:

William McKittrick, Hotel Potter, Santa Barbara, Cal. Dear Sir:—I have advised Mr. Scribner that on your return to San Francisco, which will be next week sometime, you will either call upon him, or communicate with him and arrange a meeting, at which the conflicting titles of the Elk Hills properties may be discussed. Mr. Scribner will negotiate with you along the lines we have discussed and agree to keep one string of tools running on each section so long as oil is discovered in paying quantities, a well producing 100 barrels per day being considered a paying

well. We will do this drilling so that each quarter of each section will be developed in turn and paid for. The contest, as I understand, comes up for hearing on August 8th, and if trade is to be made so that you are to proceed to get patent without contest, any contract entered into between us should be executed within the next ten days. Please advise Mr. Scribner when you expect to be in San Francisco and he will arrange to be here at that time to meet you. I hope you and he will be able to come to some agreement. Yours respectfully, W. S. Porter.

The witness continuing, testified as follows:

Mr. Porter wanted us to pay $200 an acre for the land in controversy in that contest, and for all the land held by us under all the locations. I did not accept that proposition; I would not consider it.

I have no idea how much land is worth in money value. **[359]** All I know is that there are immense quantities of Fuller's earth there, and I know that they have discovered oil there since then.

In answer to the question as to whether I have an idea that the land was worth more than we were offered, I will say that there was a matter of principle involved—whether you would allow a man to hold you up and rob you, take your property away from you, and name his price. That was one thing. I don't believe I would consider any value or consideration that the Associated Oil Company might offer me, as an inducement to sell that property.

Mr. Owen said in the conversation in Bakersfield

that there were thousands of tons of Fuller's earth exposed in those sections, and that he considered it the best quality of Fuller's earth in the United States. He said that he had many tests of it himself. In fact he showed me a test of Fuller's earth at that time.

In answer to the question as to whether Mr. Owen had made a thorough examination of the property covered by our locations, I will say that he told me that he had been there many months. In fact, he had been there many years—four or five years for that matter.

CROSS EXAMINATION OF W. H. MCKITTRICK.

I am not interested in the oil business and never have been.

I first went into the Elk Hills many years ago. There used to be a band of elk there, and I used to go over the hill looking for them. I was first there, I would say, in 1900.

I was then ranching. My ranch is about sixteen or seventeen miles from there.

I think I have been right on the Elk Hills but once up until 1907. I never made any examination of the ground for its mineral possibilities prior to 1907, and prior to that year **[360]** I had not had any experience in Fullers earth. I relied entirely on Mr. Packard, who was running a Fullers earth mill.

And I first met Josiah Owen in 1909 at Eagle Pass, Texas. I had no conversation with him then with reference to any portion of the Elk Hills. The first conversation of that kind I had with him was, I think, in 1907.

When I talked with Mr. Owen in 1903, he said that he was not at liberty at that time to tell me what he would put me on to. He said that he would put me on to something good after awhile, but was not at liberty to state what it was, and it was not until four years later that he came near me with reference to it. I had then forgotten all about it until he looked me up in Bakersfield. He then said that he had been many months out on the Elk Hills, and that that was the proposition he wanted me to take up when we had the conversation on the boat, and he was not at liberty to make any statement at that time because he was working for the Southern Pacific Railroad, and that since that time he had made arrangements with the Southern Pacific Railroad that he and Dumble could take up what land the Company didn't want, and do as they wanted to with it. But he didn't want his name mentioned at that time in 1907. He told me not to mention his name.

Mr. Owen was a gentleman, and I always had the highest regard for him as a truthful man. He did not say anything then about using Mr. Dumble's name.

I did not at that time express any surprise or ask any questions as to why Mr. Owen's name was not to be used. I had the utmost confidence in him, and asked no questions. His request was that I should not say anything about his having anything to do with the taking up of this land in the Elk Hills. He told me that he had known about this land for some time and kept it quiet. My understanding was that he knew

about the land all the time but that he was not at liberty to take other people in until he had made this arrangement with the **[361]** Southern Pacific Company; he was in their employ; and he said, I believe, that it was not an honorable thing to do as long as he was in the employ of people, to make any deals on the outside. I don't remember that he said that he had kept quiet about what he knew about the Fuller's earth. I didn't understand that he had not made this discovery of his known to anybody prior to the time he told me. He did not tell me of anyone to whom he had reported it, and I did not ascertain that he had reported it to anyone prior to the time he told me about it.

I only met him three or four times after that; just met him on the street and said "How do you do." He told me that he knew in 1903 there were large quantities—thousands of tons of Fuller's earth in the Elk Hills. He told me that there might be a possibility of oil there, but that oil could not be found within less than 3400 feet, but he could not tell whether it was in paying quantities or not, but that he believed that oil was there at that depth.

I was confining myself to Fuller's earth, and didn't consider the oil at all. It might have been the understanding at that time that that depth was prohibitive, but I am not up on the oil business. I never paid any attention to it. I can't say that it was my understanding at that time that that depth was prohibitive. Mr. Owen didn't say anything to me about the depth being prohibitive. He said that he had been out there so

many months, and that he didn't think there was any chance of oil in less than 3400 feet, that there might be oil at that depth. He suggested the locations for Fuller's earth, and did not say that it was for the purpose of getting the oil. My purpose was Fuller's earth, and Fuller's earth only, and not for oil. Of course I knew that if oil was ever discovered, that was something that would be all right,—it might come in all right later, or after we got some of our Fuller's earth off; but I didn't consider at that time **[362]** the possibilities of oil as a portion of the value of our location. We located purely for Fuller's earth. My ideas were based on what Mr. Owen and Mr. Packard told me.

The locations were made in 1909. The lands were located by others in 1907, and we could not locate then. I think the prior locations lapsed and were abandoned; we did not buy them out.

We located several sections with the idea of giving us plenty of time to develop these bodies of Fuller's earth, and then we would abandon the others. To the best of my recollection, we located 20, 22, 24, the north half of 26, and the south half of 28, in 30-23. There was another half section in 30-24—a part of a section, or a section, I don't know which. I think we are still holding the portion I have just mentioned. I am certain that we located other lands than the sections I have mentioned, and have given them up. I couldn't tell what the other sections were. It may be a fact that we have given up portions of the sec-

tions I have mentioned. I think we developed Fuller's earth on all the sections I have mentioned; I can not be positive. We haven't sold any of the Fuller's earth. At times we were not able to go on the land; we were kept off. We have not received patent, and I am aware of the fact that many mines are worked and large proceeds derived from them without patent having been obtained. I don't know that anyone has prevented us from hauling Fuller's earth to market. We have not marketed it—only took it off to make tests.

I am interested in the property but it was entirely in the hands of Mr. Munzer. I believe the Associated Oil Company is trying to rob us.

In our contest we contended for the land as containing Fuller's earth, not as containing oil. I don't know that I contended that it does not contain oil. The statement from [**363**] Mr. Owen was that it possibly did. I don't think the question of the lands containing oil was raised by our men in the contest. I didn't hear any testimony as to that.

Our locations were on even numbered sections, and I cannot say that prior to January 1, 1905, I knew of any deposits of Fuller's earth on any odd numbered sections in township 30-23, and I cannot say that anyone else knew of such deposits on the odd numbered sections in that township prior to that time, and I cannot now say that there is Fuller's earth on any of the odd numbered sections in that township in paying quantities. To the best of my knowledge

there are paying quantities on the even numbered sections. I have seen earth that is pronounced Fuller's earth, and believe it to be Fuller's earth, in paying quantities. I have the opinion of experts to that effect. I was so informed by Mr. Jewell, who was a Special Agent for the Interior Department at one time, and is now engaged in the oil business in Bakersfield as a consulting geologist. He was also an expert on fences and enclosures. I received the opinion of the experts in 1907.

We made no attempt to locate the lands in 1907. They were already located then by others. I don't know what work was done on the locations; that was left entirely to Mr. Packard. I don't remember how much money I paid on the locations; I paid my part. I believe there was something like nine or ten sections located. I cannot tell how much was expended altogether on the locations.

There was no injunction from removing Fuller's earth from those locations that I know of.

Mr. Owen told me in 1907, that E. T. Dumble was his partner in any enterprise that he had.

RE-DIRECT EXAMINATION OF W. H. McKITTRICK.

One of our men reported to Mr. Munzer that they had been driven off our land by the Associated Oil Company armed [**364**] guards. That did not prevent us from developing the land for Fuller's earth since then. We took counsel, and were told to go right on with our assessment work every time we

could get in there, and simply do nothing but our assessment work.

I have been in the ranching business since 1890. My ranch is located at Kern River Delta below Bakersfield; embraces about 2300 acres, of which about eighteen or nineteen hundred acres are under cultivation. In my opinion, the Elk Hills are absolutely worthless for agricultural purposes. I don't think a sheep man would pay taxes on it even as a grazing proposition. I never saw a drop of water all through them. The surface is so eroded that nothing could be done in the way of agriculture, even if they had water. I did not own it for grazing purposes. I could not pay the taxes on it because they only have grass on it maybe twice in four or five years. It is a little short—grass called poverty grass, that grows there. Cattle could not go in there.

RE-CROSS EXAMINATION OF W. H. MCKITTRICK.

I say that for grazing purposes the Elk Hills were absolutely worthless. I would not own it; I would not want to rent it. I used the word "absolutely" in order to emphasize its worthless character for grazing. When I was there in January or February there was no vegitation growing on the Elk Hills, and no grass that I would call grass at all. I saw no signs of sheep having been there. In the early spring you might get a few weeds, but as far as grass is concerned, there was nothing there. There may be some there now. There was none there when I was there—

not enough for grazing purposes, over the country I went over. [365]

RE-DIRECT EXAMINATION
OF W. H. MCKITTRICK.

I have been ranching for twenty-five years. Have grazed cattle but not sheep. There is some water down in the flat in 30-23. Mr. Miller controls it all, I understand.

W. E. YOULE, a witness called and sworn on behalf of the Plaintiff, testified as follows:

DIRECT EXAMINATION
OF W. E. YOULE.

I am 65 years old and reside in Los Angeles. For the past thirty years I have been engaged in the oil business. I first went into the oil business in Venango County, Pennsylvania, in 1863. From 1863 until 1875, I followed the new fields—new developments rather—of Pennsylvania from Pit Hole, Oil City, Parker's Landing—that is down towards Pittsburgh—all along the river and creek there, Oil Creek and the Allegheny River. I was engaged in the examination of new fields all my life.

I was in the Pennsylvania fields from 1863 until 1875 except three years after 1866 I was in the Canadian fields at a place called Patrolea in Ontario. Those fields were undeveloped at that time.

Before leaving Pennsylvania in 1866, I was in charge of the United States Oil Co. there and two members of the company, two directors, were interested in lands in Canada that they thought had indi-

cations of oil. I had been rather lucky for those people in the Pennsylvania fields and they wanted me to go to Canada.

The Canadian fields proved to be good oil territory; they got lots of oil there; they are producing oil there yet.

From Canada, I went back to Pennsylvania, still in the [366] oil business. At the request of a man named Kern, I joined the firm, took charge of it, contracting and drilling new territory.

Later I was employed by Mr. Sifton, a member of parliament of Canada, and Mr. Glass, then Mayor of London, Canada, away up in Manitoba, on some oil land that had indications but had not been developed. I was there a short time and did not attempt to develop the land because of inability to tell anything about it.

After I left Canada at that time I went to Salt Lake and examined, to a limited extent, the banks of the lake for gilsonite and asphaltum. I didn't like the looks of it. At that time I was not familiar with asphaltum base oil. I thought the stuff was too heavy to pump. They had nothing of the kind in the East. They had paraffine there generally.

From Salt Lake I went to San Francisco where I knew the secretary of the company I had once managed, was a member of the firm of F. B. Taylor & Co., handling oil of every kind. The same gentleman is now Vice-President of the Standard Oil Co., Mr. Schofield. He was interested in oil operations in California and told me they were attempting to get

an oil well down in Newhall, Los Angeles County, and would like to have me go down there and see it. I went down. I think I went down alone. I came to Los Angeles first. And, while making the enquiry, during that time, I met W. W. Childs, brother of O. W. Childs, and he told me that R. C. McPherson, an oil man, was here in the city and operating in Newhall. Mr. Childs kept a store on Los Angeles Street at that time, a tin and sheet-iron store, and was making oil well pipe, riveted pipe, for Mr. McPherson; and sometime during the day, later, I met Mr. McPherson. I arranged with Mr. McPherson to go out to the well and take charge of it and fish out a lot of casing and tools that were broken off in the hole. [367]

That field was not developed at that time. It was later developed and one of the nice fields of the country. It was never very big, but very prolific, that is lasting. I made an examination of that territory. The examination I made had largely to do with its subsequent development.

While I was at work in that field, the San Francisco office wired me to go up into Santa Clara County, California, near Los Gatos, and make an examination, it being reported that there were indications of oil there. I went up and made the examination and drilled 8 or 9 wells. They were producing wells and were the first developed there. There was no question but that the development of that field was due to my examination and the conclusions I reached from my personal observation. That field did not last long. It

is producing, I think, a little oil yet—did for twenty years—but it was always light.

From Santa Clara County I went back to Newhall. Mr. Felton said—"I am not making any success down there. I would like to have you go down."

I will never forget the circumstances there. He was to buy me a new suit of clothes for every flowing well I would locate and strike; and I had about a dozen there in Newhall.

Subsequent to my operations in Newhall, I made other investigations of oil fields in this State. I think I left Newhall in about 1885 because it had been determined that diamond drills were to be used and I thought that would be the last thing that I would want to see.

I then made investigations of an undeveloped field in Fullerton way with the result that I agreed to put my own rig, machinery and efforts and everything in there and just go ahead and develop. That was 25 years ago. After getting 4 wells to going, I sold out. That proved to be a good field.

I then went to Mexico and examined oil territory and **[368]** made an adverse report on it.

I then went to New Mexico for the purpose of examining lands alleged to be of oil in character. They didn't look good to me although there are oil springs cropping. I understand that very recently, 2 or 3 small wells were put in there.

I think I then went to Bakersfield, California. There had been some development there. About 1877

an old driller who had worked for me went to McKittrick and drilled a well for an oil company. That was away back underneath the out-cropping underlying everything that lifted up. Evidently the party who located the well could not have noticed the conditions there at all. I first went there with Henry F. Williams, an employee of the Pacific Improvement Company, or agent for them. That was in 1890. He came out to Sunset, where I was getting ready to drill. I had been in Sunset before that, in 1889 first. I went into that field before there was any development.

I made an examination from the vicinity of Sunset North as far as McKittrick along at that time. It looked very favorable for oil. In fact, to be very accurate, I examined the river field, Kern River field, first in 1889 and found it very confusing, that is, the formation showed so much erosion that it was hard to arrive at any intelligent opinion about it. Of course, there were earmarks enough and evidence enough, and all that, but it was hard to get at the correct idea of it in my mind.

Mr. H. A. Blodgett employed me to make the examination in the river field, Sunset. I made the examination and found the conditions easier to determine, due to the exposed edges of the formation. As evidence of oil, there were outcroppings—springs of oil and outcroppings, the long lines of the formation that were not faulted, was a good indication that if oil was found it would be very extensive. The fact that it dipped into the valley towards the river showed something new to me; it looked to me to be the biggest

thing I ever saw in my life. The dip [369] of the valley would naturally make you think it would run horizontal, except in the Buena Vista Hills there was an uplift. You could see that plain.

There was seepages along the line of contact with the Temblor Range there around Sunset. They were in a great many places all along. What I call seepages are not all live oil, but positive evidence of oil-soaked sands and shale—some dried up, and some had made hard asphalt. The evidence there was very plain from—I don't remember the section, but it was from 3 to 5 miles along there. At that time they seemed to impress me very much.

Money was invested there on my opinion; there was a great deal of money invested. Our first efforts there were not very profitable, but determined good sand and direction, and had oil, and sold oil and made asphalt. But oil went down to 10 or 15 cents a barrel, and you could not pump water for market for that—much less drill for it.

Subsequent to that time, I made further examination of the field to the North, Northwest. Before I went very far in the Sunset, I think we were getting a rig ready, Mr. Blodgett for whom I was working—I was interested with them—had an interest in it. The conditions around McKittrick were about the same as Sunset. Indications of oil right along, and some very heavy deposits—appeared to be heavy deposits of asphalt; but upon close examination, I did not think it was asphalt very much of it, painted earth stained with oil.

Henry F. Williams wanted my report or opinion on the country for the purpose of giving it to the P. I. Co. I made a report and gave it to him. Without any question, it was very fine looking territory to me. I so stated in my report and was then asked to go to San Francisco and did so where I met F. S. Dowtey, Secretary of the P. I. Company, I think, and Ed Hays, Assistant Secretary. I think I met A. N. Towne. He was [370] manager or superintendent or something. He was with the railroad people. I do not know whether it was with the Southern Pacific R. R. Company or the Southern Pacific Company. That would be hard for me. They were the officials of either the P. I. Company or the Southern Pacific Company or the Southern Pacific R. R. I could not say which. I do not remember exactly what conversation there was at that time with reference to the field. I remember the substance of what I said. I was very much in favor of the field; and had reason to feel very sanguine that it would make good terrtiory. I do not know what their purpose was in having me go up there. I stated my conclusions to the people I have mentioned. That was before the railroad was built. I do not know whether my opinion had anything to do with the building of the branch road from Bakersfield to McKittrick. I made some statement as to where it would be profitable for the railroad company to build in there. They asked me what I thought of the territory, I know that. I cannot remember the exact words, but I was up there for two

days and I told them what I thought of the territory and I knew I thought it promised to be very good territory. Nothing was discussed with me at all in regard to the proposition of building a branch road from Bakersfield to McKittrick. That road was commenced very soon after that.

After that time they were operating a lot of kettles digging up asphalt in different places around McKittrick and melting it and refining it. They had been doing it for about a year before the railroad was built. That was a sort of preliminary to get the value of that deposit. But it proved that those deposits did not go down very deep and before long they were out of asphalt—that is, the pure stuff. During that time it was managed by a man named Hutton.

The P. I. Company wanted me to go over and look at it. [371] They said things were not going right over there. I was at that time operating at Sunset. This was after the railroad was built. I went over there and found quite a number of men, 50 I suppose, working there. I made an examination of the situation and made a report that I thought it would be a good idea to find some asphalt before they attempted very much more. The railroad had become discouraged at that time. I scattered the men out in the hills; and in digging the holes we found on Section 34—I forget now the township and range, but, at any rate, about a mile and a half, I guess, from the old terminal point of the railroad, and from the

old works, a heavy vein of asphalt. It was about ten feet thick. We didn't know, of course, the extent of it at the time we struck it, but just on top it was about ten feet wide, dipping down about thirty degrees. It was very shallow; about 30% purity. I reported to both Jewett and Blodgett and the P. I. Company.

After that discovery, they seemed to want me to take care of the proposition. I agreed to do it but cannot remember just how we divided it up between Jewett and Blodgett and the Asphalt Company there, but I had to look after both places, about thirty miles apart.

About this time C. P. Huntintgon, A. N. Towne, Hatsfield, son-in-law of Huntington, Henry F. Williams, Mr. Burkhalter, I think it was—I am not sure of Mr. Burkhalter, but one of the superintendents —came to Asphalto in a private train of cars, two private cars, I think. I had forewarning of their coming by telegram from San Francisco. I sent down to Henry Miller's and got a four-seated surrey, four nice mules; took the party out; and I had a team myself. C. P. Huntington said he preferred to go with me rather than ride behind the mules. So we made quite a little trip all around through the country.

I do not know what they were doing there. They came [372] out to see me, so they said. They came out to look over the country. I could not say as an oil business. They might have come out there to go

over the branch road. I could not say what their business was. They went out with me and examined the property. We went out quite a way. I suppose we drove 10 or 12 miles or further than that. About all I talked to Huntington was about my conclusions about the territory around McKittrick as an oil proposition. I remember very distinctly that he impressed me very much as being a man that drove into details a good deal. The discussion about the possibilities of the country with me were always as to oil. I never paid any attention to asphalt. I knew that asphalt was only the result of evaporation on the surface and that the fountain head that supplied that asphalt must be below there. I remember saying to Mr. Huntington that I thought their stock would be worth more money if they had 100 years fuel down there.

I do not remember that we went towards the Buena Vista hills to the south-east. I know the valley called the Elkhorn Valley which lies between Buena Vista hills and the Elk Hills. We went down in the south-east along that valley. We went to a section there called Section 36, that had some little sharp hills in there that showed the formation very plain. I think we drove around the turn of the railroad there. There was more asphalt indications there. I had 30 or 40 men digging holes around that country and quite a number of holes showed asphalt. With us oil men, we didn't care anything about the asphalt; did not cut any figure with us at all; but it

was evidence, just the same. But we knew without that asphalt; we didn't need that; but to those who didn't know that, we would show the evidence of asphalt that was contained in these holes around. Little streaks of asphalt anywhere, most, in there, for a radius of several miles. The asphalt was evidence of the [373] existence of oil deposits, oil sands. There must have been something to furnish that evidence, and that was below.

The Elkhorn Valley lies between the Elk Hills and the Buena Vista Hills. I cannot say whether the section I have mentioned was in the Elk Hills or the Buena Vista Hills. I think we went on the west side of Elk Hills. I remember describing the synclinal in there, and believe that those hills were the uplift of the hills on the other side of there, the other formation. In other words, it was dipping towards those hills and there must be a return dip. They could not always dip one way, that was the Elk hills.

I had formed that conclusion before the visit of Mr. Huntington and his associates. I formed it when I first saw it. I could not say that I expressed that opinion in any way to Mr. Huntington or any of his associates. I expressed my opinion just as I thought it and believed it; but I do not remember just what I did say to him. I merely know that I told him that I believed in that country, and gave him my reasons just as I state now. In a general way, I explained the thing to him that I believed that that country was

not a shoe-string at all, but it was a great big field, from the evidence. The formation did not dip into the hills, where it could be faulted and broken up here and there, but dipped into the valley where it might be a very profitable field, provided you could reach it. You cannot tell, of course, what the depth was.

These uplifts can be seen when driving down towards the lake; but if I remember the line of that trip we made, we went down to the turn of the railroad, and I had built a kind of road over there for the purpose of getting water over the hills toward Lokern, toward the Elk hills.

Just prior to that visit, I had some men digging out the pits and holes I have mentioned. They came out when we had **[374]** struck this vein of asphalt. I remember distinctly that one of the P. I. people said to me "if your report is not favorable, this branch comes out to Buttonwillow"—that they would abandon the branch as far as Buttonwillow.

I think we had holes dug in the Elk hills. I am pretty positive we did. There was no asphalt in the Elk hills that I could see.

There are oil sands in the Elk Hills. I saw them at the time I was in there. I think it was in 1898. I was there two or three days. I instructed Mr. McMurdo, or somebody, to go in there and set stakes and we would locate that country—mineral locations. Those locations were made as the result of my opinion from a personal observation of the Elk hills.

It seems that at that time we were a sort of bureau of information there. There was no one else there to go to. While I don't suppose I knew very much about it in comparison with some people now-a-days, at that time they all came to me, and I suggested, without inspecting it, that it would be well to locate it, and I believe I was one of the locators. I did not make the locations myself.

That country was a blanket. It was not like the Ventura field which dips down 60 degrees where if you throw a stone out there and drill there, you will get a dry hole. The uplift in the Elk hills indicated that you might get oil at 1000 feet, or might get it at 2000 or 3000 feet, but it was shallower there than it would be in the syncline.

I made a chloroform and fire test of the oil sands I found in the Elk hills. The results showed bituminous matter—gases. The Elk hills was full of gas. It was burned with gas all over. It was evidence of a very volatile oil and evidence of an oil that might not have much asphalt base. It was very familiar to me, for I had seen parallels of the same [375] kind of formation. I saw it over in Fullerton. There were a number of places where gas could be found along the hills. I cannot say it was generally distributed through them. I know it was in two or three places.

I didn't show any of the Huntington party the indications in the Elk Hills. I did not go that far.

Relative to a comparison as to the characteristics of the formation of the Elk hills and that along the

line of contact of the Temblor Range at Sunset northwest as far as McKittrick, I will say, why, the Elk Hills, always, to me— There was an intuitiveness there that I always felt like getting away from the broken conditions I found on the edge of the formation. And the Elk Hills looked good to me all right. But that is as far as you could give any geology on it. It looked good from every standpoint; but there was no evidence of any uplift before you reached the Elk Hills; therefore the same formation that existed and was cropping out on the McKittrick side, if it was an uplifting at the Elk Hills, must be uniform, must be the same; and, as long as that didn't uplift and expose itself and spill over and make asphalt was evidence that you would get bigger, more prolific wells than you could where the asphalt was, because of the fact that it was not broken. The biggest wells in the world are where there is the least asphalt.

And as to the comparative value between the Elk Hills and the territory right around McKittrick as an oil territory, I would say that I would regard the Elk Hills as one of the best locations, without a question. I formed that impression or opinion immediately and reported it to Jewett, Blodgett, Farnum and the people who were locators with me.

I became acquainted with the Southern Pacific R. R. or the Southern Pacific Co. people about 1880 for the purposes of drilling. I had to do with them at Del Monte. They had [**376**] spent about $50,000.00 in

trying to get a well down, and Senator Felton told them that if they would get me, probably they would get a hole down. So I went over to the office and met Mr. Charles Crocker. I took a flat contract of $10,000.00 or no money if I did not get a well, and I got it. It was subsequent to that time that I went over to the McKittrick or Sunset field with Henry F. Williams.

Q. During your whole experience as an oil man, Mr. Youle, have any sums of money been invested upon your recommendations on the possibilities of oil in new fields?

A. It is pretty hard to tell how much that would be. I have drilled one hundred and seventy-six wells, and they would average $20,000 apiece. That would be a whole lot of money.

Q. Do you know whether or not the officials you have named as coming out—Mr. Huntington, Mr. Towne, Mr. Dowtey and others,—on the occasion you have mentioned, had any confidence in your judgment as a practical geologist?

A. "Practical geologist" is rather the right term. Oh, I should imagine so. I had been successful. I had been very successful at Newhall, and, as I say, I had more clothes than I could wear there, in many years, upon a flowing well, and I located every one of the wells. I just had my own way. But I guess it was luck, you know. I really don't think a man could see under the ground very far. I wish I could.

Q. Have you had any reason to change your opin-

ion of the Elk Hills as an oil territory since the time you first formed it?

A. No sir. I have no information which would change my opinion. [377]

CROSS EXAMINATION OF W. E. YOULE.

I first became interested in the oil business in Pennsylvania shortly after the beginning of the oil business in this country—I don't think over a couple of years. I worked in the first refinery that was built in the world, called Thum's Refinery, as a boy.

In Pennsylvania in those days we did not have such things as gas blow-outs. We had indications there similar to what has been termed "oil sand indications" in the vicinity of McKittrick. We attached no importance whatever to them. They were merely evidences that the early prospectors started on. Subsequent to that, we got away from that. That was up the Allegheny River where the formations lifted up and cropped out. The Indians used to gather that oil in small quantities and sell it as Seneca Oil at a dollar a bottle. The early prospectors commenced drilling up there, but well after well kept walking down the river and kept getting deeper and deeper, and the deeper the wells the bigger and more prolific they were.

The experience in Pennsylvania would not help in California. The formation in Pennsylvania was entirely different. There was no return dip. The oil sand indications in Pennsylvania have this signifi-

cance, that it taught men to be very cautious, careful. That is all.

In Virginia, you have the very identical thing—I was there, I forgot to mention. Right there they have got the same thing as here, identically the anticlines and the synclines and the uplifts and the croppings and the seepage of oil just the same as in Virginia.

I never saw an oil sand in Pennsylvania on the surface, although they were up the river, I never went up there.

In California the existence of oil sands is always [378] a good indication of finding oil in paying quantities. I will make the statement broad. You show me an oil seepage with a proper development and I will show you an oil field; and if you can find any instance it is not so, it is something I don't know of. From my experience in the California field, I will say that such an oil sand indication is always an indication of the presence of oil in paying quantities. I make that statement unqualifiedly and I know of no exception to it whatever.

My first experience in California was at Newhall for a short time. Prior to that time, I had no experience in Utah. I was there and made an examination of some territory. I discovered indications of Gilsonite and nothing else. I cannot tell what direction it was from Salt Lake City. I think it was on an Indian Reservation. I saw indications of sticky asphaltum oil in other places. I didn't think much of it because it was too far from market, seaboard. If you

had the whole Salt Lake full of oil, I would not take it as a gift. I didn't give the indications there much thought for the reason that at that time I was early from Pennsylvania and I was not very much posted on these Pacific Coast formations. I was not qualified to give a very good opinion at that time on the formations on this coast, for I didn't know the uplifts, and faults, and things that existed there as well as I did later.

I was not very much impressed with the prospects for oil in the vicinity of Salt Lake. In the first place, I didn't know the asphaltic oils at all, and I thought it was too thick and I thought it would be impossible to market such oil. No man could tell until developed as to the existence of oil in any quantity.

I was at Newhall I suppose for 4 or 5 years. About 12 successful wells were drilled there under my direction. I do not think there was a dry hole there. They appeared to be **[379]** successful from a commercial standpoint. The company was successful. They sold them for over a million dollars after they had produced many years, to the Standard Oil Company. That territory was not developed and drilled altogether under my direction and as the result of my advice. Subsequent to my first arrival in Newhall, there were others drilling there. They may have advised the company, for all I know. I didn't furnish the capital for the drilling there. Others acted upon my advice and as a result, they developed wells which were commercially successful.

After that, I went to Los Gatos to what is called Moody Gulch, near Los Gatos, where I found a spring, oil leaking out of the shale. I made a report, got a rig ready, and went in there and drilled and found oil. I do not remember how many wells I drilled, 8 or 9. I doubt whether that was commercially successful territory. It was beautiful oil, worth four or five dollars a barrel; and it was just inviting enough to drill another well and then another, hoping to get a bigger one, which often happens; and our experience as oil men shows that where you get a little well, you can get a big one somewhere near, and we were after the big well, but we didn't get it. We got a hundred-barrel well while I was there at I judge about 1500 feet. That was not commercially profitable. They spent a couple of hundred thousand dollars in there.

I next went back to Newhall and then into Mexico and New Mexico.

I was in Puente and drilled about 7 or 8 wells. I must have been there 2 or 3 years where I struck oil. There is a wonderful thing there. I will never forget it. All the money the Puente people gave me was $8,000.00, and I built a pipe line and put in all those wells, and the plants and everything, paid up all the debts; and all I had was $8,000.00 to do it, and **[380]** I did it out of the production. The first well was a producer and the second one was bigger. That is something I will never forget. Those wells that I had charge of at Puente were sunk under my advice and direction and as a result of my examinations of the surface.

I made an unfavorable report of my examinations in New Mexico because of the horizontal condition of the formation there and erosions on all sides of it. If there was any oil in there, it must have run out, a great deal of it; and I so reported. I understand that recently they have gone in there and possibly found the sand below the formation I have mentioned that is producing oil now.

I next went to Kern County. There was no oil field there then. Mr. Blodgett asked me to come up and I went to Bakersfield. I think I first went out on Kern River, about 3 or 4 miles from Bakersfield, and looked at a little outcropping that was across the river, and think I reported to Mr. Blodgett that I would rather see the Sunset field before I made my report. I then went to Sunset, this was in 1889. I was there about 2 days the first time. I reported to Mr. Blodgett that I was very much impressed with the Sunset croppings and formation and believed that there was a heavy oil certainly existing in there. As a result of my advice, the development work was begun under my control and was not successful. They got into trouble, and a year later they got me to go there and get them out of trouble, and I stayed there for eleven years. I think their lack of success at first was largely due to trouble in the mechanical end of the work.

When I went there in 1890, we started two drilling rigs. We found oil in every one of the first three wells. They were drilled on Section 28 at Sunset. I

think there were probably 50 wells sunk there under my direction or advice. That was **[381]** not a commercially successful territory. Blodgett, Beale, the Company, wanted me to drill those shallow wells to get a thick heavy oil which they called liquid maltha, and let the light oil alone. They wanted this heavy oil. They were in the asphalt business and the shallow wells were drilled near the outcrop. I told them that we could go out farther and get more oil. They wanted the liquid maltha for the purpose of flexing hard asphalt. I would have given anything in the world to have been allowed to go down further and drill a well where I ought to. I knew where I ought to go, but they would not allow it. The shallow wells were profitable at the time with asphalt at $30 a ton, but subsequently it went down to $10 a ton and that of course made a difference. After asphalt went down, wells began to be sunk further away from the outcrop and got lighter oils. Since that time, some of the territory has been very profitable. Some of the wells for lighter oil were sunk under my direction and proved successful. I drilled on Section 35 four or five wells that would do anything from 75 to 100 barrels. I drilled the Monarch Oil Co.'s wells, one or two. I drilled the Occidental. The Argoyle. I must have drilled 10 or 15 wells in that light oil. That was a very light oil that could be shipped in tanks and piped. And I drilled the Pittsburgh, that is as light oil as they have in that field with a gravity of 19 or 20. I didn't have charge of wells for other people besides Jewett and Blodgett. Myself and different employees

were helping everybody out. And it was really forced upon me to drill all the other wells. I drilled for nearly all of the people in there. And I always advised people to get out and get in there.

The first wells sunk by Jewett and Blodgett were close to the outcrop, not exactly on it.

I ceased to have active operations in the oil field about 2 years ago. I left the Sunset fields in 1901. At the **[382]** time I left there, the wells had gotten out from the outcrop at Sunset approximately a mile.

After I left Sunset, I went to Colusa County and drilled 2 or 3 wells there by contract. They were not successful and were not started on my advice. They were started before I went there. F. M. Smith had expended a lot of money there on the advice of a party who told him to drill for oil and he wanted a well drilled there and I was recommended and went to him and made a contract. I drilled wells 1700 feet deep. It was not sunk as the result of my original investigations.

I first went to McKittrick in 1890 with Henry F. Williams. Jewett and Blodgett then had some man working there mining asphalt and melting it in kettles. Later on, I made a discovery of a large asphalt deposit about a year after the road was built in there, I think in 1890. I do not remember the direction of that deposit from McKittrick. The asphalt was in the McKittrick Hills.

When I examined the formation in the vicinity of McKittrick, I found it very confusing, broken up, and

the asphalt deposits were to my mind an indication or proof of a leak. All formations that lift up to the surface may be very uniform and unfaulted for miles. They would still crop out, you would still have your evidence; but where there is a cross section of faults, then it is bad. I found little cross sections of faults towards the Santa Maria Springs, but rather northwest of McKittrick. I do not remember how far.

I examined what is now called the Buena Vista hills several times during that period. At that time, I dindn't necessarily come to the conclusion that the Elkhorn Valley lying between the Buena Vista hills and the Elk hills was a syncline, for I hadn't determined the fact of the uplift in the other hills. But after subsequent examination of both Buena Vista hills [**383**] and the Elk hills, I made up my mind there was a syncline between the Elk hills and McKittrick. I didn't find an anticline in the Elk hills.

I was familiar with the country immediately surrounding McKittrick for about 11 years. I was over it all the time. Every few weeks there would be a trip to some place until the depression of oil. Then I quit the examination. We had more territory than we knew what to do with.

I had charge of the Union Oil Company lease in the vicinity of McKittrick which was leased for oil and asphaltum, but we knew that we could not produce oil to ship at a dollar a barrel and make any money, but we could take the oil and asphalt out of it and get $30 a ton and make money. During that entire time,

I didn't have charge of the development of oil wells there. But I, at several times, advised the development of oil in between the Elk hills and McKittrick. I do not remember the number of the township. I told them I thought we would get the biggest kind of a well over there if we would just sink it down on Section 36.

I didn't at that time come to the conclusion as to the depth we would have to sink. That would be out of the question. I never heard such a question asked before. It would be far from an experienced man's ideas to think of such a thing. There is a gamble in the oil business and we are willing to go just as long as the string will let us or the money will let us, and often go very deep; and I do not believe that I ever heard an expert oil man or a geologist ask the question before what he thought of depth, because it is so utterly foolish to think that man could tell anything at all about the depth. It is not impossible to tell the depth. You might see you were in an oil zone, and you would be very unsafe to say that you could not get it within a reasonable depth. I thought we could get it within a reasonable **[384]** depth on Section 36. I didn't think anything about how deep we would have to go. I felt just as we did at Puente. My man gave it up and said—"Well, we will give this up," and I said—"Well, we still have got some string left on the spool and we will go down." And we got it. Now the depth with an oil man never cuts any figure until he can't go any deeper. And he cannot tell. I

would not to-day, myself, on a new field. It looked to me to come inside of reach or I would not have advised it. I believed we could reach it within 3,000 feet. I thought it could be reached sooner than that. I don't think it was ever reached.

Geologists, scientific geologists—Le Conte—taught in some school that there was no oil in California, and gave a good reason for it. I know that you can get all the advice you want from geologists and from Bulletins that this is so and that is so, but you cannot prove it until you put the drill on, and the drill has shown exactly what practical geology is. The drill has shown that it is very unsafe to say that there is not anything over there in those hills today at a reasonable depth.

As a result of my long experience and operation and practical work in the field, I have not come to the conclusion that the opinions and theories of scientific geologists are entirely reliable. I have come to this conclusion that a lot of Bulletins that were written in those days, without the history of drilling that has happened since then, have proven that the geology of that date was not the geology of to-day. Geologists in those days, like Le Conte, made predictions that were not true; but geologists since then have found out their mistake and don't do it. I say, a geologist will say all those hills towards the Elk Hills and that whole country "There is good oil territory," but as to the depth, I don't see how they can tell. They endeavor to tell, but the drill is the proof of it.

As a practical geologist, I would say that scientific conjectures with reference **[385]** to the depth of formations have to give way to the actual test of the drill. Under some circumstances, the depth of a formation at a particular point can be determined. Suppose there is an anticlinal exposed, and sand is exposed, pitching 45 degrees and one is at the exposure; he can measure back 45 degrees and at a thousand feet he will go a thousand feet to get it. A geologist finds that out; he measures it; he can tell. But I say that a man—for instance, here is a formation pitching 45 degrees, and bye and bye, the drill shows it is not 45 but 30, and bye and bye the drill shows it is only 15—can geology tell that? Yet it is so. Therefore, wouldn't it be dangerous to condemn the Elk Hills on the question of geology? That is the test of the drill. The drill might show that we had started out at an angle of 15 degrees, that later on increased to 20, to 30, or to 45. The geologist might be a bad geologist. Le Conte was one of them.

I have not had occasion to examine the United States Geological Survey Bulletin No. 406 entitled "Preliminary Report on the McKittrick-Sunset oil region," by Ralph Arnold and Harry R. Johnson.

I think the statement on page 210 of this Bulletin: "Assuming the thickness of the McKittrick formation to be about the same in the hills as it is in the Midway and McKittrick Districts, that is, between 1500 and 2000 feet, it seems probable that at the axis of the Elk Hills anticline, the oil-bearing zone is from

900 to 1400 feet below the surface,"—is pretty safe. They saw the anticline, I didn't. They should be able to tell.

It cannot be safe to assume that a formation at some other point of a particular thickness will continue the same thickness until it has been tested with the drill. Here is an instance. The Union Oil Co. drilled a well out here 2000 feet deep, and condemned a great big territory. Mr. Doheny, who didn't know anything about the business at all except as mining, concluded **[386]** that he found a fault. He went the other side of the fault, within a stone's throw of this well, and the result was that he got a great big well, sold the product to the Santa Fe, and afterwards sold out to the Santa Fe and made a great deal of money. Those things happen. I would not care, if I had an idea that the formation was there and that ear-marks were there, whether the Associated Oil Co. went down 4000 feet or whether they went down three feet and a half—that would not cut any figure whatever. They might get a water well. Water streaks go through any formation. That is why the oil business is a gamble. It is because there is no man, geologist, expert or anything else, who can tell you where these faults are. There may be a world of oil there; there may be a tight streak of sand filled up with clay that won't let the oil through, and you might drill right into that spot. You cannot look down and see; you may be in the wrong place. But by reason of being unfortunate and getting in the wrong place, that don't

test the territory. It takes several wells to test the territory. That well of 3000 or 4000 feet would not cut any figure with me at all. The proper test of a territory is more than one well.

Well, I would hate to put my money up on a fellow that was not a practical oil man. He is a great deal safer, and his judgment better, than the fellow who has not had any experience. They have got to know where there is not any oil, anyhow—that is, in this way, you want to know the bad places to keep from. Here is property—there is nothing there until you drill a well.

Q. That is, until you have drilled the well, it is merely a gamble, as you have expressed it?

A. It is a gamble as to quantity.

Q. Isn't it a gamble as to the existence of oil?

A. No.

Q. Never? [387]

A. I don't think so. I have never, in an experience of fifty years, drilled a well that I didn't get some oil sand, where I thought it existed before I started the well, in California. Back of east of course you could not tell, but in California you have got a chance to see. You can go in on the edge of your formation and form an opinion; you can follow that out. Now, I have been pretty lucky—maybe luckier than a good many—but for others, in the employ of other people, mostly, in my life; and my experience is it is unsafe to say, "No; there is not any oil over there," because it might be there and the evidence is there that

there is. The evidence was there anywhere—Elk Hills and Buena Vista Hills is the fold and uplift; I didn't see any anticline there. I was there several times. It might be there. Those geologists examine things pretty thoroughly, and they have found it if it is there, and possibly I didn't see it.

Q. Now, what was the direction of the axis of that fold that you found in the Elk Hills?

A. Oh, an uplift, folded—just simply rolling over.

Q. What was the axis—what direction?

A. Dipping towards the river, the Kern River, and then towards the McKittrick field, just folded—just as if it was dipping away from McKittrick, like that, and then come up here, and folded, and go down again.

Q. How great a fold? At what angle?

A. Oh, I couldn't tell. I didn't examine it carefully enough for that—the angle of it; but it was folded.

Q. Did you make any determination as to the probable depth of the overlying formation, covering the oil formation?

One of the hardest things ever asked of an oil man is to determine the probable depth of an overlying formation covering the oil formation. Intuitively I know an apple is an apple; [388] and I could not analyze it, but I know it when I see it. There are lots of things that you can see but could not explain; you know it though just the same. Take a man 50 years in the business and he looks at a thing. Without

doubt, it is the hardest thing in the world to prove facts without the drill. The opinion is there. My opinion was that that was a prolific oil field, and if I had had my way, I would have drilled there in preference to over at the McKittrick side.

I did not at any time make any determination as to the probable thickness of the overlying formation covering the oil formation in the Elk Hills, and in advising with reference to that territory, I never made any statement to the persons who made locations there as to the probable depth they would have to sink their wells. I am sure that I did not say anything to them about it being deep territory. I told them to get a rig that would go deep. I believe I got a rig ready for it but didn't use it. We had the rig over on 34 and I told them that we could get that rig over there, but I suggested that we had better get water over there first to furnish the boiler. I don't know what happened. Something delayed it and then came the low price of oil and they said they didn't have any money and they didn't pay much attention to it. I was getting ready to get out of there myself. I didn't pay much attention to the Elk Hills in a particular way.

My attention was chiefly directed to the vicinity of McKittrick, and a great portion of the time in locating a lot of land in there, looking over it with the idea of locating it for mineral locations. That was within a radius of 3 or 4 miles of McKittrick.

I crossed down into what is called the McKittrick

Range toward Midway and Sunset many times and am very familiar with most of it. On the line of outcrop along that line from McKittrick [389] to Sunset one side of the formation is in and out. The preponderance of evidence there is that it is along the whole length from Temblor to Sunset and to the San Emedio Mountains. The formation lying West and South-west of the outcrop toward the Temblor Range changes in there. It is mostly shale, and a little behind that, overlaying it, is sand rock. No oil sand, sandstone.

As you go further into the hills I made one or two tests in there on what is called the south side of the anticline, and we went through a little shale about 300 feet, and we got out of the shale and struck a soft sand rock, and we got wells that flowed water. That was on the South dip looking West on the strike. The formation lying to the West was the oldest.

We made some determination from the indications or sections of the ground as to the thickness of the overlying formation from McKittrick toward Midway. But those opinions on measuring the outcrops or rather, forming opinions on the measuring of the outcrops, we found to be by experience very misleading. Sand is plastic and thins out in the outcrop. In going over it, it pinches and thins out. The sand stretches over that fold and that is the reason for the fault—it is thinner. In other words, these formations were horizontal and fell down by the shrinkage —not an upheaval. They fell down and broke the

weak parts; and we know from experience and not from theory that those outcrops were thinner than those deeper in the formation. My practical experience in the field leads me to believe that this was probably due to a subsidance and not to an upheaval.

As to the Elk Hills, there was evidence of an upheaval or fold. Naturally, that formation didn't spill over there and show a lot of asphalt, and therefore it looked to me better than the McKittrick side because it was intact and the oil was there, in my estimation, because it had not wasted. I had no reason to believe that it could get away from there. There was nothing to [390] show that it could, and it must be there, because it hadn't got away. On the edge above, it was quite small—from the pitch of the formation, I judge it would be too deep in the valley to reach it.

Out in front of the Sunset was the Buena Vista Hills and I always told them that I believed more in the Buena Vista Hills and the Elk Hills than I did on the edges of the Sunset and McKittrick, from experience in those fields, and that is why I formed that opinion.

I believed that in the valley it was very deep to the oil formation.

I was unable anywhere to find a section of stratification or formation from which I could determine in my own mind the probable thickness of the overlying formation; but what looked good to me was, there was no evidence that it got away—that it was cut out.

In my opinion, the upheaval in the Elk Hills was probably caused by the shrinkage of the earth. As the formation is getting older and cooling off, it goes down here and turns up at any place and folds along. I believe that is accepted by a great many men that are well posted in formations to be a very good theory and, perhaps, correct. As to what I mean by referring to the Elk Hills as being a fold, I will say that on the McKittrick side of the formation it is dipping at an angle of about 30 degrees, but the valley is nearly level. Now that was new to nearly everyone to find a formation dipping out into the valley. But I concluded that that formation must, to a certain extent, conform to the shape of the valley, or else the valley could not have been there. It would have been uplifted hills like all of that country is if it was not that way; but the depth is hard to determine, because there was no way of determining it without drilling a hole. But at the Elk Hills you could see it lifting **[391]** up, with no evidence of faulty conditions like a running away of millions of tons of asphalt. That was why I thought it would be a good place to drill a well, because of that uplift. That is the difference between an anticline and an uplift. That is folded without breaking it. The anticline is broken into and goes this way and that. The distinction I desire to make between a fold and an anticline is that the anticline is a broken fold according to my way of determining it.

My opinion is that there was but one fold in the Elk Hills.

The Elk Hills country showed to me to be an uplift.

No well was started in any portion of the Elk Hills during my time there.

When I started the men out to prospect for asphaltum, I didn't tell them what particular territory to go into. I know two of them were working in the Elk Hills. I saw indications of asphaltum there on the West side down near the railroad. Aside from those, I saw no indications of asphaltum there. I have never seen indications that appeared gray on the surface and dark beneath it.

I saw oil sand pretty near the summit of the Elk Hills. I do not remember the section.

I have a good feeling for the railroad people and everybody else, and I am here an unwilling witness, and I don't want to make any mistake, and I give the testimony as I saw it. I didn't post myself in any way and don't remember all the directions there or the contours.

The oil sand I saw was on top. It seemed to be a blow-out of volcanic matter—not volcanic matter, but as if it was a chimney. It was on the ridge.

I am familiar with the Miller & Lux Headquarters Ranch. I have been there and drove into the Elk Hills from the ranch. **[392]** I should judge the blow-out was about a mile and a half from the ranch, West I think.

It was not the blow-out from which I made certain tests. I got samples in many places. I was there 2

or 3 days and I was there to examine and made examinations of that country for at least 2 miles in extent—all different places. The samples I took at two different times on two different days and perhaps three. The territory from which I took the samples covered a mile, anyway, if not longer, about parallel with the strike of the country. I think I got some of the samples in a gulch. I got some on the hills. I found no asphaltum, but I found a sand that was percolated so much that you could put it on a fire shovel and heat it a little and it would blaze. And in making the chloroform test, you could get particles of oil.

You could get oil from the territory I examined on those occasions. At the present time, I am not able to give the exact measurements of the territory where I got the samples or the exact sections.

I was there and authorized the location of the lands after an examination. I didn't make the locations myself. I walked over the ground and made a map and had information about it and directed the men where to make the locations and build the monuments. That was in 1898 or 99 as I remember. The locations were undoubtedly made with reference to section corners.

I found through the Elk Hills many evidences of gas. That was shown by the peculiar look of the formation that has been attacked by gas. I don't know as I can describe it. It is a grayish color and has a glassy appearance, and manifests itself everywhere where gas is escaping. My first impression

when I saw this place was that there was evidence of gas there. One or two places we put a can over it and let it accumulate, and then lit it. That was over near the apex that I spoke of that had a [393] hole in it. They and the oil sands were all there together. And as far as an oil sand is concerned, it cannot be said that we found an oil sand—any sand is oil sand that has got oil in it, and any sand can have oil in it if the oil attacks the sand or percolates it. It is not necessary that that was an oil sand. That sand might be any sand that is attacked by oil that comes through the crevices. There was nothing to indicate that that sand contained an oil reservoir. It might have been. The gas escaping there would be evidence of this: that the gas would come—it was not washed—I can tell a washed gas by the smell of it. It didn't come through water, and it was evident that it was pretty near the home where it belonged. The occurrence of gas would be an indication of oil. I didn't think it necessary to make a test to determine what kind of gas that was. It was not marsh gas. I can tell the difference between marsh and all other kinds of gas without a test. I could tell it in the night with my eyes shut. The evidence of gas is an evidence or indication as to the character of the formation; if it it corroborated by the contacts. It has no significance as to the uniformity of formation; it is sometimes evidence of disturbed formation, a broken or faulted formation. I have sometimes found that to be a fact in California oil fields.

RE-DIRECT EXAMINATION OF W. E. YOULE.

I know the Standard Asphalt Company. I was it's Manager and may have held some stock and been an officer in the company. I don't remember that. F. S. Douty, Secretary and Treasurer of the Pacific Improvement Company, and Edward Hayes, his assistant, were also officers in the Standard Asphalt Company. I think Douty was it's President and Hayes it's Secretary.

The affairs of the Standard Asphalt Company were undoubtedly controlled by the Pacific Improvement Company. They **[394]** furnished me with passes and I made a weekly report to the P. I. Co. at San Francisco. I think when the Standard Asphalt Company started out, it and the Southern Pacific R. R. Co. had offices at 4th and Townsend in San Francisco.

Money was spent on the location made on my recommendation in the Elk Hills; they built roads and did assessment work. They intended to go in there and I got a rig ready to send over, and some way they fell down. They said money was getting scarce and oil was cheaper and transportation hard to get.

There was no evidence of any disturbed formation in the Elk Hills. There was very little disturbance there that I saw.

From my observation and examination in those hills, I would not have advised that they be sold for their agricultural value, and the majority of geologists would not have so advised. I most assuredly

would have advised my employer to acquire the lands at a price in excess of their agricultural value because of their oil possibilities. The lands had no value other than for the purpose of drilling for oil.

As to whether an ordinarily prudent man would be justified in the expenditure of money for developing those lands, including the lands in controversy here, with reasonable expectation of developing a paying oil property, I would say that I would have advised any company to furnish the money to the extent of $50,000.00 or $100,000.00 to develop that country.

RE-CROSS EXAMINATION OF W. E. YOULE.

It would be hard to say how deep a well could have gone in the Elk Hills for $50,000.00. I have taken flat contracts with the P. I. Co. and Borax Smith for a good deal less money. It cost me $7,000.00 to go about 2,000 feet for the P. I. Co. I drilled a well in Santa Maria 3,000 feet that cost $4,200.00 about **[395]** 3 years ago. I had had no experience in that field to the extent of $50,000.00 in one hole. I could drill 3,500 or 4,000 feet for $50,000.00 or less.

I did not contemplate having to go that far. The oil business is a gamble. It is not like farming. You just bet that you don't go down that deep and that territory was good to have bet on. If you win once in four or five times, you make a lot of money. That is the reason why I would have advised people to spend $50,000.00 or $100,000.00 there. I wouldn't advise

widows and orphans and dishwashers and cooks who could not risk money; but if you wanted a chance to make a million dollars, I would pick the Elk Hills quicker than any piece of land in there, because the formation justifies what I say. The reason that I say it takes more than one well to determine the character of a country is that experience has taught me and others that we might drill a well in a faulty place, as I have described, and not get anything, and changing the rig around fifty feet, probably get a well at 800 feet when you didn't get it in the other at 1500 feet, and didn't get anything. It takes more than one hole. I know a man that had sixteen dry holes and made a million dollars after that. He got oil in the same country. He crept out and got it.

The fact that oil is found on one section is not evidence that it may be found in every section in the township; there may be kidneys. Oil is not contained like a river under ground, but in kidneys. While you are in the oil sand all the time, we know by experience that there are dry holes drilled in oil sand. Had those been drilled, the first one, two or three, you might condemn the territory and throw it out, the same as the Associated did. It might have been possible to make a well for the purpose of getting the land cheap. I have had fellows do it on me, who owned the ground, and get the sand and wouldn't **[396]** tell about it and you had a dry hole.

The discovery of oil in one section or quarter section does not indicate to a practical oil man that oil

will be discovered in every section in that township. It implies this,—if you get oil in this section, experience has taught us that oil is not just in that little space in that well, but that it has a direction somewhere. And immediately you will find oil men locating and acquiring lands quite a distance from that well. You find that among oil men because experience has taught that there is a direction to that oil vein. That is why I advised the location of several sections. There was an uplift and fold and nothing to indicate that the oil had gotten away. It was not because of any wells but because of the surface indications alone.

There were no oil wells at McKittrick at that time. I think the first well came in in 1902.

In forming my opinion as to the Elk Hills, I don't think I thought about the indications of asphalt at McKittrick. My whole opinion and my whole thoughts were upon the possibilities of the Elk Hills as an oil field. I was an oil man; not an asphalt man; and I believed that the asphalt evidence was evidence of a great big field of oil in that country.

The McKittrick side was dipping towards the Elk Hills and the asphalt at the McKittrick side had faulted and broken; but on the Elk Hill side it was not broken so much but folded up, and I made up my mind that there was a fountain head of oil for all this alike. **[397]**

CHARLES W. LAMONT, a witness called and sworn on behalf of the Plaintiff, testified as follows:

DIRECT EXAMINATION.

I am 52 years old and reside in National City, San

Diego County, California. My occupation has been mining and prospecting since the fall of 1879.

I went over into the Elk Hills in the fall of 1899 with my partner, Si Drouillard, who was an old prospector. He was pretty familiar with that country, had been there a long time.

I know what they call the Temblor Range.

When I went to the Elk Hills with Drouillard, we discovered a blow-out of what we considered brea at that time, an indication of oil, and found a gas blow-out and shale, brown, black, blue, white, and found gypsum and Fullers Earth and a few other conglomerations in there, almost due South and a little West of Miller & Lux Headquarters Ranch. The largest indication in the bunch we found was on what afterwards proved to be Section 32, Township 30, Range 24. Tom Baker, Jeff Packard and Drouillard were associated with me then.

We picked some of the shale and sand where the blow-out was in Section 32. It was decomposed shale and there was strata of oil sand there, and the shale was very hot. There had been a rain before then, a week or so, and while the weather was cool and the day was rather cool, that formation, after we got under the surface, was very hot. In fact, it was too hot to handle pleasantly. The indications of oil there was just the oil sand and that shale that we know goes with an oil formation.

On the North and along the line of contact from McKittrick towards Sunset right close to the lake, we

saw live oil coming out of the ground, floating on the mud and water, towards the Easterly and Northerly end of the Elk Hills. [398]

After seeing these indications of oil, I located seven sections of land right in what I took to be the anticline along there, and then I formed another company and located several more sections. I don't remember how many. The first seven sections located were located Westerly from Section 32, the original discovery, and extended over to Township 30, Range 23.

Besides the first bunch of associates, my associates were Jewett and Blodgett and other members of the Kern Co. Bank—N. C. Farnum, Bert Packard, Roper and several more. I do not remember all of them.

I concluded that Section 32, where the oil sand was, was the top of the anticline. I have seen indications of oil in Section 14, 30-22, where the railroad goes through, but I never examined it closely. It looked like oil sand and brea. It would be what I took to be the West end of the anticline at that time.

I certainly regarded the Elk Hills country at that time as good oil territory and the only conclusion I have come to since then is that it was better than I thought it was in the first place. I have never had any reason to think otherwise, on account of the development of gas which I didn't think existed in such quantities in that formation.

I know John Jean. I took him out there as a sort of agent for some of the citizens of Bakersfield to report on the ground, and in consideration thereof he

was to have a claim, and he agreed to keep the find quiet because it was not generally known that there was oil in there.

The work we did in support of our locations was principally surveying and road building. We ran some cuts into the bank of the gulch that was there and dug a hole. We made different roads—if I remember right, it was about 5 or 6 miles of the main road and then little branch roads as we needed to go around in different places. If I remember right, we started building the **[399]** roads early in 1900 and contined for 5 or 6 years and kept up the locations continuously most of the time—not entirely during the years 1903-1904. Some of the rest of the company went out and made locations, but if I remember right, I think the last time I was out there was in 1903. We then held two sections of the ground.

I have been over most of the Elk Hills in 30-24 and 30-23. I don't think it is available for agriculture. Never found any water there. Sometimes in an extra good year, there is a little grass on the South slope, but in other years, there is nothing. I don't think there is any value there except for oil, gypsum and Fullers Earth. I offered to rent our ground at one time for $10 a section to a sheep man, and he wouldn't give it unless we would agree to put water there.

CROSS-EXAMINATION OF CHARLES W. LAMONT.

I first made locations in the Elk Hills the beginning of November, 1899. The first location was on Section

32, Township 30, Range 24. I located that because in my judgment there was the best indications of oil. I located it for oil and gypsum. I couldn't tell how much gypsum was there. I never tried to develop that no more than to dig into it. Never tried to market it. I didn't try to find out whether I could market it or not. I was not interested in that part of it. I was interested in the oil and located it for oil. Gypsum was included in the notice. It was located for oil along with the other minerals that the ground contained. I would have located part of it for gypsum but not as much as we did locate.

I discovered oil sand at the blow-out I have mentioned. Aside from that, I made no discovery of oil on any of the claims that we located during the period I held them. I never marketed one cent's worth of material, Fullers Earth, gypsum, clay or any- [400] thing else from those locations. Held about two sections for ten years. I didn't do any assessment work on them. This was not because I did not consider them worth sufficient attention. I was broke.

REDIRECT EXAMINATION OF CHARLES W. LAMONT.

There was an oil depression from 1901 lasting for several years, and it was just as good as insulting anybody to ask them to put their money into it at that time. That was the whole reason for our failure to try to influence people there or get money to carry out the locations.

RECROSS EXAMINATION OF CHARLES W. LAMONT.

The depression in the price of oil was the cause of the failure to get people interested in our locations, and at that time gypsum was so plentiful around there that it wouldn't pay to put it on the market from that piece of ground unless we could develop the country and put roads in there. Up to that time, we hadn't put roads into the gypsum beds. We didn't develop them so that we could ride down to them in a wagon because we didn't want to use the gypsum beds at that time. We were saving them for the time when we could get them out of there. We didn't develop the ground for either gypsum or Fullers Earth and the depression in the price of oil prevented us from developing it for oil.

JOHN R. SCUPHAM, a witness called and sworn on behalf of the Plaintiff, testified as follows:

DIRECT EXAMINATION

I reside in Oakland, California. I was employed by the **[401]** Central Pacific Railroad Company, the Southern Pacific Railroad Company, the Southern Pacific Company, the Western Development Company, and the Pacific Improvement Company. I was a civil Engineer at that time.

I was employed by the Central Pacific Railroad Company in the fall of 1865 and was employed as assistant engineer on the Central and Southern Pacific Railroad Companies and served in that capacity for 8 or 9 years in the usual affairs of an assistant engi-

neer—surveying, calculating quantities and directing the construction of work and the like.

About the year 1874, I was recalled from the field work and had my office in the Engineering Department, and was used as a sort of consulting engineer by the directors of all the companies, and from that on I served them in that capacity, reporting to the board of directors who requested me to make an examination or a report.

The directors of the several companies were Leland Stanford, Charles Crocker, Mark Hopkins, C. P. Huntington, afterwards D. D. Colton, Judge F. B. Crocker and Col. C. F. Crocker. I think A. N. Towne was afterwards a director.

Mr. Towne was the General Manager of the Central and Southern Pacific Railroad Companies.

As consulting engineer, I came into contact with the directors frequently in examining various subjects that they wished me to report on. I examined mineral lands in which these companies or these directors on behalf of these companies were interested. I examined and reported on the Carbon Hill coal mines in the State of Washington, afterwards purchased by the company; I examined and reported on the Green River coal mines and the small outcrops of lignite coal in California in Santiago Canyon purchased by Mr. Crocker afterwards; and at Hatchett Creek, Shasta County, and in Arizona and Texas, at Eagle Pass—I had work done **[402]** there. I had lines run into some coal fields in Northern Sonora

that I thought was of some importance, and in many other places. When I say that I had a line run in, I mean survey run in.

I had the company, with the encouragement of Governor Stanford, convert their principal stations into meteorological stations. I supplied them with rain gauges and thermometers and wind gauges and got up a system of reports which, I believe, has been maintained up to the present time.

I made a report to Governor Stanford on the artesian water prospects in the San Joaquin Valley—especially the southern portion of it reaching into Kern Valley—and had a well sunk at a point about two miles south of Delano station, and at something over 400 feet got a splendid artesian well, which was the first artesian well in that valley. The well was south of Visalia and north of Bakersfield.

I have been in the engineering business continually since that time and that included the examination of lands for their mineral value.

I had a conversation with Mr. A. N. Towne, General Manager of the Southern Pacific Railroad Company, in 1887, in which he asked me if I thought the asphalt deposits west of Bakersfield would justify the building of a road in there; and after some general conversation about it, I told him that I had not seen that particular portion of the strike where the asphalt cropped out and manifested itself, and he said: "I think you should go and see that on your way south, and when you come back, come in and report to me."

I went to Asphalto and saw all the asphaltum outcroppings and deposits in that vicinity and I saw where they had been extracting asphaltum in trenches and pits, and saw the motion of the flow, and made various experiments with it. I went to the southwest into the pass between the hills and examined the country lying to the southwest. I was convinced in my own mind as soon **[403]** as I saw the escarpments there that it was oil land and that we would find seepages and manifestations of oil in those hills to the southeast. We drove down between the Buena Vista Hill on the east and what is now called the Elk Hills about 7 miles into a sort of gulch or arroyo in township 31-23, and went 2 or 3 miles into the hills into township 30-23, about two and a half miles in that township. I then travelled to the south from that point coming to the head of another arroyo. The next day we went about 4 miles further to the southeast and walked over the hills. I think we got into what is now section 32 where I found the best oil seepage that I had seen yet, although I had found it in these other arroyos, but that was the best manifestation of all. The sandstone at the southwest edge of these hills dipped decidedly to the southeast, showing that we had passed an anticline or the presence of an anticline. We found the oil seep in township 30-24, I think, by estimating the distance that we had gone to the southeast.

I examined the ground I had passed over as carefully as I could and noticed shales and the occasional exposure of sandstone, and was studying carefully to

find asphaltum outcroppings—brea, as we called it then. I thought the land was underlaid with oil.

On my return to San Francisco, I described to Mr. Towne what I had found there at Asphalto in the outcrop of asphaltum, and the sources of the asphaltum. When I had finished a description, I told him that I thought these hills lying to the east were overlaying the oil measures, and that they would turn out to be very important in their future development. I refer to what is now called the Elk Hills.

While I was discussing the matter with Mr. Towne, I think he had sent for Col. C. F. Crocker. Crocker came in and Towne, looking up, said: "Scupham thinks those hills south of Miller & Lux ranch are overlaying an oil deposit," or words to [404] that effect. Mr. Crocker said: "Well, it is a good thing that there is some value of that kind in that land. Otherwise, it would be a very poor asset for the company." He was standing up while that was being said; and when we were discussing it, he came and sat down—the three of us together, and he asked me why I thought that, and I went into the details explaining why, and discussed the matter with him pretty thoroughly.

I thought at that time that the Elk Hills were valuable lands, but the lands lying to the west and north were of much less importance. I stated that to Towne and Crocker, perhaps, without any explanation.

I was acquainted at that time with Jerome Madden

who was land agent for the Southern Pacific Railway Company, and when I left Mr. Towne, I went into Madden's office and found that the land in this township (30-23) was not all surveyed. About two-thirds of it, the southeast two-thirds was unsurveyed.

I told Madden that I thought that was going to be valuable land, and that it was overlaying an oil deposit, and that they ought to have the survey completed there so the land could be selected. My recollection is that he consented that that was the thing to be done. I had no authority to direct Mr. Madden to do anything. It was merely a suggestion on my part. Steps were taken at that time, or shortly after, to have the land surveyed. I had the conversations I have spoken of with Mr. Towne and Mr. Crocker with reference to the lands known as the Elk Hills in 1887.

CROSS EXAMINATION OF JOHN R. SCUPHAM

In my talk with Mr. Madden, I found that the territory I visited in the Elk Hills had not been surveyed. On my second trip to the Elk Hills, I went into what I calculated from the direction and distance we had traveled, to be 32, Township 30-24. That **[405]** section was not marked. The outline of the township had been surveyed on the west and south, but it had not been sectionized. I don't know exactly when it was surveyed. It had been surveyed by 1893. The portion of the township we were in had not been surveyed when we were in there.

In the conversation with Madden in 1887, I told him that I thought 30-23 should be surveyed because of its oil possibilities.

I think an application was made for a patent to that land in 1893, but I am not perfectly sure of the time.

I observe from Government's exhibit "E", a certified copy of the township plat of 30-23, now called to my attention, that the township was not surveyed until 1901. I didn't have it in my mind that way. It was not made as a whole until 1901. The east boundary at sections 24, 25 and 36 were surveyed in 1893.

It appears that Mr. Madden didn't immediately proceed to adopt my suggestion so far as obtaining results are concerned.

I was not later called upon by Mr. Towne, nor any of the officials of any of the railroad companies, to make a further investigation of this territory. I did not prepare a written report of the trip I have referred to. I made the report verbally. I had a talk with Mr. Towne immediately after I had had the conversation with Mr. Madden. Madden was not present during my conversation with Towne.

I did not go so much into detail in my conversation with Mr. Madden as I did with Mr. Towne. I told Mr. Madden that I thought this territory was going to be very important for oil on further development, that I had seen seepages in what would be covered by this Section 30-23. I had seen them at the head

of the arroyo and at one or two other points. It was just faint manifestations of oil in 30-23, I think.

I was gone five days on the occasion of that trip and was two days in the hills. I was with William Corral who is **[406]** dead now. The oil sand was at the head of a little arroyo. It was at the bottom where the stream would run in wet weather, about 12 feet above the bed of the canyon, as I recollect it, may be. There was a little stain on the other side. The oil sand dipped toward the Southeast and the strike was Southeast and Northwest.

Where we first saw the sandstone, the dip was to the East. We were going up the dip. It was nearly flat, but it rose a little in the direction we were going, North and East. On the other side of the canyon, the stain dipped towards the East and South. I had a general impression that the strike was to the Northwest. It was covered with surface material so that it was not clear on the lefthand side. I could not determine the dip at that point. It was covered with debris from the ridge. I think the dip was the same on both sides. I assumed it was. I went some distance beyond the hill, but didn't see where it came out. It pitched under the surface and was getting deeper. It might have been in section 32-30-24. It was revealed at several points, rising up on the hillside towards the Southeast.

I severed my formal connection with these companies in 1885, but I was still consulted by them—by the directors—after that in different operations until

within 2 or 3 years after that time, before 1890; and since that time I have been engaged in private practice entirely.

I was consulting engineer for the directors of the Southern Pacific Company. I cannot state the year that company began operating lines in California. It was some two or three years before the time I retired from active service as assistant engineer. Prior to that time I had acted as assistant engineer for the Central Pacific Railway Company on its lines as far as Ogden, and in the surveys beyond Ogden, and I also acted as engineer for the Southern Pacific [407] Railroad Company on its lines in the southern part of California and Arizona and New Mexico.

In 1883, the Southern Pacific Company took over these properties under a lease and operated the same, and at that time, the active operations were mainly carried on by the officers of the Southern Pacific Company. They were still directors in the other lines and still directing their affairs.

Mr. A. N. Towne began his career as General Manager of the Central Pacific Railroad Company. It was not my affair to get the exact status of those gentlemen. I was reporting to them.

After the Southern Pacific Company took over the properties, Mr. Towne was Manager of the Central Pacific line between Sacramento and Ogden. I don't know that he was paid entirely by the Southern Pacific Company. I don't pretend to know who was paying him. I don't know anything to the contrary.

The same was true with reference to the lines belonging to the Southern Pacific Railroad Company which had been taken over by the Southern Pacific Company under leases. Mr. Town retired from active work in 1895, maybe. I think maybe he died in 1896. He was in poor health for a number of years before he died, and the active management and control was in other hands during that time. He lived in San Francisco and was in Palo Alto on account of the climate for short intervals.

At the time I had the conversation heretofore mentioned, in 1887, with Jerome Madden, he was land agent of the Southern Pacific Railroad Company, and Mr. Mills was land agent of the Central Pacific Railroad Company at that time. Those two offices were entirely distinct. Mr. Madden continued to be land agent of the Southern Pacific Railroad Company for about twelve years after that time and was succeeded by Charles W. Eberlein about 1889 or 1890.

My entire report of the trip I have mentioned was made **[408]** in that conversation with Towne and Crocker, and I did not write any letters embodying any portion of that report and, so far as I know, it was not kept in any way that was at all permanent.

I was sent in that country to examine into the asphaltum situation. That was what took me there first. I was informed that some effort was being made to have the railroad constructed in there on account of the asphaltum production. There was no discussion at that time as to the development of oil

in that vicinity on the part of the officials of the company or by Mr. Towne; but he had in mind the asphaltum and that is what he called my attention to, to see if it was worth while extending a branch for the business that might be developed. He was inclined to be skeptical. In my report in that conversation, I went into details as to the quantity and quality—resources and asphalt—I was impressed with the great resources of asphalt at Asphalto in the vicinity of what is now known as McKittrick. I was not impressed with the possibility of the Elk Hills for asphaltum. I reported quite fully in that conversation with Mr. Towne with reference to the asphaltum and its possibilities for railway tonnage. There was a discussion at that time with reference to the development of oil, but not for its development for fuel for the railroad. I mentioned my conviction that the shales and sandstones in those hills were overlaying an oil formation and that there was not any doubt of it in my mind. Mr. Towne had been constantly in the habit of suppressing me, thinking I was too enthusiastic as to resources, and he took that stand in that conversation. He said: "Well, couldn't all these things be that you are describing and nothing underlying it?" I explained that the old formation would contain a certain amount of hydro-carbon, and if it was pierced at the right place and in the right way, it was sure to bring it to the surface. Well, we discussed it as men who were defending an idea, and the impression was very strong in my mind at that time. He was inclined to be sceptical.

I have no doubt but what Mr. Crocker and Mr. Towne were [409] convinced that it was an oil formation. It was Mr. Towne that suggested the matter of my looking up the survey in Madden's office. I think I finally succeeded in convincing Mr. Towne. I got that impression.

It is likely that I made some estimate as to the depth that the oil would be in, increasing depth as we went to the southwest; but it would be struck at a very reasonable depth where I had seen the seepage —what I said then was probably that it would be 800 or 1200 feet. I reached that conclusion as the result of the two short trips in the hills.

I had seen a good many oil wells prior to that time. In the year 1875, I think, I went with McPherson into the Moody Gulch in the Santa Cruz mountains and stayed with him two or three days examining their oil wells at that point; and also at Mr. Colton's suggestion, I went to the Pico Canyon to examine into the oil wells there, their depth and the formation and everything connected with them. He was interested in oil there. He was a director in the railroad at that time. I studied the thing somewhat. I examined that ground near Oil City at Coalinga. There was practically nothing there at that time except just a supposition. I was more or less an amateur in the oil business.

After looking up the matter of the survey with Madden, I went back to Mr. Towne a day or two later and reported to him that the land had not been surveyed.

Mr. Towne did not send anybody else in there immediately after I made my report. He did within a year or two. I don't know whom he sent. I suggested that Mr. Ireland, the State Mineralogist, had Goodyear as a field assistant, and I had employed Mr. Goodyear to examine the Cow Creek coal formation with me a year or two before that and I got a very good impression of him and suggested that it might be possible to get the State Mineralogist to make some research in that section. I got the impression that that suggestion was followed in a way and think **[410]** Mr. Goodyear went in there. I heard that some other person had gone in. I have forgotten who now. I remember the name of Burch, but I do not know whether he was the one that went in or not. I did hear that someone had been sent in for that purpose. I did not hear that his report was adverse; I got a different impression. I did not pay any attention to it at that time.

I thought the Elk Hills of far more importance in the vicinity of McKittrick because, looking at the matter in a particular way, the formation sloped from McKittrick to the southeast, and to the northwest and west the formation was faulted and flextured very much, and it was not so likely to be productive of oil as where the formation was more uniform in its slope. My impression is, and it is very likely, that that was discussed in my conversation with Mr. Towne. I informed him that the Elk Hills were better than McKittrick and that I believed that oil could be found in that territory.

It is a question of guessing what was underneath the ground and I would repeat what I said at that time, as near as I can recollect, that where you have the oil measures, they were contained in the large—that is, in a thousand acres—any amount of hydro-carbons, it might be concentrated within one or two miles in that area or it might be disseminated through the whole extent; but there seems to be a certain relationship between the amount of hydro-carbons and the amount of superincumbent materials in these oil formations. I said to Mr. Towne and Mr. Crocker that the oil did extend under there and it probably would be very important. I thought I knew, from the manifestations which I observed on the surface, that it did extend under there in paying quantities, but I didn't know it mathematically. The surface seepage indicated most positively that there was oil in that portion in the vicinity of the seepage. It was a fresh seepage. Such indication could not be found in an exhausted oil sand. That it was an active [411] seepage was not visible to the unassisted eye, but it showed freshness of the outflow of oil. The stain was a fresh stain. I could not detect actual oil, but the stain of oil was necessarily recent. There had not been a complete evaporation of it. I don't think that could be true in a bed of oil sand that was not productive, not with all the other manifestations accompanying it. The other manifestations were the heavily bedded shale and sandstone in succession, and the tight clays and other manifestations of oil forma-

tions. I was deeply impressed with the belief that it was a formation in which you could find oil, but did not actually find the oil; I found the presence of it.

I next returned to that territory in the autumn of 1893, I think. I went entirely across the Elk Hills at that time on horseback and rode down to the point that I spoke of before which turned out to be probably in section 32 of 30-24, and afterwards went south from there and then across the shores of Buena Vista Lake, and then back again on the Elk Hills. I was there one day.

I made a report to my associates as a result of that trip. I had a section of forest land in the Forest Reserve and some gentlemen suggested that I get lieu land for it and locate it in that section of the country. I did not do that. This was a private venture, and in no way connected with the railroad company, and my associates were strangers to that company. I was not an official of the company at that time.

REDIRECT EXAMINATION OF JOHN R. SCUPHAM.

It was about two years after I had the conversation with Mr. Towne and Mr. Crocker that the railroad was built from Bakersfield to McKittrick.

In connection with the determining of the artesian zone or basin in the San Joaquin Valley which I have mentioned, I had **[412]** occasion to determine at that time the depth of the water, and in examining coal lands, it was a part of my work to determine the depth of the coal; making an estimate based on the slope of

the strata and the point for a workable shaft. In a broad way there is a relation between the means by which you determine the depth of artesians basins and coal measures and that of oil measures or oil sands. The stratification of a particular section would govern in each case and that is why I say they are analogous.

In examining the seepage in 32, 30-24, I found no indication of a great waste of oil there. The seepage was very distinct, but there was not any great manifestation of it. It was considerably smaller than the waste around McKittrick.

My failure to use forest lieu selection rights in that section in 1893 was not due to my disbelief in the Elk Hills as an oil property. I had confidence in my impression by my trip at that time, but other matters governed me. I had a good offer for the land and sold it to Charles Doe.

On cross-examination, I said that the dip of the Elk Hills on the apex of the anticline was south of east, and that going up it was to the northeast. I account for that in this manner. I was observing closely the slight dip of the strata as we climbed the hills, watching the compass, and I found that the strata was rising to the north and east, and when we passed the summit and got near the head of the arroyo facing the other way, going to the north and east, I found that the dip—there was some dip south of east in the strata that showed at that point; and I assumed that that was a local flexure of a strata of the line that we happened to strike at that profile.

The Mr. Crocker referred to in my statement relative to the conversation I had with Mr. A. N. Towne was Mr. C. F. Crocker, usually called Colonel Crocker to distinguish him from his father. **[413]** Mr. Crocker was a director and I think Vice-President of the Southern Pacific Railroad Company. It might be Second Vice-President. During my employment, Leland Stanford, Charles Crocker, F. B. Crocker, C. F. Crocker, C. P. Huntington, D. D. Colton and A. N. Towne were directors and officers of the Southern Pacific Railroad Company and the Central Pacific Railroad Company with the exception, possibly, of Mr. Towne. He was an officer, but possibly not a director at that time. They were also directors and officers of the Southern Pacific Company and they controlled the stock or had nearly all the stock of the Western Development and the Pacific Development Companies but there were some other employees acting in an official capacity in those companies.

I have bought and sold oil lands in California. Before any development whatever was made in the Elk Hills, and merely for speculation purposes, considering the ground with reference to the known oil seepages and other conspicuous evidences which I have recited in the surrounding and adjacent country of oil, and from my experience in the examination of oil lands, I will state that the lands in 30-23 have a high value relative to other lands.

As to the value of sections 15, 17, 21, 23, 25, 27, 29, 33 and 35 of that township, I will say the lands I have been holding in the Sunset country—relatively the

same—near an anticline and land that is not recognized by anybody as being oil land, is yet held, by those who are offering to buy, at about $2000 per acre, and those who actually contract for it get a price as near $1000 per acre as possible. If I were selling the lands in the sections referred to, I would want to get several hundred dollars an acre, probably $1000 an acre.

The value is governed by other circumstances than the money value—the market value is governed by other circumstances than the real substantial value of the land. At that time, when **[414]** I examined these lands, the value of oil land was not well understood and it would have seemed extravagant for one to place a value of $1000 an acre on such land, and yet it was amply worth it because it was sure to produce oil of a value equal to that on an average within two miles of the main anticline through these hills.

I did not place a value of $1000 an acre on that land in my report to Mr. Towne and Mr. Madden. I made no estimate of its value at that time. My estimate of $1000 an acre is based partially upon my subsequent experience in the oil field and particularly upon my experience in the Sunset field.

My experience in the Sunset field began I think in 1893 and continued until now. I am not interested in any oil property in the Sunset field at this time, but have been making an effort to get an interest in some. I have been negotiating with the owner of the property lying east of known ground in the Sunset field—land called the Bronco and some land adjament

to it. I think it is on an even numbered section.

At the time I was in this territory in the vicinity of McKittrick in 1887, I had a relatively small amount of the knowledge I subsequently acquired in the Sunset field. I am not sure that there was development spoken of in the Sunset field in 1887. There were seepages and asphaltum deposits known there. Attention was chiefly directed to the production of asphaltum at that time and I think that inducements were offered to the railroad to build into McKittrick for the purpose of developing asphaltum, and the general opinion of people who hadn't been there was that the chief value of that territory was for the value of the asphaltum. I talked with people there who were enthusiastic about oil at that time in the broken up land lying a little to the south and west of McKittrick. **[415]**

In 1887 there was some development for oil about a mile and a half southwest of McKittrick. It was a well something like 500 feet deep, regularly drilled well, with two lines of casing in it and with oil showing in the well between the casings near the surface so that you could put a stick down and bring it up dripping with oil. No oil was produced in marketable quantities at that time. I think it was then developed sufficiently to be marketed if there had been any means of sending it to market.

I think there was some oil being marketed from McKittrick in 1893. Asphaltum was being refined and oil extracted from it. The attempt to refine asphaltum began much earlier than the time I speak of.

The Buena Vista refinery had been abandoned but another company took the matter up—I think it was the Standard Asphalt Company—and were refining asphalt, getting oil from it by stilling it and refining the asphalt into a compact, pure asphalt for shipment. That was after the railroad was built. The Buena Vista Company did not prove a success on account of the lack of transportation and was abandoned maybe ten years before that time. The Standard Asphalt Company did not begin to refine asphalt until after the railroad came to McKittrick, about 1890 or 1891. It continued for some years.

On my trip in 1887 I was in the vicinity of McKittrick two days. I was at several points. The trip took me five days. I did not examine any other territory than the Elk Hills. On one of the trips into the Elk Hills I found some brea. It was asphalt plus sand and sandstone. That was found south and west of 32, 30-24. It was to the north and east of a valley lying south of the Elk Hills and in the Elk Hills. There was brea in section 32, 30-24. There was the seepage and brea besides. I cannot say that that was all I saw on that trip. That is all I recollect now. I have merely the memory of seeing it here and there.

I reported to Mr. Towne generally on the asphaltum **[416]** situation. I reported on the asphaltum and brea indications I had found and stated that it was plainly an oil formation and that the country there indicated that it overlaid oil.

While the main purpose of my visit was to examine the extent and character of the asphalt deposits, I

went to see what there was of value and of interest to be reported on.

I reported to Mr. Towne that the brea I found at McKittrick was of excellent quality and abundant. I did not report to him that what I found in the Elk Hills was of value for commercial purposes in quantities.

Mr. Towne was interested in what I said and asked many questions concerning the possibilities of asphaltum development. That was with reference to the construction of the railroad in there. He appeared to be largely interested in what I said about the hills there being oil land. I would say that while a large part and all of our conversation was concerning asphaltum, as soon as I mentioned the fact that I believed and felt fully confident that the hills were oil lands, he took fresh interest in the matter, and I think he sent for Col. Crocker, or by accident Col. Crocker came in at that time. I am not sure which. In that statement, I specified the country now known as the Elk Hills as being valuable for oil.

I think I mentioned in that conversation that the hills lying to the west and north of McKittrick were all broken up, and that I didn't think they were good. I think I stated something to that effect and that the hills lying east were not much disturbed. I was speaking geologically. The first thing Mr. Towne said to Mr. Crocker was that "Scupham thinks those hills south of the Miller & Lux ranch is oil land." He said something signifying that. That did not refer to the Buena Vista Hills. I hadn't extended my re-

searches through them at that time. I was thinking only of the Elk Hills. I based my calculations upon a few hours [417] in the southeast portion of the Elk Hills and afterwards I had gone to the Elk Hills from the north.

I was in there part of three days in all. On my way back, I went into the edge of the hills and looked over them a little at that time. I made no other examination before making the report.

I had some conception as to the thickness of the overlying formation in the vicinity of McKittrick. I gained this from an imperfect log of a well and from my general observations. The thickness would vary with the distance from the anticline. I didn't fix a certain number of feet in determining the thickness, I only fixed it in my mind that it would be easily reached in the vicinity of the anticline. It was all within the reach of the drillers of that day, about 1500 feet.

On the first day in the Elk Hills, I saw an escarpment or faulted rock with strata visible in it and the strata pitched in different directions. That was all the stratification I saw then. On riding towards the southeast on the second day, I observed to the right, as I passed down through the valley, indications of stratification or dip. I didn't observe it closely, except this, that I saw that it varied; it pitched in different directions and was irregular and was entirely different from the dip I saw in the Elk Hills. It was different in degree. The dip of the strata on the other

side was sharp in places, but in the Elk Hills there is a very slight dip.

My conception was that that valley was over a syncline. The dip of the strata in the Elk Hills would indicate that the valley was a syncline, but the strata dipping sharply in places and changing so quickly to the west, would leave you in doubt that it had any relationship to the syncline.

On that trip in 1887 I attempted to get cross-sections at a point about seven miles southeast of McKittrick in that valley. **[418]** I found very imperfect sections, but such as it was, I made a sketch of it and thought it over. It was over the syncline. It included the slopes we went up and the slopes I had observed on the other side. But I cancelled them out as being too broken up to count on the general stratification of that section.

From that section, I did not determine the thickness of the overlying formation in feet. I concluded that it was within a distance that could be reached by drillers, 1500 feet or less than that I thought to the oil. I think that is about the way I had it in my mind then. I thought after making a subsequent reconnoissance over there in 1893 that it was deeper, considerably deeper, but I was still sure that the formation carried oil. I thought the thickness would go over 2000 feet. It was my opinion then that it was good oil land, but that it would cost more money to get a well through it than I was at first thinking of, when I examined the ground in 1893, I think there were locations there, but I didn't know about them

exactly. I got that from talk in camp only. I didn't see any location notices. I did not see anyone at work or any rigs or well of any kind in the hills at that time. In 1893, I crossed the hills from about their centre to the shores of Buena Vista Lake; traversed along the north Elk Hills two or three miles and then crossed them back again. On that occasion I went to the oil sand in 32-30-24. I went there at that time with reference to the possibility of taking up some land. I certainly thought it was oil territory then. I had not made any examination there between 1887 and 1893.

I first went into the Sunset about 1893 or 1894. I never became interested in that country except in a tentative way two years ago. I was not engaged in any business that would have prevented me in becoming interested there. From 1899 to 1903 or 1904, I continued to reside in California, spent my time there and elsewhere and was interested chiefly in mining enterprises. In **[419]** 1892 I may possibly have been interested in oil at Chittenden near Santa Cruz. I did not during that time make any oil locations anywhere. I made locations of other mining property in California and Nevada.

I had conversations with Mr. Madden in 1887, probably in 1896 and perhaps at other times, but not in relation to the lands in the Elk Hills.

It was 17 years after I made an examination in the Elk Hills before an application was made for patent by the company. They didn't seem to take my advice very seriously.

I first talked about this case with a representative of the Government about twenty days ago. I talked with Mr. Mills. He was the first person to approach me with reference to giving testimony in this case. That was the first intimation I had that I might possibly give testimony. I never wrote letters to any representative of the Government nor received any letters from them.

Since I first talked to Mr. Mills, I talked briefly with Mr. Veatch. These conversations were quite casual and without making any particular impression upon my mind.

I judge that the formations in the Elk Hills were of the Neocene. I do not think I found formations belonging to other periods there. That is the formation which contains the oil.

I did not know at the time I first examined the land that there was any considerable body of oil anywhere in the vicinity of McKittrick. None had been discovered then, either there or at Midway or at Sunset in 1887. There were no wells in the Kern River field at that time, but there was oil discovered all over there. The Kern River field is about fifty miles from the Elk Hills. The nearest producing well at that time was about the same distance from the Elk Hills.

I did not keep any notes of my trip to the Elk Hills. I made some little sketches of the section from that point. I do not [420] have them now. They were lost at the time of the fire.

F. OSKAR MARTIN, a witness called and sworn on behalf of the plaintiff, testified as follows:

DIRECT EXAMINATION

I am forty years of age and a mineral inspector connected with the General Land Office.

As to my training and experience, I will say that I have been engaged, both practical and theoretical, in the study of geological problems since 1894. From 1894 until 1900, I prospected and worked in the mines in Alaska, Idaho, Washington and Montana. In 1901 and 1902 I attended the George Washington University, Washington, D. C., and took a geological course there. In the summer of 1902, I took a special course in economic geology and geological mapping at Harvard University. In 1902, I passed the Civil Service examination as assistant in the Soil Survey and was appointed as such and served in the Bureau of Soils of the United States Department of Agriculture as assistant in the Soil Survey, and later as scientist, until 1905. That year I was appointed on the engineering staff of the Isthmian Canal Commission and served one year on the Panama Canal, the last six months thereof as assistant engineer in charge of the technical work of the Division of Meteorology and River Hydraulics. In 1906, I returned to the United States and until 1909 was engaged in the general engineering practice in Idaho and Montana. The early part of 1909, I took the examination for my present position to which I was appointed June first of that year and have served in that position until the present.

My preliminary education was obtained in Germany. I took the four years' scientific course in the Real Gymnasium in Saxony.

I have been engaged almost exclusively in the California oil fields since December, 1910. I have spent approximately three- **[421]** quarters of my time in Kern County and about one-quarter in the Coalinga District and the territory to the north thereof.

I am acquainted with the lands involved in this suit and have made several examinations of what is termed the Elk Hills from December, 1910, until February, 1912. Prior to January, 1912, I had located a few of the corners in which I was particularly interested, and during my examination in January and February of that year, I located all the section corners in the territory mentioned and nearly all the quarter corners.

I have caused to be prepared under my supervision a map of township 30-23 and adjoining lands. The map was prepared in the office of the Second Field Division of the General Land Office in San Francisco, the actual drafting being done by Mr. Kingsbury, my associate. While the greater part of the data was furnished by me, it having been derived from former field examinations made by me, some of the data was taken from Mr. Kingsbury's field examinations—that is, with reference to the townships outside of 30-23. The data pertaining to townships 30-23 and 30-24 was derived by joint examinations which Mr. Kingsbury and I made during January and February, 1912. The

data pertaining to the other townships was derived from examinations made before January, 1912, and some of it, especially referring to township 30-22, was also gained in January and February of this year and also from examinations made previously.

In explaining this map in detail, I will say that the township and section lines are taken from the official township plats on file in the United States Surveyor-General's office at San Francisco. The structure lines, as they relate to townships 30-23 and 30-24, have been put on from our personal examinations in January and February, 1912.

The structure lines in the other townships were taken from maps enclosed in Bulletin 406 of the U. S. Geological Survey [422] and have been checked by me in previous examinations and found to be correct. The full red circles on the map denote wells in which discovery of oil has been made. The open red circles denote incomplete wells—either drilling or idle. The checked red lines, the red hatched lines, in the sections of township 30-23 are lands involved in this suit. The red blotches mark oil or gas seepages. Of the base colors, the buff represents the area included in the McKittrick formation, and the green color represents the area of the formations below the McKittrick. The large letters denote the names of the different areas in the field, such as "Elk Hills", "Buena Vista Hills", "McKittrick Hills", and "Temblor Range". The black sinuous lines represent anticlines; and where those black lines are broken, they represent doubtful anticlines. The

small marks with figures attached thereto mark the dips and the amount of the dips.

The map has been thoroughly checked by me in the field and I am familiar with the conditions. This map represents the condition in the field as it existed in January and February, 1912. It has been checked from the field work and is correct.

Thereupon the map referred to was offered in evidence and marked Plaintiff's Exhibit "O".

The witness, continuing, testified as follows:

As to the appearance of the Elk Hills from the surrounding country, the general contour, elevation and typical characteristics, I will say that they may be termed an anticlinorum, meaning thereby an anticlinal ridge with a major anticline and smaller wrinkles, folds, running parallel or nearly parallel to the main ridge. The elevation of the Elk Hills runs from 350 feet or thereabouts to somewhat over 1500 feet at the highest point going southward and to 1000 feet on the lowest point of the southern slope. The hills being of a comparatively recent geological age, their topography bears a close resemblance to the geological structure. **[423]** The dips on either side of the main ridge are low and gentle, giving it rather a broad summit and a more or less dome-like appearance.

The hills cover a territory about 18 miles long and about 6 miles wide.

Before we examined the Elk Hills, we had been to the oil seeps at McKittrick. I do not know to my personal knowledge that there had been any discovery of oil by drilling in the Elk Hills before my first ex-

amination. As the result of my examination of the land in the Elk Hills and my knowledge of the surrounding country at that time, I arrived at the conclusion that the lands there were underlaid by Petroliferous deposits at a reasonable depth when I first examined the land.

Comparatively little erosion had taken place, because, as I stated before, the hills belong to a comparatively recent geological period, and for the further reason that the climate is arid. There is evidence on the surface that the conditions in the Elk Hills are practically the same as when first uplifted, and they were practically the same in 1903 as they were in 1910.

In my opinion, the most favorable indication that the Elk Hills must be considered oil lands is the structure of the territory being of an anticlinal character. It is a well known fact that along the summits of anticlines, petroleum tends to accumulate and that the anticlinal summits are the most favorable spots for petroleum to accumulate.

I found an oil seepage in the northwest quarter of section 32, township 30 south, range 24, which confirmed my opinion which I had formerly arrived at. That gas seepage is situated near a place where the anticline has been somewhat deflected, giving the hydro-carbons a chance to exude to the surface. The existence of that seepage was plain evidence to me that the lands must be underlaid by petroliferous deposits. Further, having seen **[424]** and examined the oil exudations to the west, near the town of Mc-

Kittrick, I found that the formation underlying said oil seepages near McKittrick extended easterly to the Elk Hills, and that no break being visible between the formation at McKittrick going easterly to the Elk Hills was evidence to me that the formation must be the same,—that is, that the formations overlying the oil sands at McKittrick and the formations overlying the oil sands at the Elk Hills are the same.

In my examinations extending over the last 18 months or so, I have observed seepages in the Buena Vista Hills as denoted on the map. These seepages are in sections 10 and 11, township 32, range 24. The formation of the Buena Vista Hills and the Elk Hills are the same.

I have seen the seepages as denoted on this map in township 30-22 extending through sections 18, 19, 20, 29 and 28 down to the southeast corner of section 34 in the same township. After taking into consideration the development of seepages known in 1904 as shown by Barlow & Hill's maps, introduced in evidence as government's exhibit "I", and after taking into consideration the geological structure of the region, I would have advised any company employing me to hold those lands in the Elk Hills for their mineral value. I do not believe that any competent oil geologist would, in 1904 at that stage of development, have been justified in advising his employer to dispose of the lands involved in this suit for their agricultural value alone, and I certainly would have advised my employer, who was not the owner of the

land in 1904, to acquire it at a price in excess of their value for agricultural purposes.

I was engaged in classifying soils and making soil surveys in North Carolina and Virginia while employed in the Bureau of soils of the United States Department of Agriculture, and I also made a soil survey in Idaho of the overflowed lands of the St. Joe **[425]** River for the Government in re United States vs. The Washington Water Power Company. Besides the soil survey, I have had charge of the mechanical laboratory of the Bureau of Soils in Washington, D. C. in making physical analyses of soils for approximately 3 years and made over 5000 soil analyses from all parts of the United States and its dependencies.

I have examined the soils of the lands involved in this suit. They are residual ones and may be classed in one type, terming it gravelly sand. They are very coarse, and of course on that account their drainage would be excellent; but, for the same reason, on account of their physical structure, they are not capable of retaining sufficient soil moisture to induce plant growth. Taken in connection with the slight rainfall existing in this territory, it is apparent to me that no agricultural crops can be raised on these lands.

I saw evidences on the west half of 16-30-23 of cultivation. I found that about 10 acres of the land had been ploughed or scratched over and found a stack of barley. The crop had not been a plentiful one and had not matured.

I have prepared a summary from data copied from the official reports of the United States Weather Bureau from their station at Bakersfield which gives the temperatures and precipitations for each year from 1906 to 1910, which is as follows: **[426]**

CLIMATOLOGICAL DATA—BAKERSFIELD

	Temperature					Rainfall				
	Annual Mean	Highest	Date	Lowest	Date	Total for Year	Greatest Monthly	Month	Least Monthly	Month
1906	63.8	113	July 24	26	Jan. 1*	7.65	1.70	March	0	X
1907	63.9	110	July 18	21	Mar.13	4.44	1.23	Jan.	0	X
1908	63.2	118	July 28	23	Dec 18	3.69	1.15	Sept.	0	X
1909	68.0	108	July 20	30	Dec. 31	9.29	2.26	Nov.	0	X
1910	67.4	110	May 31*	30	Jan. 4*	5.31	1.37	Nov.	0	X

* Also on other dates.
X Several months.

Monthly and Annual Mean Temperatures and Rainfall for 1910 with Departures from the Normal.

	Jan.	Feb.	Mar.	April	May	June	July
Temperature	47.4	50.8	62.8	69.0	74.6	78.4	86.6
Departure	–0.7	–1.6	*4.9	*4.3	*1.7	–3.5	–2.0
Rainfall	1.15	0.22	1.20	0	0	0	0
Departure	*0.04	–0.29	*0.27	–0.22	–0.18	–0.05	–0.02

	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
Temperature	84.0	77.0	69.7	60.6	48.4	67.4
Departure	–0.7	*1.2	*3.7	*4.7	*0.2	*1.0
Rainfall	0	0	0.83	1.37	0.54	5.31
Departure	–0.01	–0.13	*0.36	*0.99	–0.26	*0.50

[427]

I would say from the evidence existing in 1904 that I knew that there was petroleum or natural gas in the Elk Hills. I have had experience in quartz mining. A man does not know that he has a paying mine when he finds a gold-bearing ledge on the surface. I would say that the chances to develop oil in the Elk Hills are greater than the chances to develop a paying gold or silver mine from the outcrop usually existing on quartz property.

From the evidence existing in 1904, an ordinarily prudent man would have been justified in the expenditure of money in the Elk Hills with a reasonable expectation of ultimately developing a paying oil property.

CROSS-EXAMINATION OF F. OSKAR MARTIN.

From the indications I saw in 1910 and 1911, I would say that the chances to get oil in the Elk Hills in 1904 would be considerably greater than the chances to develop a paying gold mine or silver mine from the ordinary evidences of outcrops connected with gold and silver. In estimating the relative chances, I cannot state it in percentages.

My experience as to the actual prospecting and development of oil is what I have learned during my work in the oil fields. I have not been engaged in oil development myself; have never drilled any wells or been engaged in the practical drilling of wells. I consider myself an oil expert along geological lines from my studies. I have never had anything to do

with the sinking or operation of an oil well that was productice. An oil geologist determines the places where practical men should work and I deem myself qualified to determine such places. My determinations have come out pretty well in certain instances. I have not determined such places for the practical man, but practical men have worked at places I have pointed out in con- **[428]** fidential reports to the Government and found oil within twenty feet of where I predicted it. I am prevented by the Government regulations from advising practical men where to look for oil and have not advised them for that reason. I did not conclude that 100% of my predictions in the oil fields would come true; to err is human. My errors should not be at all common. As far as California is concerned, I would put myself on an equality with the average geologist who is familiar with the oil conditions. I say this on my experience in the oil fields since December, 1910.

I was not making examinations of the California oil fields in 1910 for the purposes of this litigation. I did not know anything about the litigation at that time.

My time was devoted to the oil fields in Kern County, to the portion extending from Lost Hills to Maricopa—the greater portion to the Buena Vista Hills and the Elk Hills.

The only two wells that I know of in the Elk Hills that have produced oil are the wells on 26-30-23 and 30-30-24. I do not know how much oil the well on 26-30-23 has produced. It has produced some oil.

The well on 26 did not contribute very largely to my knowledge of the conditions, not any more than the other wells, but as much as the well on section 30. I know from hearsay that those wells were not in existence in 1903 and 1904. I have seen the logs of those wells.

On account of the oil seeps existing to the west of the lands involved in this suit and on account of the favorable structural conditions of the Elk Hills, it was clear to me from the conditions existing in 1904 that the chances of finding oil in the Elk Hills were much more favorable than the chances of finding gold in quartz prospects, judging by the outcrops, because the conditions are so dissimilar between the accumulations of oil and the appearance of valuable minerals. The conditions favor oil.

The experience I had in determing whether the condi- [429] tions favored the discovery of oil in the Elk Hills was in the Lost Hills, Bellridge and the eastern extremity of the Buena Vista Hills where oil was discovered. Oil has been produced in paying quantities in Bellridge and the Lost Hills, and I think it will be on the Eastern extension of the Buena Vista Hills. They have not gone deep enough there. All indications bear out my predictions. In these instances I desire to be understood as having surely predicted the discovery of oil. I made a thorough examination of the territories mentioned and recommended their withdrawal. My recommendation was passed upon by the Classification Board of the United States Geological Survey and the lands were there-

after withdrawn by the President, and my prediction that the lands were petroliferous in character has come true. I would not say that I could always, or even 50% cent of the time, predict where oil would be found in paying quantities. I could not give any precentage because I would not predict that oil could be found in paying quantities unless under the most favorable circumstances.

I would not say that the discovery of oil is in the nature of a gamble. I would call it a speculation more than a gamble. A man that speculates most usually has some reason for speculating, while gambling is just taking a chance whether the man knows anything about it or not. Looking for oil in paying quantities is a speculation, but it is not a speculation to look for it in any quantities in new territory—absolutely not in certain territories.

If I had been on the ground in 1903 or 1904, I could have pointed to 30-23 in the Elk Hills and said: "I know there is oil down there," without any question of being correct. I would have said that the oil could be found within three or four thousand feet because of the depth of the wells then existing in the McKittrick field. The fact that the oil would be deeper in the Elk Hills was due to the fact that less erosion had taken place **[430]** and the overlying strata was thicker than in the McKittrick field.

In 1904, as nearly as I recollect, the wells in the McKittrick field were from six to eleven hundred feet, or maybe deeper.

The fact that I had examined logs of wells four

thousand feet deep did not influence me in reaching the conclusion that oil would be found between three and four thousand feet deep because when I first went into the Elk Hills, I didn't know the depth of the wells there. I had heard all kinds of rumors about the well in section 26 and very likely I had heard its depth.

No one told me to place myself exactly in the position of a man in 1904 when I examined the Elk Hills, and it did not occur to me to do that. As a man interested in the geology of the country and in ascertaining its character, I was in a state of mind in which I was ready to consider any evidence that bore upon the character of the Elk Hills and considered anything I observed or anything I heard and thought reliable, and the conclusion I reached at that time was based upon knowledge obtained in 1910.

Prior to going into the Elk Hills, I believe I had read Bulletin 406 by Ralph Arnold and Harry Johnson. I read all the geological publications with interest and care, if they pertain to any district in which I have to make an examination, and believe that I read what was printed in that Bulletin about the Elk Hills at that time or prior to the time I went into the field. I didn't read the whole of the Bulletin before I went into the field, but the greater part thereof and I think that part pertaining to the Elk Hills. I think I had a copy of the Bulletin with me and examined the country in connection with the maps accompanying the Bul-

letin. We devoted the greater part of our time during that period in December to section 24, 30-23 for the purpose of determining whether its chief value was for the oil or for Fullers Earth deposits. I came to the conclusion that it was **[431]** chiefly valuable for oil and so reported since that time.

Counsel for the defendant at this time asked for the production of the report made by the witness in connection with section 24, 30-23, and counsel for the Government, Mr. Mills, replied: "The reports made by the witness, or any person employed by the General Land Office, are of a confidential nature and transmitted to his immediate superiors; and I suppose that a subpoena *duces tecum* upon the proper officer of that Department will produce them if they consider it a matter of public policy to let them out.

"I want to say that I would have no hesitancy whatever, if the report were in my possession and not in contravention of the rules, to produce it on your request; but the reports, if any have been made, as the witness suggests, were made to his superior in a different Department than that I now represent, and I have no control over the report whatever. However, I cannot determine the public policy of any Department. If the report is to be released, I think on proper notice to the appropriate officials, the report can be obtained,—that is a matter for them to determine."

The witness, continuing, testified as follows:

I suppose I read that portion of Bulletin #406 contained on page 210 which reads as follows: "Assuming the thickness of the McKittrick formation to be about the same in the Hills as it is in the Midway and McKittrick district, that is, between fifteen hunred and two thousand feet, it seems probable that at the axis of the Elk Hills anticline, the oil bearing zone is from nine hundred to fourteen hundred feet below the surface"—if that is contained in the Bulletin.

As I have said, to err is human and I consider that statement a slip of Mr. Arnold's because there seems to be some [432] kind of a contradiction there if you consider his blue line on the map which he puts as a part of the 5000-foot limit. If the statement in the Bulletin was not a slip, the blue line should have been extended considerably further north when the dip of the formation is taken into consideration. Mr. Arnold's assumption does not come out. The actual tests in the field have shown his statement that oil should be found between nine and fourteen hundred feet, to be wrong. The 5000-foot limit indicated by the blue line is practically correct.

I consider Mr. Arnold a very competent geologist I found that Bulletin #406 appears to be unreliable so far as the Lost Hills are concerned. Maybe I didn't assume the same things that Mr. Arnold assumed. We didn't each have to make assumptions to start with; it depends a good deal on the time that certain assumptions are made. Developments in the oil field are going on continuously, and the man that

works in the field now has more data to go on than Mr. Arnold had.

There had not been, as far as I know, any oil found in the Elk Hills at the time I was there but developments had gone on in the McKittrick field, and so far as the relation between the oil fields as a whole were concerned, I certainly was in a better position than Mr. Arnold was when he went in there. Mr. Arnold's slip refers specifically to the Elk Hills in that peculiar instance and I was not in a better position than he was when I first went into the Elk Hills and considered them alone. Later developments confirmed my views.

I first went into the Elk Hills in December, 1910, the first part of the month. While I was there, I stayed at the camp of the Associated Oil Company in section 24. I went there the first day and remained until the next afternoon. I then went to Taft where I examined oil properties in that vicinity. I was there less than a week and then went to Maricopa for a few days [433] and then went into Red Rock Canyon north of Mojave and west of Cinco where I remained two weeks maybe. After that I went back to Maricopa, McKittrick or Taft. While there, I examined some oil properties, after which I went to San Francisco.

While I was in the Associated Oil Company's camp, I met one or two watchmen and had some conversation with them with reference to that section and with reference to operations there. I asked them a good many questions and got no satisfaction because

they were instructed by their superiors not to give out any information, so they told me. That is a general rule through oil fields. I got no information from them.

The next time I returned to the Elk Hills was sometime in May, 1911. I may have been there prior to that time. I travelled over the Elk Hills at that time from south to north and may have stayed on section 26 for lunch. I stayed at the Hill Crest property in 28-30-23 over night on one occasion, but don't know whether it was that time or not. I was over the Elk Hills at various times in 1911.

I made examinations of the territory at McKittrick in December, 1910, and have been over the McKittrick fields several times since then. I don't know just how often. I made an examination of the McKittrick fields a day or two before I went into the Elk Hills the first time. I discussed the McKittrick fields with several men on the oil wells, the drillers, and made inquiry as to the depth of the wells.

Q. By Mr. Lewers—Mr. Martin, did I understand that you returned from San Francisco to the vicinity of the Elk Hills about the month of May, 1911? Is that correct?

A. It may have been the latter part of April.

Q. Well, it was about that time?

A. Yes sir.

Q. Is that correct? [434]

A. Yes sir.

Q. And prior to that time, you had been in the Elk Hills not to exceed two days in all?

A. I believe that is right.

Q. And possibly not two entire days?

A. Well, we were two different days in succession in the Elk Hills.

Q. That is, portions of two different days?

A. Yes sir.

Q. After you returned from San Francisco in April or the first part of May, to what part of the field did you go first?

A. I cannot state now the exact date nor the exact places in the Elk Hills which I visited during any part of 1911 without referring to my note-book covering that time.

Q. Haven't you any recollection at this time in a general way where you went?

A. I do remember that I was on Section 30, Township 30 South, Range 24 East, sometime during 1911. I remember that I have been over 26 and have been on Section 26 during said year several times, and that I crossed the Elk Hills into the central and southerly direction and easterly and westerly, several times during said year.

Q. In what other portion were you during that period after you returned in April or May, 1911? Were you at Sunset?

A. In what portion of the Elk Hills?

Q. No; of that country.

A. I have been all over the field,—Sunset, Buena Vista Hills, McKittrick, Cariso Plains,—in 1911.

Q. After you returned in April or first part of May, 1911, how long did you remain in that country?

A. I don't recollect exactly. Several weeks.

Q. And then where did you go? [435]

A. As I said before, I don't remember the exact places that I went over during said year unless I refer to my note-book.

Q. You remember whether you returned to San Francisco or not during 1911?

A. Oh, I have been in San Francisco at least twelve times during 1911.

Q. Then you did not remain continuously in the oil district?

A. No, I did not.

Q. How much time were you in the oil district altogether in 1911?

A. I believe the only other work I have done outside of the oil fields in 1911 was two trips to Goldfield, Nevada, another trip to Coaldale, Nevada, and one trip to the vicinity of Johannesburg, California.

Q. I am not interested in places that you went, but I want to know how much time in all did you spend in the oil district after you returned there in April or May, 1911?

A. I would say that I was in the oil fields themselves about three-quarters of the time.

Q. Three-quarters of the remainder of the year?

A. Yes sir; not counting the time spent in San Francisco, about three-quarters of the year.

Q. What portion of that time was spent in the Elk Hills?

A. In the Elk Hills themselves perhaps, during said time, two weeks.

Q. Then most of your observations were carried on in other territory besides the Elk Hills?

A. In the territory in the vicinity of Elk Hills principally.

Q. A portion of that time you were over in the vicinity of the Lost Hills, were you not? **[436]**

A. Yes sir; I was there in April.

Q. When was it that you first went to what you call the gas blow-out in Section 32, Township 30-24?

A. In January, 1912.

Q. Now, when was it that you formed your conclusion first that you knew that there was oil underlying the Elk Hills?

A. After I had been there the first time, in December, 1910.

Q. How long after?

A. Right thereafter; shortly thereafter.

Q. Before you returned to San Francisco?

A. Yes sir.

Q. Did you form that conclusion while you were in the Elk Hills on that first trip?

A. Yes; from the observations made at that time and what I had learned before going in there.

Q. What you had learned and what you had read before going in there?

A. What I had read had something to do with it; yes.

Q. When you were in there on that first occasion, you saw no oil sands or gas blow-outs, did you?

A. Not in the Elk Hills; no.

Q. And did you discover any anticline on that occasion?

A. Yes; the anticline structure is plainly visible.

Q. Then, so far as your own observation went, at the time you formed this conclusion, you had seen nothing in the Elk Hills except evidences of an anticline? Is that correct?

A. As far as the Elk Hills are concerned, yes; the anticlinal structure was the principal feature.

Q. Is an anticlinal structure to your mind, or was it then to your mind, a sure indication of the presence of oil?

A. Yes, if it lies in the vicinity of developed oil fields it is a most favorable place for the accumulation of petroleum. [437]

Q. Then you took into consideration the fact that this laid in the vicinity of a developed oil field, did you?

A. I did.

Q. Then, you didn't judge that from the standpoint of a man who went in there in 1903 or 1904, long prior to the development of any oil territory, did you?

A. I don't think that I was thinking about 1904 at that time. I had no occasion to think of it.

Q. Then why did you testify on your direct examination that a man in 1903 or 1904 would have known that that contained oil?

A. Because the anticlinal structure was there at that time and the oil seeps existed at that time.

Q. You didn't see them, did you?

A. Those at McKittrick I am referring to, or the vicinity of McKittrick.

Q. Then you were drawing your conclusion at that time on the basis of what was developed or shown at McKittrick, were you not?

A. Partly; along with the anticlinal structure of the hills.

Q. You have seen many anticlines that were not oil formations, haven't you, in the course of your life?

A. Yes, but not in the vicinity of oil fields.

Q. Did you at that time know what development there had been at McKittrick in 1903 and 1904?

A. Not of my own personal knowledge.

Q. You didn't know at all?

A. No.

Mr. Mills—The question is objected to because the witness has testified on government's Exhibit I showing the state of the development in 1904.

Q. By Mr. Lewers—Did you at that time have in your [438] possession a copy of government's Exhibit I?

A. No.

Q. It was not in existence, was it?

A. No.

Q. Then, whatever conclusion you reached in December, 1910, had no relation to government's Exhibit I?

A. No.

Q. Did you in December, 1910, know anything about what development there had been at McKit-

trick or in the vicinity of McKittrick in 1903 and 1904?

A. None, except as I gained it from reading reports which mentioned the years in which the vicinity of McKittrick was developed.

Q. Which report did you read that mentioned that?

A. I think there is something in the 406 Bulletin of the United States Geological Survey.

Q. You think there is?

A. My recollection is that there is.

Q. That is the report to which you referred as having read before you went in there in December, 1910, with reference to the development of McKittrick?

A. Yes, sir.

Q. Was there any other?

A. No; not that I recollect now.

Q. And you are certain that bulletin No. 406 says anything at all about development that existed at McKittrick and its vicinity in 1903 and 1904?

A. I think it gives a history of the early oil development.

Q. But you are not sure, are you?

A. Not absolutely sure.

Q. Now, isn't it a fact that whatever conclusions you reached in December, 1910, or later on with reference to the Elk [439] Hills, were based upon everything which you had heard that you regarded as worthy of consideration, and upon all of the things

which you observed, not only there, but around McKittrick and in the other portions of the oil fields?

A. I cannot state exactly the condition of my mind in various parts of the year 1911. I cannot disassociate things which I may have learned in one part of the year with several things which I may have learned later.

Q. Did you ever make any effort to disassociate any fact that you had in your mind from other facts in order to reach conclusions during the entire time that you were in that territory?

A. Well, during the entire time of 1911, I have considered the Elk Hills as being oil in character.

Q. That is not the question. Are you prepared to state now that at any time in 1910 or 1911 you deliberately endeavored in your own mind to reach a conclusion as to the character of that country in the Elk Hills, during which effort you eliminated from your consideration facts or reports which you had received concerning matters discovered after 1904? Do you understand the question?

Mr. Mills—I don't.

A. I don't know that I did. I would have to refer to reports made at different times in the said year, and they would then state just exactly what I thought at that time. Now, I am not prepared to state that I did.

Q. By Mr. Lewers—You made your reports from time to time on the basis of what you learned up to that time?

A. Yes; up to the particular time that I made my reports.

Q. And in doing that you took into consideration everything you had learned?

A. Everything I had learned previously.

Q. Then you never were in the position where you could say **[440]** that your mind was in exactly the same condition that it would have been had you gone in there in 1903, under the conditions then existing?

A. Yes. I think under the conditions existing in 1903 I would have formed the same opinion which I have formed since.

Q. You would have formed the same opinion in 1903 that you did in December, 1910? Is that correct?

A. Yes.

Q. And at that time you would have formed the opinion that there was oil in that territory somewhere between three and four thousand feet beneath the surface?

A. At about that depth; yes.

Q. Now, in December, 1910, you had been in the Elk Hills a portion of two days; had seen nothing but some indications of an anticline. Were you able with merely those indications in the Elk Hills to determine whether that oil was one thousand or twenty thousand feet beneath the surface?

Mr. Mills—The question is objected to because the assertion in the question is not according to the facts. He did not limit his observations to the anticline.

A. I testified that the oil near McKittrick was found at a depth between six and eleven hundred feet, and I concluded after an examination of the Elk Hills that the strata under the Elk Hills overlying the oil sands were considerably thicker and, therefore, put my estimation as stated of the depth.

Q. By Mr. Lewers—Were there any wells in McKittrick in 1904 eleven hundred feet deep?

A. I don't know.

Q. Then you don't know now what the conditions at McKittrick were so far as the discovery of wells and the depth was concerned in 1904, do you?

A. Except what I have heard. **[441]**

Q. Did you hear that there was any well in McKittrick eleven hundred feet deep in 1904?

A. It seems to me that I have heard that statement.

Q. Had you heard that in December, 1910?

A. I don't recollect. I may have heard that while in the McKittrick field at that time.

Q. Where is this well that is eleven hundred feet deep?

A. I don't recollect.

Q. Did you see it?

A. I don't recollect that.

Q. Did you have a log of that well?

A. No.

Q. Did you know through which formation it passed?

A. Not having seen the log, I did not.

Q. Did you know whether that well had revealed any oil or not?

A. I believe I heard in December, 1910, that wells had been sunk to eleven hundred feet and had discovered oil.

Q. What kind of oil?

A. Low gravity oil, of the same character as found in the vicinity of McKittrick.

Q. What is that character?

A. Low gravity.

Q. What gravity?

A. As near as I can recollect, it was 15 and 16 degrees.

Q. Is the oil in the vicinity of McKittrick of low gravity generally?

A. That is my impression.

Q. Do you know?

A. Yes; what I have seen there.

Q. Now, in passing upon that territory and its oil possibilities, as a scientific expert don't you think it was important to [442] ascertain what sort of oil is found at McKittrick?

A. Yes.

Q. And you did so?

A. Yes sir.

Q. And yet you cannot at this time state what it was?

A. I said that it was of low gravity.

Q. Uniform, was it?

A. No, I wouldn't say it was uniform—of the same degree of gravity all over the field.

Q. Well, what was the variation?

A. I don't recollect.

Q. Did you ever know?

A. I have heard and read of the gravities, yes.

Q. Did you make any personal investigation to ascertain?

A. No; I never determined the gravity of any oil.

Q. Did you make any investigation at McKittrick during any of the time you were in there as to what sort of wells were being sunk to the eastward toward the Elk Hills?

A. Yes; I have seen wells to the eastward from McKittrick.

Q. How deep were they—the ones you observed?

A. The Newman-Morris well was twenty-two hundred feet, as near as I can recollect.

Q. What sort of oil did they find?

A. They hadn't found any oil at that depth.

Q. How far was that from McKittrick?

A. Two miles.

Q. In what section and township?

A. 26, 30-22.

Q. You say that well at the time you observed it was twenty-two hundred feet deep?

A. Yes.

Q. And no oil in sight? [443]

A. No.

Q. Did you obtain a log of that well?

A. Yes, I have seen a log of that well.

Q. Did you observe any other wells besides this

one lying to the east of McKittrick toward the Elk Hills?

A. No.

Q. What did you determine was the overlying formation at McKittrick?

A. Sand, gravel and clays.

Q. Belonging to what period?

A. It has been termed the McKittrick period.

Q. That is purely a local name, isn't it?

A. Yes. It has been termed that by the U. S. Geological Survey.

Q. Did you determine yourself to what period that formation belonged?

A. No, I did not.

Q. Do you know what period it belonged to?

A. No; for the reason that I considered it of no importance what particular geological age any period belongs to, as long as it overlies a formation which carries oil. It doesn't matter what you call it.

Q. But you would consider the formation which carries oil of importance, wouldn't you?

A. I would, as long as it carries oil; yes.

Q. And did you determine what formation carried the oil at McKittrick?

A. No, I did not do so myself. I was not interested in the geological age, as long as it carried oil. Of course, I accepted the statements made by the United States Geological Survey.

Q. You accepted the statements made by Mr. Arnold, did you?

A. That it belonged to a certain geological age, yes. [444]

Q. Did you accept the statement made by Mr. Arnold in bulletin No. 406?

A. Yes, as far as the ages of the formations are concerned.

Q. That is, in that respect your conclusion agreed with his?

A. I just accepted his statements; I did not check them up.

Q. You reached no conclusion based on your own independent observation?

A. So far as the age of the formations is concerned, no.

Q. Did you consider yourself qualified to reach a conclusion as to what period the oil-bearing formation belonged to?

A. If I had devoted sufficient time to it, I think I could have determined it.

Q. But you did not attempt to do so?

A. No.

Q. Did you not regard that as having some bearing upon the determination of whether or not the Elk Hills was oil territory?

A. No; I did not consider the age of any formation of any importance whatever in determining the oil area. As long as an oil-bearing formation exists and is overlaid by another formation which is capable of accumulating oil, that is the most important thing.

Q. Did you see any formation at McKittrick that you determined was an oil-bearing formation?

A. The oil itself—the oil exudation in the vicinity of McKittrick, I considered the best evidence.

Q. Did it occur to you that those exudations, as you call them, might have come from some considerable depth through an open stratum?

A. I did not take into consideration—Oh, they certainly came from some depth.

Q. Didn't it occur to you as important to ascertain, if possible, how deep the oil producing formation was? [445]

A. I have already stated that I learned of the depth of oil sands in the vicinity of McKittrick on my first visit there.

Q. And how deep did you learn they were?

A. From four hundred feet up, at those wells where we inquired for the depth.

Q. And what determination did you reach as to the thickness of the overlying formation which you call the McKittrick formation at McKittrick?

A. No particular thickness.

Q. That is, you reached no conclusion as to the thickness?

A. Except that it increased toward the west—toward the east.

Q. Didn't it occur to you that it was important to determine how thick it was when you started, in order to determine how thick it was when you got over into the Elk Hills?

A. At that particular time I did not pay so much

attention to the thickness of the overlying formation in the vicinity of McKittrick, except that they thickened toward the east.

Q. What was the dip toward the east? Did you ascertain that?

A. I don't recollect off-hand except that I checked the dip at several places as indicated on that Exhibit F.

Q. The question is, Did you ascertain what its dip was toward the Elk Hills. I am not asking what the dip was, but did you ascertain what it was?

A. Yes sir.

Q. What was it?

A. I don't recollect. I just checked the map.

Q. Did you make any note of the dip?

A. If I made any note, it would read "Checked with Arnold's map."

Q. You took Arnold's word for it? [446]

A. No; I said I checked as far as that particular territory is concerned on Mr. Arnold's work.

Q. Will you tell me just how you went about checking Mr. Arnold's determination of that dip? Tell me the whole process.

A. We went over the territory south and east of McKittrick and located some of the dips which are indicated on this map, government's Exhibit F, and measured them ourselves.

Q. How did you find them revealed? How were they revealed on the ground?

A. On exposed strata.

Q. Where?

A. As indicated on this exhibit.

Q. Will you kindly tell me where?

A. I don't recollect any of them just now except as we went over the territory in a general way.

Q. Isn't it a fact that you are unable to tell me what you did, without referring to that map?

A. Oh, no.

Q. And is it not also a fact that you did not make any such determination, but that you took Mr. Arnold's conclusion?

A. No. I have never taken Mr. Arnold's conclusions solely. I have always checked them in the field before I accepted them.

Q. Now, at how many places, stating their location with reference to McKittrick, did you find any indications of strata by which you could determine the dip toward the Elk Hills?

A. I can't recollect the exact number of places.

Q. How many places did you observe in fact?

A. I can't recollect how many.

Q. Did you observe any?

A. Yes sir.

Q. And did they all show the same dip—the same angle?

A. No; they did not. **[447]**

Q. Did the dip diminish or increase as you approached the Elk Hills?

A. The dips were very variable.

Q. Will you kindly answer the question?

A. As near as I can recollect, they increased and decreased both.

Q. Did you discover any indication of synclines between McKittrick and the Elk Hills?

A. A syncline must exist since in the Elk Hills the dips are the other way.

Q. Then you did discover evidences of a syncline?

A. As near as you can discover any syncline.

Q. Were you able to determine the depth of the formation of that syncline which you call the McKittrick formation?

A. No; I am not able to determine the depth of the axis of the syncline.

Q. Is this twenty-two hundred foot well that you examined in this syncline?

A. No, I think not.

Q. Don't you know?

A. I think it is on the flank of the McKittrick anticline.

Q. That is, it is west of the syncline, is it?

A. It would be west of the syncline; yes.

Q. Now, from the time when you discovered the indications of a syncline until you got into the Elk Hills, did you see any evidences of the deep of the McKittrick formation toward the Elk Hills?

A. No. After entering the Elk Hills from the south, the dips are to the south and southwest.

Q. What assistance did that fact furnish you in determining the thickness of the McKittrick formation in the Elk Hills?

A. I stated before that the reason I thought the thickness [448] of the formation in the Elk Hills is greater than at McKittrick is on account of the fact

that less erosions have taken place in the Elk Hills than near McKittrick.

Q. Did you determine how much erosion had taken place at McKittrick?

A. No, I did not.

Q. Did you determine during what period that erosion had been going on?

A. No, I did not. The reason that more erosion has taken place in the McKittrick anticline is because the structure is more broken up and of a steeper dip, while in the Elk Hills anticline the dips are low and gentle.

Q. Then that is your reason for concluding that there was more erosion at the McKittrick side, is it?

A. Because the strata has been more fractured; yes.

Q. In your opinion, during what period of time had this erosion been going on in the Elk Hills?

A. Since they were first folded up.

Q. And during what geological period was that?

A. My opinion, during the same time that—I am not prepared to state now whether the Elk Hills fold was created later or at the same time that the McKittrick anticline was folded.

Q. Are you prepared to say whether that occurred in recent times geologically or during some earlier period, and, if so, in what period?

A. I didn't make any particular study, as I stated before, of the geological periods or of their particular age, since I was not interested in it, and our work is not along such lines.

Q. But as a scientific geologist, wouldn't it be the first thing that you would endeavor to determine?

A. If I was sent there for that purpose, yes; but such work is left to the United States Geological Survey or other [449] geologists or scientific bureaus.

Q. You know it is not of the archaean period, don't you?

A. Yes I know that.

Q. Is it Miocene or Pliocene or Eocene?

A. I think it covers all the last three periods mentioned—what do you refer to?

Q. The McKittrick formation. What you call the McKittrick formation.

A. It covers the upper Miocene, Pliocene and Pleistocene.

Q. Do you think it covers the Eocene?

A. The McKittrick?

Q. Yes sir.

A. No, I don't think so.

Q. Why do you say that?

A. Well, I have examined fossils from the formation in the Lost Hills occurring at the base of the McKittrick, and said fossils only occur in the Miocene and not in the Eocene.

Q. Did you ever find any fossils in the Elk Hills?

A. No, I did not.

Q. Did you ever hear of anything found there?

A. No, I don't think I ever heard of any.

Q. What relation do any fossils have to the Elk Hills?

A. Because the Lost Hills and the Elk Hills are of the same formation.

Q. How do you know?

A. From a general knowledge of the oil fields and the territory intervening.

Q. Have you a general knowledge of the oil fields?

A. I think so.

Q. Now, Mr. Martin, if you did not make any determination of the thickness of the overlying formation at McKittrick, of what advantage was it to you to determine the dip or to check **[450]** the dip of that formation toward the Elk Hills, in reaching a conclusion as to the depth of that formation in the Elk Hills?

A. It is always my practice to check any map made by somebody else when I am in the field, and cover the same territory.

Q. Wasn't one of the necessary and absolutely essential factors in working out the depth of the Elk Hills, the thickness of the formation where you found your dip?

A. The reasons for saying that the depth of the oil sands in the Elk Hills is between three and four thousand feet is not solely the dip along the anticline south of McKittrick, but also from the fact that the Buena Vista Hills are very similar to the Elk Hills; that the formation appears to be the same; and that oil has been found in the Buena Vista Hills at twenty-six hundred and three thousand feet.

Q. That fact aided you in determining the depth at the Elk Hills?

A. Yes sir.

Q. And that was more important to you in determining the thickness of the formation in the Elk Hills than the dip was?

A. The similarity of the formation in the Buena Vista Hills and in the Elk Hills, and the similarity of the structure of both territories had very much to do with the conclusion I arrived at the oil possibilities of the Elk Hills.

Q. Would a man in 1903 have known anything about that well in the Buena Vista Hills?

A. Not about that well, but there are some seepages in the Buena Vista Hills.

Q. That well was not sunk till 1910, was it?

A. No—when?

Q. 1910. You are referring to the Honolulu well.

A. Yes. I think the Honolulu well reached oil sand in the latter part of 1909. **[451]**

Q. That Honolulu well had considerable influence in your mind in reaching your conclusion as to the character and depth of the formation in the Elk Hills?

A. Yes; a good deal to do with it.

Q. More than any other single thing, didn't it?

A. Well, no. I wouldn't put it that way. You might say it confirmed the conclusion which I had previously arrived at.

Q. You say it confirmed the conclusion you had previously arrived at? Did you arrive at a previous conclusion concerning the depth at Elk Hills?

A. Yes, as I stated before—

Q. What was that conclusion that you arrived at previously?

A. I stated about a dozen times that I thought it was between three and four thousand feet.

Q. If the Honolulu well merely confirms your previous conclusion, will you tell me on what you based your previous conclusion that it was between three and four thousand feet deep?

A. Because I have stated several times that the formations over the Elk Hills—existing in the Elk Hills—are thicker and that less erosion has taken place, which is visible from an examination in the field.

Q. How much thicker did you determine that formation was than the McKittrick formation at McKittrick?

A. Over two thousand feet.

Q. Then you did determine how thick the formation was at McKittrick?

A. I stated several times that the formation at McKittrick was from four hundred to eleven hundred feet, as I had been told.

Q. Then you would not agree with Mr. Arnold's statement on page 210 of bulletin 406: "Assuming the thickness of the McKittrick formation to be about the same in the hills as it is in the Midway and McKittrick district, that is, between fifteen [**452**] hundred and two thousand feet, it seems probable that at the axis of the Elk Hill anti-cline the oil-bearing sand is from nine hundred to fourteen hundred feet below the surface. Is that correct?

Mr. Mills—Objected to because it has already been answered.

Mr. Lewers—Not with reference to the thickness at McKittrick. The question is directed specifically to whether you agree with Mr. Arnold's assumption that the McKittrick formation at McKittrick is between fifteen hundred and two thousand feet.

A. No; I don't agree with that for the simple reason, as I stated before, that I do not believe Mr. Arnold wanted to state that. In this connection, that may be a typographical error, as are several others in this book, and I would just as well point out another typographical error in this book which is on page 79, the fourth line from the bottom, which reads: "So far as dikes of this character in Section 27, Township 30 South, Range 23 East,—" He evidently means Range 22 East. I am not responsible for the printing of that bulletin.

Q. Now, you started out to check Mr. Arnold's conclusion. Didn't you put in your note-book any comment on the fact that his assumption of from fifteen hundred to two thousand feet of thickness at McKittrick was a typographical error?

A. I don't know that I did.

Q. Have you that note-book with you?

A. No; I have not.

Q. Have you any of your note-books with you?

A. Yes.

Q. Didn't you regard it as important to have your note-books here during your testimony?

A. I have them all here except the one referring

to December, 1910, and I thought I had that one with me, but it is not here. [453]

Q. Didn't you at any time subsequent to December, 1910, endeavor to ascertain the thickness of the overlying formation at McKittrick, for the purpose of checking Mr. Arnold's work?

A. I believe the statement which Mr. Arnold made there is a general statement, if you read it.

Mr. Lewers—I move that that be stricken out as not responsive.

Q. I wish you would pay attention to the question. (The question is read by the reporter.)

A. I don't recollect that I did, as far as McKittrick is concerned. I beg your pardon. Did you mean McKittrick or the McKittrick formation?

Q. The McKittrick formation at McKittrick.

A. I did not, as far as the McKittrick formation at McKittrick is concerned, as near as I can recollect.

Q. Didn't that great diversion between your and Mr. Arnold's conclusions strike you as of some importance?

Mr. Mills—I object to that because it has been gone over at least four or five times, as the record will show.

A. I don't know that I did. It may and it may not.

Q. By Mr. Lewers—You realized, did you not, at that time, the necessity of as close an approach to scientific accuracy as was possible?

A. I didn't know anything about this particular suit in December, 1910. I went over into the Elk

Hills to examine Section 24, 30—23, for one particular purpose, and we did so.

Q. If you went purely for the purpose of examining that with reference to fuller's-earth deposits, why was it on your way over that you checked Mr. Arnold's map as to the dip of the McKittrick formation?

A. Because the day previous we spent at McKittrick, or some time prior to our trip to Elk Hills we spent in McKittrick, [454] and, as I said before, it is my custom and the custom of any man, I think, to check on any map which he may have with him to find out whether it is correct or not.

Q. Later on you became acquainted with the fact that this present suit was contemplated, didn't you?

A. Yes sir.

Q. And you later on learned that this suit had been brought, did you not?

A. Yes sir.

Q. After you had learned that, after you went into the country to make a more careful investigation, did you not think it necessary to determine accurately as far as possible the thickness of that formation at McKittrick?

A. At that time I knew I had seen the logs of so many wells,—the logs of the Associated Oil Company and the Elk Hills included, that I paid no more attention to the work around McKittrick except to go over it again in a general way and extend my examination farther to the southeast.

Q. What were you doing in there at that time, Mr. Martin, after you had examined for fuller's-earth?

A. At what time?

Q. In your subsequent visit to the Elk Hills, what were you doing?

A. To learn the progress the Associated Oil Company was making in their wells; to complete more closely the dips—to work out more closely the structure of the Elk Hills and similar work—in order to determine how far the 5000-foot limit would go to the north, for instance, in one particular instance. I have to determine before any mineral application goes to patent whether any land is mineral or not. For instance, if an agricultural entry is made in the withdrawn area.

Q. Then one of your purposes was to determine how far [455] north the 5000-foot depth limit went, was it?

A. Yes sir.

Q. In determining that didn't it occur to you that it was important to determine the thickness of the formation at McKittrick?

A. I knew the thickness of the McKittrick formation since I had seen and studied the location of the Associated Oil Company in the Elk Hills.

Q. And how thick was it?

A. These logs have been given to me confidentially. I don't know whether I am at liberty.

Q. I want you to tell me what the determination was. Don't worry about the logs.

Mr. Mills—Are you speaking for the Associated Oil Company?

Mr. Lewers—No.

Mr. Mills—You were the other day.

A. I don't feel at liberty to give out any information that was given to me confidentially, unless I am released.

Q. By Mr. Lewers—The question was not what any log showed. What I want to know is how deep do you determine the McKittrick formation to be in the Elk Hills?

A. Since I determine that formation from the log, it amounts to the same thing.

Q. Will you kindly answer the question?

A. What is the question? (The question is read). I don't feel at liberty to answer the question.

Q. Do you refuse to answer it?

A. I would like a ruling upon it.

Q. There is no ruling to be made, unless you make it.

A. By Mr. Mills—Did you receive these reports confidentially from the Associated Oil people? [456]

A. I have.

Q. And was it understood at the time they were given to you?

A. Any information given to me by Mr. Williams, chief geologist of the Associated Oil Company, has been treated confidentially by me since I have had it.

Q. Mr. Mills—Let the record show that Mr. Williams, chief geologist of the Associated Oil Company, is in the room, the person from whom he received

the information, and if he releases him he can answer the question.

Mr. Lewers—Let the record show that I want to know the determination he reached. I don't care how he reached it.

Mr. Mills—The witness says he arrived at his determination from the logs.

Mr. Lewers—As a matter of fact, you have already put it into the record as to the depth of that well.

Mr. Mills—Not with this witness.

Mr. Lewers—No; from another witness.

Mr. Mills—We got it from one of the Associated Oil people.

Q. By Mr. Lewers—Answer the question.

A. My answer is the same; that I refuse to answer the question unless released by the Associated Oil Company, as the information was given to me as confidential and will be treated by me as such until released.

Q. Did you base the location of that red line on Exhibit O which you have introduced and prepared upon your determination as to the depth of the McKittrick formation in the Elk Hills—this brown line?

A. No; the brown line denotes what is commonly termed the Elk Hills territory.

Q. Then you don't intend that as any representation of the [457] limits of the oil territory?

A. No sir.

Q. Where do you put the limits—the 5000-foot limit on the north side of the Elk Hills—with ref-

erence to the point where it was placed by Mr. Arnold?

A. As near as I can recollect I pulled it in.

Q. How much?

A. I don't recollect now the exact distance, but I should say a half a mile, as near as I can recollect.

Q. Why did you do that?

A. I took the dips of the strata in the Elk Hills into consideration, and the depth at which oil had been found in the Elk Hills.

Q. That is, you took into consideration one factor which you now refuse to state, did you?

A. Yes; the depth of the oil sand.

Q. And did you make any report as to the outside limits of possible oil development based on your examination of the Elk Hills?

A. I made a report pertaining to one particular entry.

Q. You made that report to the government, did you?

A. Yes.

Q. And you used as a basis of the report this confidential information you had obtained from the Associated Oil Company?

A. I did.

Q. And yet you refuse to give me the conclusion which you reached as the depth of that formation in the Elk Hills?

A. Because my reports to the government are confidential and are treated as such, and plainly marked as such.

Q. And the important factor in determining this outside limit was the depth given as confidential, was it?

A. Yes; and the dips exposed on the north slope of the [458] Elk Hills.

Q. Did you determine that in 1904?

A. Not the exact depth at which the oil sands were found.

Q. Now, Mr. Martin, as an oil expert will you tell me what matters you regard as important in determining whether any particular territory you are examining is valuable for oil. I mean valuable for oil commercially.

A. The structure of the territory, I think, is most important, and its vicinity to a proven field.

Q. Let us take the structure first. What is the important thing about the structure?

A. Well, being a fluid, oil naturally follows the law of gravitation the same as water, and oil and water existing in a strata, and oil being lighter than water, oil will naturally flow to the highest place it can migrate into. That is, the water would displace the oil in the syncline and force it to migrate to the anticline—the axis of the anticline and its flanks.

Q. Wouldn't it be at all important to ascertain whether there is any oil formation that produces the oil to go into that anticline?

A. Yes; I said that in my former answer.

Q. Wouldn't that be your first consideration?

A. I said that oil or evidences of oil must be somewhere.

Q. Would mere evidences of oil be sufficient to permit you to go into the secondary stage of your examination concerning the existence of the anticline?

A. As I stated before, if oil exists at all the top of the anticline or its flanks on either side are the most favorable places for petroleum to accumulate.

Q. Let us devote our attention to the first requisite. Suppose you had found a gas blow-out such as you found in [459] Section 32 in the next township. Would that be enough?

A. It would indicate to me that petroleum was in that vicinity.

Q. Now, if you were passing on a question for a man who desired to prospect the territory for the purpose of developing oil to sell in the market, and you found a gas blow-out of that kind, would you stop there and tell him that was enough evidence to sink a well on to get a well for the market?

A. If the structure was favorable I would say yes.

Q. What do you mean by a favorable structure?

A. I have stated it time and again. I mean thereby an anticlinal structure.

Q. Might it not be possible to have the most perfect anticline in the world and yet not have enough oil to be extracted at a profit?

A. I can imagine of such conditions, yes; but they are in the great minority. You may take nearly all the oil fields of the world and they have first been developed along the anticline.

Q. Do you know that from experience?

A. No, but that is a matter of fact to any one who has read anything about it.

Q. You are basing that on your conclusions that you have arrived at by—

A. The statements made by writers who knew what they were writing about.

Q. Well, assume that such available oil deposits have been found in anticlines. Can you reason back as to the commercially scientific proposition that after you have an anticline you are going to have the oil?

A. If the anticline is in the vicinity of an oil field, and an oil seepage occurs on or near the crest of said anticline, I should certainly say that the land was oil in character. [460]

Q. Would the age of the underlying formation have any influence on your opinion?

A. No; the seepage itself would be evidence enough that the oil must be there.

Q. In what sort of formation does oil occur? That is, from what sort of formation is it developed?

A. The oil is developed from diatomaceous shales or in diatomaceous shales, and migrates from there into the overlying porous strata.

Q. Wouldn't it be important to you to determine whether there was any shale which you have referred to from which the oil is developed?

A. Such shales do exist to the west of the Elk Hills in the Temblor region.

Q. Do you know whether it existed under the Elk Hills?

A. I know now.

Q. As a result of this confidential information?

A. From an examination of the field as a whole I concluded that it extended under the Elk Hills.

Q. Would the existence of the wells which you observed when you went in there in 1910, without that would you have known whether there was any oil producing shale beneath the McKittrick formation in the Elk Hills?

A. There were no wells in the Elk Hills in 1910.

Q. I know it. I am very well aware of it.

A. Then I don't understand your question.

Q. Isn't it a fact that if you went on the ground in 1904 you would have had no possible way of knowing whether there was any oil shale under the Elk Hills?

A. The seepage certainly indicates that the oil must have come in from somewhere, and since the oil is created in the shale, it must have come in from the shale underlying the Elk Hills. [**461**]

Q. That would be all the evidence you have?

A. And the shale outcroppings further to the west.

Q. Where?

A. In the Temblor Range as indicated on my last exhibit.

Q. How many miles?

A. Oh, six miles.

Q. Is there a shale outcropping six miles from any portion of Township 30-23?

A. Yes; in Section 31, Township 30-22.

Q. How is it there revealed?

A. I remember having seen a shale outcrop there near a gypsum mine. A shale dipping to the east.

Q. How much shale was there exposed? What thickness?

A. In that particular place it was a small spur, perhaps 20 or 25 feet.

Q. To what period did that shale belong?

A. The Monterey formation.

Q. How do you know?

A. It was older—it underlies the McKittrick formation.

Q. Is that your sole reason for saying it belonged to the Monterey formation?

A. Well, it has been termed the Monterey formation and is an older formation than the overlying McKittrick formation.

Q. Couldn't it be still older than the Monterey formation?

A. No, because I think it is the Monterey formation.

Q. Did you make an examination of it to determine whether it was the Monterey formation or whether it was not a still older shale?

A. No; I didn't make an examination except that that formation there is underlying the McKittrick formation.

Q. If there were any of what Mr. Arnold called Vaqueros formation it would be underlying the McKittrick? [462]

A. Yes, but the Vaqueros looks entirely different; it is easy to distinguish the two.

Q. How do you distinguish between the two?

A. Monterey is a shale and Vaqueros is a sandstone.

Q. That is your sole manner of distinguishing between the two?

A. And their relation structurally—their location structurally.

Q. You have already given that. I will ask you another question. Does shale occur in any age except the Monterey?

A. Yes; you find shale more or less in all the formations. The logs will show that.

Q. Is it not also a fact that so far as the appearance is concerned that it is a matter frequently of great difficulty to determine whether a particular shale formation belongs to one period or to another?

A. If you would just take that shale formation locked up in a room twelve by twelve, you might find it difficult; but in a field you have a whole territory to look at.

Q. Then it is very easy in the field, is it?

A. Comparatively so, yes sir.

Q. What method is employed by geologists who are familiar with their business, in determining the age of any particular kind of shale?

A. Collect fossils if they can find any.

Q. Did you endeavor to collect any fossils from this shale exposure?

A. I did not. I told you why. My line of work

is entirely different from that of the paleontologists of the United States Geological Survey.

Q. They endeavor to find fossils, do they not, for the purpose of fixing that shale in its proper period? [463]

A. They do.

Q. And that is the recognized test, is it not?

A. It is, yes. But they don't collect fossils from every exposure. After a formation has been recognized in the field, they don't go by fossils alone, but also from its appearance. Any man with experience can tell after he has worked in the field some time without looking at the fossils if they should exist, at every exposure as to which period they belong.

Q. Can you so determine?

A. A good many cases, yes.

Q. Can you in each case?

A. I should answer no to that.

Q. Could you in this particular case determine to what period this shale that you found exposed belonged?

A. From its position structurally, yes.

Q. Just from its position?

A. Structurally; yes.

Q. It might have belonged to an entirely earlier period, might it not?

A. Well, it doesn't.

Q. It might have, might it not?

Mr. Mills—He has answered already that it does not. He has asserted a fact, and now you ask him if it might not.

A. You must frame your question in such a way that it is possible to answer. It might not, after I stated that it did not.

Q. By Mr. Lewers—As a matter of fact, Mr. Martin, do you know what period that shale did belong to?

A. Yes, from its appearance and structural position I believe it belongs to the Monterey formation.

Q. And it might have been Eocene shale, might it not?

A. No. [464]

Q. Why not?

A. Because it is overlaid by the McKittrick formation, and the Eocene is below the Monterey.

Q. If it had been Eocene shale wouldn't it have been overlaid by the McKittrick formation?

A. If the Monterey and other formations had been eroded, yes.

Q. That is just what I am coming to. Do you know that they had not been eroded?

A. As near as I can recollect, no.

Q. But do you know?

Mr. Mills—He has answered the question. He has stated as near as he recollects.

A. No; I don't think they were eroded.

Q. By Mr. Lewers—Then, if it was easy to determine that, why do practical and competent geologists resort to the fossils tests?

A. They have to start in with something in coming into a new field.

Q. Let us assume now that this Monterey shale

—that it is Monterey shale. Does Monterey shale produce oil?

A. If it is overlaid by a porous formation into which the oil can migrate, yes sir.

Q. How do you know that?

A. That has been proven in the field.

Q. By you?

A. No; by numerous oil operators.

Q. Who told you that?

A. Mr. Williams.

Q. Mr. Williams told you that Monterey shale produces oil, did he? Did he, Mr. Martin?

A. That diatomaceous shale contained in the Monterey [**465**] formation produces oil. Mr. Arnold makes that statement, and various writers on the California oil fields.

Q. Is there any Monterey shale that is not diatomaceous?

A. Yes sir; there may be certain strata or certain parts of the Monterey shale which are not diatomaceous.

Q. Would that produce oil?

A. No.

Q. Then the mere discovery of Monterey shale would not be a determination that it was oil producing shale?

A. Certain parts of the Monterey shale are diatomaceous.

Q. You would always have to ascertain whether the particular formation of the shale was diatomaceous, wouldn't you?

A. Yes sir.

Q. Did you so ascertain?

A. In each instance.

Q. Where you found the shale exposed?

A. No, we did not.

Q. Let us assume that it was diatomaceous Monterey shale, oil producing. Does any other shale produce oil?

A. Any other—

Q. Any other kind of shale?

A. As far as I know in the California fields, the diatomaceous shales are the origin of the oil.

Q. What is the oil?

A. Petroleum.

Q. What is petroleum?

A. A hydrocarbon.

Q. What kind of a hydrocarbon?

A. Of no fixed chemical composition.

Q. From what does it come originally?

A. From organisms such as diatoms.

Q. Then it is animal in its origin entirely? [466]

A. That is a mooted question. In my opinion it is.

Q. Well, then, let us take all the favorable assumptions to that shale that we can,—that it is Monterey diatomaceous oil producing shale, and that your gas blow-out over in Section 32 in the next township came from the same shale. Now, as a commercial proposition, could you yet tell your client that he had a sure thing to develop oil in paying quantities? What would be your next factor?

A. No; I would not be able to state that it would be found in paying quantities. I would be able to state that it would be found there; that oil would exist below the Elk Hills.

Q. But he wants to know whether it would be in paying quantities. What is the next thing you would try to find out for him.

A. Whether it is found in paying quantities?

Q. He wants to know whether it would be.

A. I would advise him to bore.

Q. That is the only way he would be able to find out?

A. That would be the only way to find out whether it was in paying quantities or not.

Q. Now, your conclusions with reference to the Elk Hills would not stop this deposit of oil which you have referred to as being under the Elk Hills at that arbitrary line north of the Elk Hills, would it?

A. You mean that it extended further?

Q. Yes.

A. I think the line may be termed more or less arbitrary at the time it was made.

Q. That is, you think oil would extend further?

A. No, I don't think so.

Q. You think oil quits out there north of the Elk Hills?

A. No; I believe it extends, but at too great a depth to [467] be economically reached.

Q. We will come to that. How far do you think it extends?

A. Approximately as indicated by the blue line.

Q. Perhaps you don't understand the question. How far do you think it extends, disregarding the matter of depth?

A. I can't tell accurately, except my opinion is that it would extend so far until it is replaced by the water which, in my opinion, undoubtedly occupies the synclinal axis of the San Joaquin plain.

CROSS EXAMINATION OF F. OSKAR MARTIN.

Continued as follows, page 1260, Vol. 3:

I believe the oil territory extends practically as far north as the blue line shown on Government's Exhibit "F." Beyond that distance its depth is below 5,000 feet, which would make it not economically available. I have not determined how much farther beyond that line it extends. The geological evidence is that it does extend further.

I still maintain that it is very probable that the syncline is filled with water now. Also, at one time, it may have been filled with oil. It is my belief that the surface of that water is some distance north of the blue line mentioned above because, as I remember, the axis of the synclipe of the San Joaquin Valley is a good deal more than one-half further distant from the axis of the Elk Hills anticline than the 5,000 foot limit as indicated on the map.

I believe that those parts of the stratum nearer to the axis of the anticline contain oil, and those parts of the stratum nearer to the axis of the syncline con-

tain water. Consequently, since the distance from the 5000-foot limit as shown on Government's [468] Exhibit "F" is much smaller than the distance from the 5000-foot limit toward the synclinal axis, it is reasonable to suppose that that part from the Elk Hills' anticlinal axis toward the 5000-foot limit is filled with oil, while that part near the synclinal axis is filled with water.

Oil would always be at the highest place. Its position would depend on the relative amount of water and oil. The anticlinal axis would be occupied by oil.

Water passes more freely through the permeable bed of sand because it has not the viscosity which oil has. Oil would be more easily side-tracked.

If the supply of oil in the stratum underlying the San Joaquin Valley was not large and the water supply was considerable, it would not be possible for the anticline to be filled with water and not have any appreciable quantity of oil in it. The anticline would be filled with oil because there is where the oil would run to, and that would be the fact even if the source of oil was not immediately underneath the Elk Hills and the supply of oil were limited.

I consider the Elk Hills the most favorable place for the accumulation of oil since it is the highest, and oil and water naturally follow natural laws—the water seeks the lowest level while the oil is above the water. I maintain that the oil extends for a considerable distance north of the Elk Hills since the structure of the hills shows it to be of a more or less dome-like shape and the dips are slight, and, consequently,

the whole area as far as the plain to the north of the Elk Hills must be considered a part of the Elk Hills anticline or dome.

I know from the examination of the logs of the wells drilled by the Associated Oil Company that the Elk Hills contain porous strata. As shown by the logs, it extends from 30 to 24 and 26, over the whole territory between it; because the sequence of [**469**] formations in the logs are similar. I have examined five logs, one of which was the log of the Hillcrest well. There was no oil in that well because they hadn't gone deep enough.

The log of the Scottish well, which I examined, did not show any oil, but that, in my opinion, is no reason why no oil should have been found there, because it was drilled from two thousand to four thousand feet with a rotary drill, which tends to mask the formation. This has been proved by operations in the field.

The logs on Section 26, 30-23 and Section 30, 30-24, as near as I remember, and the log on Section 24, 30-23, showed gas. All of the logs showed sands.

There may be some sands which are dry and contain no oil, but they would not lie in exactly the same formation and in the same stratum as the sands containing oil. If you penetrate an oil sand in one place and find oil, you will find oil when you penetrate it in another place if it is the same oil sand, even if you penetrate it a half mile or a mile or five miles away from the point where it was first penetrated. That is my experience extending over a few months in the oil field.

I do not know what Mr. Youle meant by "tight formation." I know of some formations that are impervious to the passage of oil. A place saturated with water would be impervious to the passage of oil. I say this because I can conceive of instances where, through a great fracturing, such places may become friable. An intrusion of some foreign matter into the strata would prevent the migration of oil. A fault would prevent its migration up to a certain point—up to the faulting plane. That is not uncommon in the California oil fields and not uncommon in other oil fields that I have read of. I based the conclusion that it is not uncommon in the California oil fields upon the development and upon the map I have placed in evidence; the exhibit marked "O," which shows that [**470**] the wells have been developed fairly continuously along certain lines. I also based this conclusion upon examinations made through the state.

I know the country in the vicinity of the Elk Hills has been subject to a considerable lateral pressure and folding and elevation and subsidence at different geological periods, but not through any faulting. There is no evidence of any faulting in the lands involved in this suit except some small faults of a few feet displacement which would not, I think, be sufficient to block the passage of oil through sand formations.

No other agencies occur to me now, which would block the passage of oil through the sand formation.

The existence of oil sands can be determined with-

out drilling wells; if they did not exist there would be no seepages. From the seepage found in Section 32, T. 30-24 I came to the conclusion that oil sands underlie the Elk Hills, and on account of the structural condition of the Elk Hills, they extend over all of the Elk Hills to the west of the seepage. I do not think that seepage came from a deposit of oil entirely local in that vicinity. I think this on account of the structural conditions in the Elk Hills, their anticlinal structure, their low and gentle dips, showing no fracturing. If that seep had come from what you term a local deposit, then more fracturing would be shown in the Elk Hills because experience has taught us that local deposits are found where the formation has been greatly fractured. I refer now to the Cariso Plain where oil seeps are found and wells have been drilled right near them and no oil has been found. But that is explained in my mind because the country there has been greatly fractured, and such fracturing does not exist in the Elk Hills.

The slight fracturing is the cause for the oil seep in Section 32. It is a very slight one. The uniform dip indicated that there is no fracturing in other parts of the Elk Hills. The [471] surface in Section 32 indicates a fracture or wrinkling to a somewhat greater extent than elsewhere along the anticline through the entire Elk Hills. The anticline at that particular place takes a turn to the northwest and from that I conclude that there is a crack or fracture in it at that point. There are no sharp turns in the course of the anticlinal axis at other places. The course of the anticlinal axis is more or less sinuous.

The fact that no oil seeps are found at other places where the axis of the anticline makes a turn is not any indication that there is no oil underneath. Oil would not come up in other places where there is a bend in the axis of the anticline because the fracture in such places is not so great as in Section 32.

I could not determine how great the fracture was in Section 32 on the surface. The existence of the oil seep is an indication that the fracture does exist, but as to the thickness or greatness of the fracture, I cannot answer.

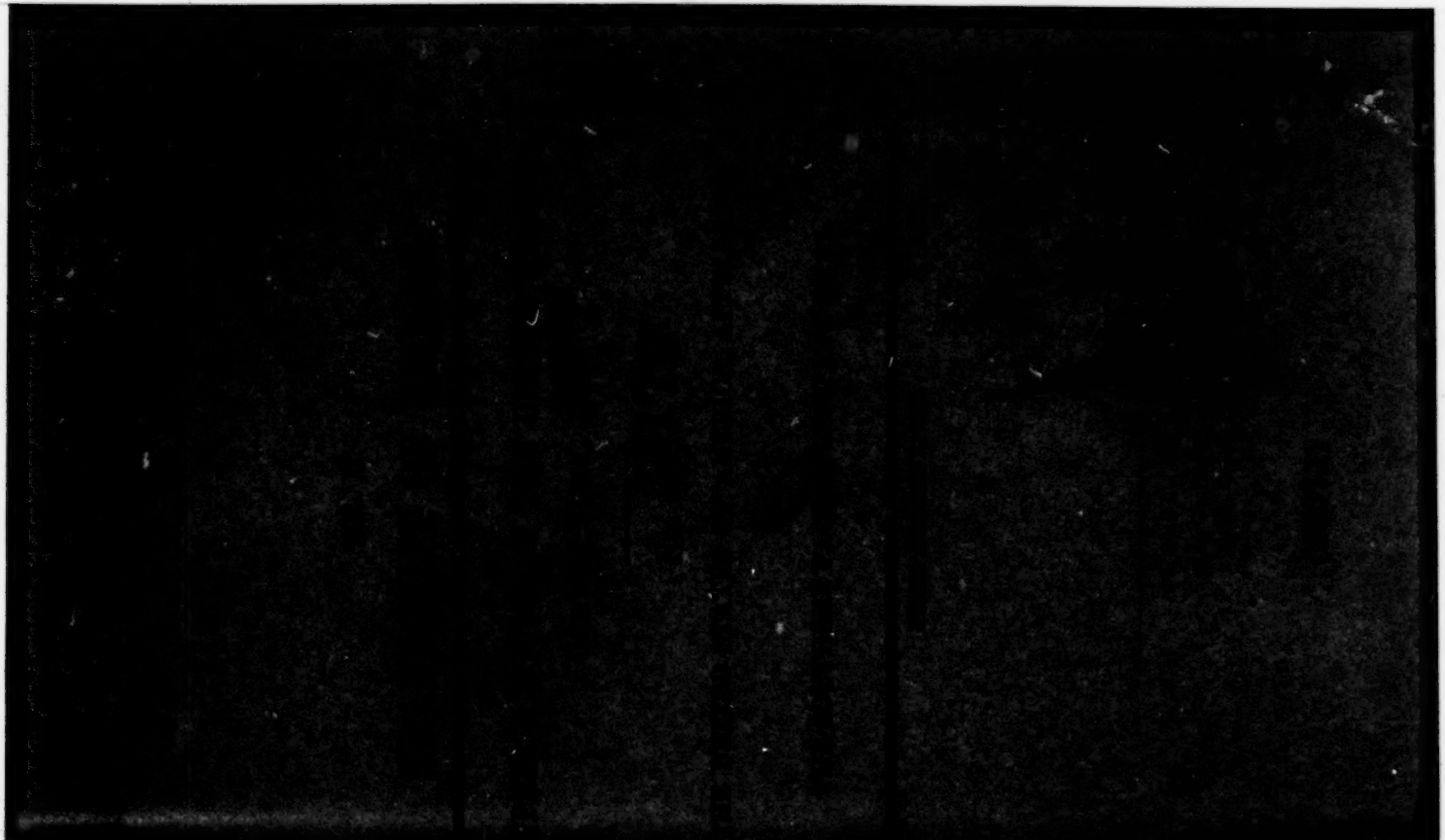
I am not speculating as to the existence of a fracture in 32; if the fracture were not there, the seepage would not be there. I would not necessarily expect to find a seepage at places where the fracture existed elsewhere; some conditions might exist whereby the oil or gas might have been prevented from ascending to the surface even in a fracture, and in this I am not referring to the absence of oil. The system of faulting might prevent the gas or oil from coming to the surface. I did not see evidences of such faulting in the Elk Hills.

The oil-producing formations referred to belong to the older or the lower part of the McKittrick formation and I believe that a very considerable period of time elapsed between the laying down of the formation which produced the oil and the deposit of the formation on top. That time might be measured by hundreds of thousands of years, and on the other hand, it took [472] hundreds of thousands of years to produce the oil, too.

The McKittrick formation is not conformable to the formation producing the oil which has been called the Monterey Formation. There is evidence there that that is a territory which, in earlier times, suffered a great deal of shifting and folding and it is possible that prior to the time of the McKittrick Formation the surface of the old formation called the Monterey formation may have revealed a very irregular formation under the Elk Hills.

It is possible that the stratum may have been upturned so that its edges were revealed. It is not possible that this earlier formation may lay horizontal with the surface because if the overlying and underlying formations have been crushed together in a fold, then the underlying formation would not be horizontal. It is generally accepted that the Monterey or Vaqueros formation created the oil or is the source of the oil. There may be a portion of that formation which is not oil-producing.

Very little oil could be obtained from the producing shale. It would be gotten in the porous formation overlying the shale. You must have a reservoir for the oil to migrate into, which must have some connection with the shale which produced the oil. The existence of a large body, more or less, of loose sand under the Elk Hills would be sufficient to warrant my advising a prospector that he could get oil in commercial quantities taking in connection the vicinity of the territory to an oil-producing and creating shale. It is not necessary that any oil creating shale immediately underlies the porous sands which will



serve as a reservoir. They may migrate for large distances into the porous sand, and, consequently, the oil creating shale may be at some distance from where the oil is later found. What you must have is a porous stratum overlaid by an impermeable stratum so that the [**473**] oil cannot exude to the surface. It must be confined.

In addition to the discovery of sand I would require the ascertainment of the further fact that the sand was in some way connected with oil shales somewhere in the vicinity. It is a mooted question at the present time as to how far oil will migrate, but that it does migrate has been abundantly proven in all the oil fields.

If I had oil-producing shales and a porous strata overlying them I would not want further facts to enable me, as a scientist, to advise an individual that he could obtain a paying well. The amount of the shale would have some bearing upon my opinion. It would be necessary to determine the amount of such shale to some extent.

The fact that the Monterey formation is possibly overturned or faulted would not cut any figure in the oil production. The Monterey shales are creating the oil and as long as they are overlaid with porous beds, it would not matter much in what condition the shales which create the oil are in so long as they touch the porous beds above. The condition of the shales themselves is of no importance. The greatest importance is the position of the overlying strata—the porous strata which contains the oil.

If I were advising a man with reference to irrigation, I would pay attention to the water supply and select him a reservoir site; but the same thing does not apply to oil. There is no relation between the two propositions. Your producing oil strata may all be twisted. So long as you have an overlying strata to receive the oil and an overlying impenetrable strata acting as a reservoir, that is all that is necessary.

Oil would not pass through hard shales except where terrestrial disturbances had made the shale friable so that it could get through. [474]

I think it is possible from an examination of the surface of the Elk Hills to determine that there is oil underneath them.

I agree with the statement made by Mr. Ralph Arnold on page 205 of Bulletin 406 that "It must be borne in mind, however, that absolute determination by work on the surface, of the occurrence or non-occurrence of oil in any one locality, is not possible. The best that can be done is to calculate the degree of probability on the basis of surface indications and structural conditions?" because, after reading the entire paragraph from which this quotation is made, I think Mr. Arnold means that the occurrence or non-occurrence of oil in paying quantities in any one locality is not possible. While it is not so stated here, I infer that to be his meaning from reading the paragraph. Without that qualification I would not agree with him altogether. I do not agree with the statement made by Mr. Arnold on page 203 of the

bulletin mentioned, which begins, "The conclusions here to be discussed as to the course that future development will take in the McKittrick-Sunset region," etc., because I know better from experience and Mr. Arnold knows so too, no doubt, now. He certainly keeps in touch with the oil fields and later developments have shown that he was, in some instances, wrong in his belief there.

I agree with Mr. Arnold's statement beginning on page 203 of the same bulletin: "The accumulation of the petroleum and the possibility of its extraction in commercial quantities depend on several prerequisite factors. Among these are the following, briefly stated:

"a. An adequate thickness of the shales forming the original source of the oil to yield commercial quantities of petroleum.

"b. A cause for the migration of the oil from its [475] source in the organic shales. This cause is believed to be supplied by the tendency of oil to migrate by diffusion through certain media, such as dry shales; it may be and doubtless is in certain instances augmented by hydrostatic pressure wherever water had come into contact with the petroleum.

"c. Associated porous beds occupying such a position relative to the source of the oil and to impervious barriers as to permit the petroleum to pass from the source into the final reservoir and there to be confined by impervious strata. Wet shale or clay and certain fine grained water impregnated sands are believed to be among the effective barriers to the migration of the oil.

"d. Occurrence of the accumulation at a depth far enough below the surface and distant enough from outcrops to preclude the escape of the lighter hydrocarbons, and still at depths which may be profitably reached by the drill."

All those factors existed in relation to the Elk Hills and I have now determined them. I know that the shale does exist but I did not measure any thicknesses and don't know them. In my opinion it is not necessary for any shales to underlie the Elk Hills, in the first place; the oil may have migrated into it, although I do think they underlie. There is a shale outcropping all along the eastern flank of the Temblor Range from which the oil under the Elk Hills may have come. It might migrate through the syncline lying between the Temblor Range and the Elk Hills if it is not filled with water. The oil would naturally go from the oil-producing shales into overlying sand beds, and the seepages themselves, in the Elk Hills, are evidences of a connection with the oil-producing sands.

I base my conclusion on the existence of seepages and the structural conditions of the Elk Hills.

I made an examination of the Lost Hills during the [476] the period I was in that country and made a report recommending the withdrawal of certain lands in their vicinity. I do not have that report with me now and have no data in my possession showing exactly what lands I recommended for withdrawal in that vicinity. That report is not released by the department to which I am attached. All my reports are of a confidential nature.

A withdrawal order was issued based on that report. Inasmuch as my report was of a confidential nature I do not feel at liberty to answer the question as to whether the withdrawal order corresponded with my recommendations. I have no objection to giving the information, but since the report is confidential I do not feel at liberty to do so, and do not feel at liberty to state what land I determined was oil land in the vicinity of the Lost Hills, because, as I understand our governmental regulations I am not permitted to do so, and refuse to do so unless the Commissioner of the General Land Office releases me and orders me to give the information.

I may state that the Lost Hills and the vicinity immediately in the vicinity are oil in character and have been proven to be such.

During the period I was in the vicinity of McKittrick from 1910 until the present time, I have made several different reports. I don't remember just how many of them. I may have made five; I may have made more. I made reports of my observations with reference to oil in the Elk Hills. I decline to answer the question as to whether my reports concerning the Elk Hills contain matters with reference to which I testified here on my direct examination, unless ordered to do so by some competent authority. It is not a fact that as a representative of the government I am willing to testify when called upon by the attorneys for the government, but claim the privilege of confidential communications when questioned as to the details and [477] reasons for reaching my conclu-

sions. I have no objections to testifying as to the contents of my reports and would do so if they were released.

I cannot tell off-hand, without reference to my report or the notes on which it is based, as to how far the commercially workable oil territory extends from the summit of the Lost Hills.

I would state that the eastern half of Section 13 in Township 26 South, Range 20 East, is oil in character, but I do not think the same is true of Section 14. From my general recollections of my report I should say that Section 1 in that Township was oil in character and I consider Section 36 in Township 25, Range 20, as oil in character.

I always did believe that the northeast flank of the Lost Hills anticline would be productive to a greater extent than the southwest flank because the same conditions appear on the Coalinga anticline. The southwest flank of the Coalinga anticline is productive for a shorter distance than the northeast flank.

In the Elk Hills the dip is practically the same on both sides, having an average of between three and four degrees.

In passing upon oil lands for the purpose of determining why, in my opinion, they ought to be withdrawn, I fixed five thousand feet as the limit of the depth. I know of a well in the Kern River field that was deeper than that, but I do not know when that well was sunk. It was subsequent to 1887.

On Exhibit "O" I indicated in solid red circles the land on which oil discoveries had been made. There

was only one in Township 30-23. That was in Section 26. I don't know exactly when that well was sunk except that the drilling had been started prior to the time I had been in the Elk Hills, prior to December 1910. I have been told that it was not started until after January, 1905, and have no reason to doubt that. [478]

Exhibit "O" does not show any other wells in the Elk Hills where oil had been discovered. On Section 30, Township 30-24, oil has been discovered and the log of one of the wells on Section 24 in 30-23 indicated the discovery of gas. Those are the only two wells in the Elk Hills in which I have seen oil. I know that the well in Section 26, 30-23 has produced some oil because it is plainly visible.

The other circles on Exhibit "O," which are not solid red, are wells which have not, so far, produced any oil. In Section 20, 30-23 there are three wells which have not produced oil. They are commonly termed the wells of the Scottish Oil Company, and I have been informed that one of them is in the vicinity of four thousand feet deep. I don't know the depth of the others. They were not being operated at the time I was in the Elk Hills the last time. They were operated during several times I was there in 1911; that is, drilling was going on. They were using a rotary drill from two thousand feet down, but had used standard drills up to two thousand feet. I have been informed that they did not find any oil.

The well on Section 30 in the same township is termed the Redlands well. I am informed that they

quit drilling at twelve or nineteen hundred feet. They did not find any oil. They quit too soon. I think they will find oil within four thousand feet although oil was not found on Section 20 at that depth, as I have been informed. It is my impression that they went through an oil stratum but didn't know it, because in drilling with a rotary rig the sides of the holes may be muddied up and the oil sand formation may be masked. This has happened in several instances that I know of. It happened in the K. T. & O. in the Buena Vista hills where the geologist told the drillers to pull back after they had drilled through an oil formation and didn't find it. It happened in Section 32, 31-23, to the Associated Oil [**479**] Company where the geologist of the company insisted that the drillers had gone through an oil sand and made them pull back and develop, in one instance, a 600 barrel well, and in another instance, a 200 barrel well, when the drillers had sworn there was no oil sand.

It is my opinion that a rotary drill should not be used in prospective territory.

I have not advised the Scottish people to pull back and find the oil. My confidential relations with the Government would not permit it.

The three wells indicated in Section 32, 30-23 as dry wells, are known as the "Midway Pacific." The latest information I had as to these wells is that one of them had been sunk two thousand four hundred feet. I don't think the others were sunk. They may have been spudded in. I don't recollect now. They did not find oil as far as I know. I believe the stratum is deeper there.

The well indicated on Section 28 in the same township is termed "The Hillcrest Oil Well" and as near as I recollect, it is seventeen or eighteen hundred feet. The log on that well does not show oil but shows gas several times. They have not drilled for quite a while; quit because of lack of funds, as I was informed.

On Section 34 in the same Township four dry holes are represented on Exhibit "O." They are known as the "Maxwell" wells. I have no notes as to the depths of these wells. They cannot be of any considerable depth or I should have noted it. They were not being drilled the last time I was there.

In Section 22 of the same Township, four dry holes are noted on Exhibit "O." These are the Associated Company's wells. I do not recollect having received the logs of the wells in this section, but I believe I was informed that one of the holes there [480] is in the neighborhood of twenty-five hundred feet deep. They did not find oil as far as I know of.

In Section 26 in the same Township, three dry holes and one oil well are indicated on Exhibit "O." The Associated Oil Company claims them and has done work on them. I do not know how deep any of the three dry wells are, and to the best of my recollection, I think that none of them is over 2,000 feet.

On Section 24 of the same Township four dry wells are represented on Exhibit "O". They are the Associated Company's wells. I have been informed that one of them is in the vicinity of thirty-five hundred feet deep, as near as I can recollect now. One of the others is ninety feet and I don't

know the depth of the other two. I have been informed that they found oil in one of the wells. I am pretty sure that it is in the well in the southwest quarter. That well was not marked on Exhibit "O" for the reason that the information that they had found oil came to me since the map was made and after the map was introduced in evidence. From an examination of the log of that well I deem it very probable that oil has been found there. I have not seen it. It is found, as near as I remember, between 3100 and 3200 feet. I was not informed as to the quantity of oil found. I believe these wells are being tested at the present time.

In Section 30, 30-24, three dry wells are represented. I cannot recollect how deep they are. The best of my recollection is that they were only spudded in.

There are no wells at all in Section 32, 30-24 where I found an oil sand.

The solid red circle on Section 7, 31-24 of the Exhibit "O" is a well belonging to the Elk Hills Company. The last report I remember from that well, it was 3800 feet. My recollection is that it revealed oil; I think gas and oil.

In the flats between the Buena Vista Hills and the Elk [**481**] Hills, there are a number of dry wells. I have been informed that one well in Section 28, 31-24 is four thousand feet. No oil was found that I heard of.

I know where Bellridge is. The Bellridge camp or the first camp is situated in Section 33, 28-21. I know a well in Section 9 in the township south of

that, sunk by the Union Oil Company. The last report I remember from that well it was 3160 feet and the log did not show any oil.

I do not know of the Gould Hill anticline.

The fact that that well had been sunk to such a depth without discovering any oil sand did not indicate to me that the overlying formation known as the "McKittrick" formation on the northeast side of the Temblor Range, was far thicker than I had estimated. A more likely reason why they had not discovered oil would be that this well, commonly called the Hopkins Joint well, lies in the syncline between the Bellridge anticline and some other anticline further to the southwest. It has not been positively proven that there is an anticline northeast of the Union Oil Company's well. I cannot state whether there is one there or not.

I am of the opinion that if the Elk Hills are valuable for anything, they are valuable for oil. I do not think they are commercially valuable for fuller's-earth. Some of the material I have found in the Elk Hills I would term "Fuller's-Earth", but in my opinion, there is not sufficient of it existing in the Hills to be commercially valuable. A great deal of what is called Fuller's-Earth in the Elk Hills is clay. I do not think that the gypsum deposits in the Elk Hills are commercially valuable.

RE-DIRECT EXAMINATION
OF
F. OSKAR MARTIN [482]

Taking into consideration all of the wells in the

Elk Hills and all my information regarding that region, I am of the opinion that it is chiefly valuable for oil.

In my opinion, the fact that the land had been withdrawn by the Secretary by order of the President, had some bearing upon the abandonment of certain wells, because some of the drilling companies may have realized that by recent decisions of the Secretary of the Interior or the General Land Office the withdrawal of September 27, 1909, might be strictly enforced, and realizing that they could not get a patent to the land unless they had started development work prior to that date, that may have influenced them to abandon the work. And, in other cases, I was told, and I have no reasons to doubt, that it was a shortage of funds.

As to the relative energy with which the Associated Oil Company has prosecuted its oil operations in the Elk Hills and in other places where it is operating, I will say that from my visits to the Elk Hills and other properties of that country, they displayed less energy in the development work in the Elk Hills than they did on other holdings. Several times I have been in the Elk Hills and I have only found watchmen there and no work progressing on some of the wells.

RE-CROSS EXAMINATION
OF
F. OSKAR MARTIN

According to my observation, the Associated Oil Company has been more active in its operations in

the Elk Hills than any other company there, and has revealed the only oil that has been found in those hills, so far as I know. I have not discovered any indications of a desire on the part of that company to bury up or conceal the oil there. They furnished me information and logs. [**483**]

At this time the plaintiff offered in evidence a certified copy, exemplified under the seal of the General Land Office, of the official plat of the survey of Township thirty south, Range twenty-three east, M.D.M., approved by the Surveyor General on March 19, 1856, showing the earliest surveyed portion of the Township, which was marked "Plaintiff's Exhibit P". Plaintiff also, at that time, offered in evidence certified copy of the field notes of the survey of that Township made by J. M. Duee, in 1901, which was marked "Plaintiff's Exhibit Q", and from which a general description therein was read into the record as follows:

"All that portion of Township 30 South, Range 23 East, Mount Diablo Meridian, included in this contract, is mountainous and the soil is similar throughout, being of a sandy nature, with occasionally some fine gravel and in my judgment should be termed second-class land.

"There is no timber, and the underbrush consists of low sage-brush.

"There are no springs or running water in the Township.

"There are no settlers on any of this land, but it has been used for many years as sheep pasture.

"This township is situated within what is known as the Midway Mineral District, which is the name given to a district within which many successful oil wells have been developed. To the northwest is what is known as the McKittrick District, the center of which is about Sec. 18, T. 30 S., R. 22 E. To the southeast is what is known as the Sunset District, the center of which is about Sec. 7, T. 11 N., R. 23 W., and the Midway District is on the line of oil developments between the two.

"The surface of the ground in T. 30 S., R. 23 E., from the southeast corner running northwesterly shows a geological formation, with asphaltum exudations, that is regarded by experts as an almost sure indication of the presence of valuable petroleum [**484**] deposits.

"The land I have surveyed being more valuable for mineral than for agricultural purposes, I return the following sections as mineral land: S.E. ¼ and W. ½ of Sec. 14, all of Sec. 15 and 16; E. ½ and S.W. ¼ of Sec. 17; S.W. ¼ and E. ½ of Sec. 19, all of Secs. 20-21-22-23-24-25-26-27-28 & 29; E. ½ and N.W. ¼ of Sec. 30; N.W. ¼ and E. ½ of Sec. 32 and all of Secs. 33-34-35 and 36.

"The Kern County Abstract Co. at Bakersfield has furnished me a diagram showing the mineral claims recorded on the County Records, and I find these claims represented on the ground by stakes and mounds.

"I submit herewith a list of the mineral claimants as reported by the said Abstract Company."

Plaintiff then read into the record the list referred to in the general description quoted above. [485]

A. C. Veatch, a witness called and sworn on behalf of the plaintiff, testified as follows:

DIRECT EXAMINATION

By Mr. Mills:

Q. Mr. Veatch, will you please state your full name and residence.

A. A. C. Veatch. My residence is Washington, D. C.

Q. Mr. Veatch, what has been your training and experience?

A. In 1897 I was assistant in charge of one section of the Indiana University Geological Survey, working in Indiana. In 1898 I was a member of the Cornell University Geological Survey of the Tertiary, working in the coastal plain from New Jersey to Mississippi. 1898 to 1900 I was assistant state Geologist of Louisiana. 1900 and 1901 assistant in charge of areal and stratigraphic geology in Cornell University summer school of field geology. 1901 and 1902, geologist Houston Oil Company, working in the Louisiana and Texas oil fields. 1902 I was appointed Professor of Geology in the State University of Louisiana, and State Geologist, which position I resigned to accept a position in the United States Geological Survey. I was with the United States Geological survey from December, 1902, until 1910. 1910 and 1911 I was engaged in work in the Trinidad and Venezuela oil fields. Generally, since my resignation from the Geological Survey, I have been engaged in work as consulting geologist.

Q. Were you, at any time while in the United States Geological Survey, chairman of the land classification board?

A. Yes; I was chairman of the coal land classification board and chairman of the oil land classification board.

Q. Did you, at any time, at the request of President Roose[486]velt, make any examination into the coal land conditions and laws and so forth of any countries besides the United States?

A. I was appointed a special commissioner to investigate the mining laws of Australia and New Zealand in 1907, and made examinations.

Q. Are you acquainted, Mr. Veatch, with the oil fields of that portion of California represented by what is known as the McKittrick and Sunset districts?

A. Yes.

Q. Do you know what has been termed, locally, as the Elk Hills?

A. Yes; I have personally visited the Elk Hills.

Q. When?

A. In February and March of this year.

Q. Will you please describe the general physical aspect of the Elk Hills?

A. The Elk Hills are an elongated group of hills extending northwest and southeast, about sixteen miles long, six or seven miles wide in the widest portion, which rise rather abruptly from the San Joaquin Valley, on the western side, to an elevation of a thousand to twelve hundred feet above the level

of the valley at that vicinity. It is separated from hills on the south, the Buena Vista Hills, by a relatively level valley, from which it rises to an elevation of five or six hundred feet from the highest portion of the valley. A comprehensive idea of the aspect of the Hills, their general relation to the San Joaquin Valley, is shown in photographs that I took at that time.

Q. Now, have you made such examination of the hills as to be able to state whether or not the general aspect, as you saw them in the early part of this year, is substantially the same, with the exception of oil derricks or works of man, as they were [**487**] or must have been in the year 1903 and '04, and, if so, state your reasons.

A. I should say that except for artificial changes at the hand of man, the hills are essentially in the same condition. The aspect would not vary in any material degree from what it was in 1904, for the reason that it is a region of very low rainfall and the amount of erosion that would take place in the few years between 1904 and 1912 would be very inconsiderable, entirely negligible.

Q. Now, have you made any photographs of any portions of the Elk Hills during your visits there in the early part of this year?

A. Yes.

Q. Have you the photographs here?

A. Yes; I have.

Q. I will show you this photograph. Will you tell me who took it and what it represents?

A. I took the photograph on the 1st of March of this year, the smaller negative from which this picture was enlarged. It was enlarged directly from the negative and so cannot differ in any respect.

Q. Negative made by you?

A. Yes; exposure.

Q. What does it represent?

A. This is a general view of the Elk Hills. It is a view looking southwest from the bridge over Buena Vista Slough, in Section 28, Township 29 South, Range 23 East. The relatively level San Joaquin Valley shows in the foreground, and the hills in the background. The portion of the Elk Hills shown is that portion involved in this suit and I know from examination in the hills that the lands lie on both sides of the summit shown in this picture. [488]

Q. Will you please state whether the photograph that you have in your hand is a correct picture of the conditions as you found them at the time you took that picture?

A. It is.

Mr. Mills—I offer this in evidence.

Mr. Lewers—No objection. When I say "no objection" to the introduction of any exhibit, of course I don't mean to waive any former objection which I have made.

Mr. Mills—No.

The photograph last referred to and offered in evidence is marked "Plaintiff's Exhibit "S"—L.L."

Q. By Mr. Mills—Now, I hand you another pho-

tograph, Mr. Veatch. Will you state whether you made it?

A. I did.

Q. And on the same trip on which you made these other photographs?

A. Yes. This negative was exposed on March 1st, 1912. It represents the southwest portion of Section 19.

Q. Of what township and range?

A. Township 30, Range 23 East, and shows the barren, gullied character of these lands.

Q. Does that picture faithfully represent the conditions in the field at the time you took the picture?

A. It does.

Mr. Mills—This is offered—subject, I suppose, to the same possible objection.

Mr. Lewers—It may be admitted subject to our general objection. [489]

The photograph last referred to and offered in evidence is marked "Plaintiff's Exhibit T—L.L."

Q. By Mr. Mills—I hand you another picture, Mr. Veatch. Will you please state who took it and what it represents?

A. I took the picture on February 22nd of this year. It represents Section 23, of Township 30 South, Range 23 East, and adjoining lands.

Q. Does the picture faithfully represent the conditions as they were in the field at the time you took the picture?

A. It does.

Mr. Mills—I offer this in evidence as government's Exhibit U.

Mr. Lewers—It may be admitted, subject to our general objections.

The photograph last referred to and offered in evidence is marked "Plaintiff's Exhibit U—L.L."

Q. By Mr. Mills—I hand you another picture, Mr. Veatch. Will you please state who took that picture and what it represents?

A. I took this picture, on February 22, or the negative from which it was made. It represents portions of Sections 23, 24, and 25 of Township 30 South, Range 23 East.

Q. Does that picture faithfully represent the conditions in the field at the time you made the exposure?

A. It does.

Mr. Mills—We offer this in evidence as government's Exhibit V.

Mr. Lewers—It may be admitted, subject to our general [490] objection.

The photograph last referred to and offered in evidence is marked "Plaintiff's Exhibit V—L.L."

Q. By Mr. Mills—I hand you another picture, Mr. Veatch. Will you state whether you took that picture and what it represents?

A. I did. It represents Section 25 of Township 30 South, Range 23 East, and adjoining lands.

Q. Does that picture, with the exception of the oil derricks and artificial creations of man, faithfully represent the conditions as they existed in 1903 and '04?

A. It does.

Mr. Mills—I offer this in evidence as government's Exhibit W.

Mr. Lewers—Same objection.

The photograph last referred to and offered in evidence is marked "Plaintiff's Exhibit W—L.L."

Q. By Mr. Mills—I hand you another picture, Mr. Veatch. Please state whether that is the re[illegible] of an exposure made by you in the Elk Hills [illegible] what it represents.

A. It is. It represents the northwestern portio[illegible] of Section 29 of Township 30 South, Range 23 East.

Q. And, with the exception of the derricks and buildings on the land, does it faithfully represent the conditions as existing in the Hills in 1903 and '04?

A. It does.

Mr. Mills—We offer this in evidence as government's [491] Exhibit X.

Mr. Lewers—It may be admitted, subject to our general objection.

The photograph last referred to and offered in evidence is marked "Plaintiff's Exhibit X—L.L."

Q. By Mr. Mills—I hand you this picture, Mr. Veatch. Will you please state whether the picture was taken by you, and, if so, what it represents?

A. It was. It represents the central portion of Section 29, Township 30 South, Range 23 East.

Q. And, with the possible exception of the road shown on the picture, does it faithfully or substantially represent the conditions in 1903 and '04?

A. It does.

Mr. Mills—We offer this in evidence as government's Exhibit Y.

Mr. Lewers—It may be admitted, subject to our general objections.

The photograph last referred to and offered in evidence is marked "Plaintiff's Exhibit Y—L.L."

Q. By Mr. Mills—Mr. Veatch, have you endeavored to obtain data by which to correctly depict the state of knowledge of development of this field—and by that I mean the Elk Hills and surrounding territory—including the lands in suit, in 1904?

A. I have.

Q. And, as the result of this examination, the collection of the information, have you reported on the mineral value of this area as shown by evidence existing in 1904? [492]

A. I have.

Q. What is the nature of that report?

A. In that report I endeavored to give, as concisely as possible, the simple principles which guide practical men in determining, in advance of development, the value of lands for minerals where these minerals, such as oil, occur in stratified deposits, and to show the connection of these principles with the Elk Hills territory, and, specifically, the land involved in this dispute.

Q. I have here a report which you furnished me on March 21st of this year, and I will ask you if you recognize it as a report made to me?

A. It is.

Q. In order that the matter may be presented in

the record in concise form, I will ask you to read that report into the record.

Mr. Lewers—I object to that method of introducing the testimony. The witness is here, and if he has any testimony to give it should be given by the method of question and answer in order that we may make our necessary objections as each matter comes up, and this method of endeavoring to introduce the evidence of a witness by introducing a document which he has prepared beforehand is without sanction, and is objectionable and is objected to, on the ground that it is purely a hearsay declaration of a witness, made out of court and not made under the method provided for the taking of testimony in court. I make the further objection that we have had no opportunity to examine this report the witness is now called upon to read into the record.

Q. By Mr. Mills—I will ask you if the report you have prepared is predicated entirely upon conditions existing prior to 1904? [**493**]

A. It is.

Q. I think in order to get the matter presented in connected and concise form and in consideration of the fact that the report is very short, I will ask you to read it into the record.

Mr. Lewers—Will you permit me to examine the report before that is done?

Mr. Mills—Certainly. It is very short, and I simply want to have it some place in the record in concise and connected form.

Q. I will ask you, Mr. Veatch, to state, in a gen-

eral way, what your opinion was as to the conditions, in 1904, and your opinion generally upon the subject-matter of your report. You may refer to your report in any way you desire, if you care to.

Mr. Lewers—I object to that method of examination as an obvious subterfuge to avoid the objection heretofore entered; and I ask to be permitted to examine that report before that is done.

Q. By Mr. Mills—Do you care to refer to it?

A. No.

Q. All right. Go on and answer the question. You may state, in cases where mineral occurs in stratified rocks, whether it is frequently possible or at all possible, from surface exposures, to determine their depth, in your exploration?

Mr. Lewers—To which we object, on the ground that the question is leading and suggestive.

A. Where minerals occur in stratified rocks, it is frequently possible to determine with exactness their extent and value and other factors important in their appraisement and development. That is the method which has been employed for many years by practical men in such subjects. Stratified [494] rocks are laid down in relatively regular layers, for the most part, beneath the sea, and are to be contrasted with other rocks formed by igneous intrusions or volcanic outpourings or which have been so altered by metamorphic action as to lose their former characteristics. The individual layers of stratified deposits can be traced for many miles, and in many cases hundreds of miles, showing to a great extent the same charac-

teristics, and it is on this regularity or irregularity as shown by the outcrop that practical men base their conclusions and have spent great sums of money in developing minerals of the kinds which occur in stratified deposits.

Q. By Mr. Mills—Now, what substances of economic importance, if any, occur in stratified rocks?

A. Among the most important are coal, water, oil and phosphate.

Q. Do these differ in any degree in the mode of occurrence from vein or lode deposits?

A. They differ very markedly from most deposits of ores, and entirely from veins or lodes, which are of very irregular character.

Q. Where stratified rocks containing coal, phosphate, oil and water are exposed at the surface by uplifting or folding and erosion, you may state whether it is possible to examine stratified beds of that character at the surface and to determine their extent.

A. It is on these exposures that the conclusion is based. The beds, after deposition, are folded up and eroded, and the effect of this erosion is to enable the geologist to examine the character of the rocks as fully and carefully as he could in an enormous trench dug through the surface of the earth. Extending for many miles it forms a much more sound basis for [495] judgment than a single development.

Q. Can you draw any analogy in that mode of study of stratified beds in the case of oil deposits with that of coal, for example?

A. Yes. They both occur in stratified deposits and are subject to much the same laws; and you can—In the case of a coal deposit, where the erosion has entirely removed the strata around a given area, you have that area rising as a hill above the surrounding region. If, in such a case, you find the coal outcropping on one side of the hill and follow that coal bed around the hill, as you can, by natural exposures, and find it goes entirely around the hill, you know absolutely that the coal underlies the hill and are justified in buying that land as coal land in the absence of any development. In a similar way, if you find a coal bed exposed on the side of a valley, dipping beneath that valley, and follow the bed around the valley, you know that the valley is underlaid with coal, and by the change of slope of the beds you can calculate the depth of that coal bed in that area which is underlaid with coal. In the case of oil or water you can follow the sand bed or other porous bed suitable for containing them, in exactly the same way as you do the coal bed. You can determine the existence of that porous strata in the same way you can determine the existence of the layer of coal, and in a similar way you can calculate the thickness or the depth of that porous bed under different portions of the territory. You follow the same method. The presence of oil or water in the porous bed can be indicated either by springs along the outcrop, in the case of water, or seepages in the case of oil, or, failing those, their presence may be demonstrated by a well or a group of wells. Such a well or group of wells,

taken in connection, or such [**496**] seepages taken in connection, with the determinal persistence of these beds and the geological structure, warrant the development of territory in which you have not drilled. It shows the presence of the substance desired under the lands.

Q. What does the result, the value of the result, rather, of such observation depend upon?

A. It depends upon the accuracy of the observations.

Q. May a competent geologist determine the extent of an area by such observations—an area containing deposits of coal, phosphate, oil or water?

A. Yes; it is frequently done.

Q. Do you know of any illustration, in the case of underground water, for example?

A. Well, the most notable case of extensive drilling on predictions of geologists is in the case of underground waters. The United States Geological Survey has for many years been preparing reports on underground water basins, and it is one of the important services that this bureau has rendered the country, by the determination, in advance, of the drilling of the artesian basins. Notable cases are the Dakota sandstone, in North and South Dakota, the Saint Peter sandstone in Wisconsin and Illinois, and numerous cretaceous and tertiary water horizons through the Atlantic and Gulf Coastal plains.

Q. Extending how far?

A. Extending from New Jersey to Mexico.

Q. In what does oil differ from water in such determination?

A. It differs from water in this, that where water and oil [497] are both present in the porous bed, the water tends to accumulate in the lower portions of the strata or synclines, forcing the oil into the higher portions of the folds or anticlines of the strata; and it is for this reason that it is particularly important, in a new field, to determine the position of the anticlinal features. Water and oil do not always occur in the same porous strata; and, where they do not, the oil, of course, is—the synclinal is just as good as the anticlinal area, probably better.

Q. What would you say about the determinability of the extent of an area of deposition of oil, that is, by wells or groups of wells, as to the presence of oil in synclinal areas?

A. The presence of oil in synclinal areas is a matter of doubt—there is the possibility of water in the synclines; and for that reason, in new developments the development starts along the outcrop near the seepages, that is, down the dip from the seepages, and progresses, or should progress, gradually toward the synclinal area, with the end of determining the exact limit of the water saturation, if there be any; and, in the same way, the development would start in the anticlinal areas and work down to the synclinal areas, the anticlinal being much better territory for the reason that it lacks the danger of water.

Q. You may state whether the oil value of lands not yet drilled may be demonstrated by any evidence whatever excepting by the drill?

A. I think they can, in the same way that the coal can be demonstrated by the outcrops. It is the same principle in every way. It has frequently been demonstrated in advance of the drilling.

Q. Now, in the case of the Elk Hills, have you made any [498] examination of those hills with reference to their possible oil-bearing value?

A. I have.

Q. What conclusion did you reach as to the oil character of the Elk Hills?

A. That they are oil land. I may say that my investigations were directed primarily to the determination of the conditions existing in 1904 and the conclusion is predicated on the evidence which existed at that time. In a general way to outline the proposition, there are a series of porous beds and associated clays which are well designed, on the one hand, to afford a reservoir for the oil, and, on the other hand, to prevent undue leakage, which may be traced for many miles along the flank of the Temblor Range, the east flank, in this case, being the important one for this question. In that area, there are seepages which have been there from the beginning, which extend for a distance of over fifteen miles, showing the persistence of the oil saturation in these porous layers.

Q. Are they exposed, at all, in any way—those beds?

A. Yes.

Q. Whereabouts?

A. They are exposed on the east flank of the Tem-

blor Range and may be followed there for a great many miles and the porous character readily determined. Now, taking this distance of seepages of fifteen miles, and which is, I may say, greater than that, but that is an area that is adjacent to this that is easily shown, it shows impregnation of oil strata extending at least seven and a half miles from a given center. Applying this distance of seven and a half miles from the outcrop, it includes the Buena Vista Hills and the Elk Hills, and the only question which could remain regarding the oil value of the territory outlined [499] in this way would be with respect to the synclinal areas, the valley lying between the Elk Hills and Buena Vista and McKittrick Hills and the valley lying between the Buena Vista Hills and the outcrop along the front of the range. Both the Buena Vista Hills and the Elk Hills fall within the proven area from geologic determinations.

Q. Now, referring to the flanks of the Temblor Range that you have spoken of, in which way do those beds, if you know, dip, in a general way?

A. They dip, in a general way, towards the San Joaquin Valley. The general slope is interrupted by folds which are, roughly, parallel to the main fold of the axis of the Temblor Range, and, forming these folds, rise as groups of hills above the surrounding country, and their structural character is evident even to the most casual observer.

Q. What are they, broadly speaking—the evidences you refer to? Is that the Elk Hills and Buena Vista?

A. They are elongated domes of ideal structure for oil accumulation.

Q. Are there any other evidences which would in anywise corroborate the prediction of oil in the Elk Hills you have stated?

A. If any corroboration were needed with regard to the line of evidence outlined, it is found in the seepages in the Buena Vista Hills and in the Elk Hills; and any questions which might arise with regard to the persistence of the oil, as shown by these seepages, are conclusively set aside by a great series of wells which had been sunk prior to 1904 down the dip from these seepages, and connecting, showing that the seepages represented oil in commercial quantities.

Mr. Lewers—I move that all the testimony concerning wells [**500**] sunk before 1904 be stricken out, as it appears that is purely hearsay. The witness was not in there until 1912.

Q. By Mr. Mills—Do you know whether or not, from any public evidence accessible to you, that these seepages you have referred to have been known for any considerable period of time?

Mr. Lewers—Objected to, as calling for hearsay testimony.

Q. By Mr. Mills—Or from any exhibits in this case?

A. Yes. The seepages are shown on a number of the township plats which have been introduced. They have been testified to by a great number of witnesses. The witnesses have testified to considerably more

seepages than I had to base my conclusion on. If it was possible to strengthen the conclusion, it would be strengthened by some of that evidence.

Q. What would you say of the evidence from the geologic structure and seepages to which you have referred, along the base of the Temblor Range, as in any wise tending to form an opinion in your mind as to the oil value of the land in the Elk Hills, and particularly in the lands in suit?

A. Well, as explained, the determination of the oil value of the lands in the Elk Hills is predicated on the seepages which occur along the flank of the range. They prove the extent of the oil-impregnated zone and in that way demonstrate the oil value of the Elk Hills.

Q. Referring to the wells testified to by you as existing prior to 1904 along the flank of the Temblor Range, how was your knowledge of these wells gained?

A. It was gained from various published reports, but specifically showing the exact locations and exact conditions in 1904, from the Barlow & Hill prospectus of that region which have been introduced in evidence.

Q. And as testified to by Mr. Hill? [501]

A. Yes.

Q. And Mr. Blodget and other witnesses?

A. Yes; a great number of witnesses testified to the existence of wells in there, but the specific locations of the wells shown on Exhibit I, taken from the

Barlow and Hill map, which is the most complete and comprehensive statement of those wells.

Q. Those maps to which you refer are government's Exhibits H a, b and c?

A. I think so.

Q. Now, how was your knowledge of seepages obtained?

A. It was gained from various public records, the field notes and plats of the surveys in this region, and from the affidavits and statements of persons who have since appeared and testified in this suit.

Q. Have you been present at all the sessions of the hearing of this equity suit No. 221, and have you heard the testimony of the various witnesses produced by the government?

A. I have.

Q. Now, in order to have it some place in the record, specifically, I will ask you, if you can do so, to give reference, by page numbers of the Examiner's transcript, to the testimony of the witnesses already sworn by the government, regarding seepages in this region, prior to 1904.

A. With reference to the country northwest of McKittrick, Silas Drouillard testified, page 35 of the Examiner's record in this case, he followed the seepages extending northwest from McKittrick to Carneros Spring, which is in Township 29 South, Range 20 East, fourteen miles northwest of McKittrick. Specifically, B. K. Lee, page 297, testified to dry oil sands in Sections 18, 35 and 36, in Township 29 South, Range 21 East, and F. J. Sarnow, page 233,

also knew of the sand in Section 36. [502] Nearer McKittrick, in

Township 30 South, Range 21 East,

Silas Drouillard, pages 33 and 42 spoke of using the oil at the Bond Spring for doctoring stock, in 1874, and this locality is specifically described by B. K. Lee, page 296, as the tar spring in the southwest quarter of Section 12.

Township 30 South, Range 22 East,

the township in which McKittrick is situated, the large seepages which occur along the faulted structure south and west of the town of McKittrick or Asphalto as it was called in early days, are described by many witnesses. H. M. Shreve, who first came to this locality in 1888, page 762, says: "In various portions of 30-22, in the immediate vicinity of McKittrick there are large showings of liquid asphaltum oozing from the ground." These are likewise described by Charles Brisco, page 495, and F. J. Sarnow, page 212, Silas Drouillard, pages 62, 72 and 73, Ira M. Anderson, page 162, John Jean, page 96, H. A. Blodget, pages 607 and 609; and W. E. Youle, page 1010. Specifically, in this Township 30 South, 22 East, Silas Drouillard, pages 78 and 79 described oil sand cropping in Section 5; B. K. Lee, page 297, in Sections 8, 17, 18, 20, 28, 29, 34 and 35. The seepage near the railroad track, in Section 14, which lies on the axis of the Elk Hills anticlinal, was mentioned by Ira M. Anderson on page 188; Colon F. Whittier page 797; N. C. Farnum, page 859; F. J. Sarnow, page 210; B. K. Lee, pages 297 and 309; C. W. La-

mont, page 1083, Ira M. Anderson, page 196, and N. C. Farnum, page 896, fixed the seepage at some distance from the railroad track in the hills.

Mr. Lewers—I object to this method of examination. The time has not come for the argument of this case. I object, on the ground that the witness is drawing his conclusions as to [503] the meaning of the testimony, which is a matter for the court to determine. And I move that the answer so far given be stricken out.

A. (Continuing) S. P. Wible, page 441, refers to seepages in a number of places west of the railroad track, which includes Sections 15 to 17. On page 443 he testified that he told Mr. Owen about them in 1901 and Mr. Owen said he had found others as well. Exhibit C, plat of survey of August 18, 1871, shows oil springs in Sections 20, 28 and 29, and Exhibit D the survey of November 18, 1893, shows evidence of oil and asphaltum in Sections 19, 20, 27, 28 and 29.

Q. By Mr. Lewers—What township?

A. This is all in 30-22. W. E. Youle, page 1014 described a heavy bed of asphalt, about ten feet thick, in Section 24; Ira M. Anderson, pages 162 and 163, describes asphaltum, oil sand, and gas which he lit in Section 34; Colon F. Whittier, page 799, described asphaltum along in the fault running from the northwest to the southeast and cropping very prominently in Sections 34 and 35.

Township 30 South, Range 23 East.

Captain Frank Barrett, page 822 and 823, 828 describes a seepage which gave trace of oil chloroform

test, in Section 17, and states, in general, that there were several seeps. This seepage in 17 is also described by J. W. Kaerth, pages 702 and 703. In Section 25, near the southwest quarter, J. W. Kearth, page 702 and 703, describes an oil seepage; and M. S. Wagy speaks of a seepage of oil sand, pages 241 and 257, which he locates as approximately in Section 26.

Township 30-24.

The seepage in Section 32 is testified to by numerous witnesses: Silas Drouillard, 31, 36, 38, 49, 53, 56, 57. [**504**] Mr. Drouillard says when he first saw the seepage in 1874 it was wet with oil; It was a dry seepage when he saw it in 1899. Seepages mentioned by John Jean, pages 84, 87, 88; L. G. Sarnow, 104, 106, 114; Ira M. Anderson, 167; F. J. Sarnow, 211, 222, 223, 231; M. S. Wagy, pages 235, 238, 248, 258. Mr. Wagy describes it as a dead oil sand with an odor of oil or petroleum, which burned on fire. J. I. Wagy, page 328, 331 and 336; S. P. Wible, page 434, shows that Mr. Josiah Owen knew of this place prior to 1903 or 1904. Charles Brisco, pages 496 and 497 describes it as a small brea bed, of dried oil, dried asphaltum, and states that he took Mr. Josiah Owen there in 1903. Charles Haberkern, on page 558, speaks of this as a seepage visited by Josiah Owen in August or September, 1904. W. G. Sylvester, page 583, speaks of this as a seepage which you could light and it would burn. The seepage is also described by H. P. Dover, 777, 782, who states that he made another test of it. N. C. Farnum, page 857, 858. C. W. Lamont, pages 1080 and 1081.

With reference to the Elk Hills in general, which includes the hill land in the west center of 30-22 and the south of 30-23 and south of 30-24 and the north of 31-23, 24 and 25; Ira M. Anderson, page 166, states that in numerous places he found sands which gave oil test with chloroform, in 1899. W. E. Youle, page 1020, describes oil sand; on page 1021 states that he tested it with chloroform, found the hills full of gas, burned with gas all over; page 1064 refers to oil sand which gave positive test with chloroform, and 1067 gas stained sand.

Township 31 South, Range 21 East.

Colon F. Whittier, page 799, describes a large cropping in Section 14 and an oil seepage in Section 24.

In Township 31 South, Range 22,

I. M. Anderson, pages 163-164, describes oil seepage on [**505**] Section 22 similar to the asphalt and oil sand in Section 34 of the township to the north. H. A. Blodget, page 609, speaks of large seepage at the head of Elk Valley, two and a half or three miles southeast of large seepage near McKittrick. Colon F. Whittier, 799, speaks of oil seepage in Section 19.

Township 31 South, Range 24 East,

F. D. Lowe, page 133, describes an oil sand in Section 1 as half a mile east of the point on Section 9 where he found an oil sand 300 yards due north of the northeast corner of Section 11. On page 133 he mentions another oil sand, one-half mile west of this point, on the section line, which would be in the central portion of Section 2. He also, on page 135,

speaks of a well drilled to the depth of 560 feet, in 1901, which contained a small showing of oil, and a gas supply, which was used for cooking.

In Township 32 South, Range 22 East,

Colon F. Whittier, page 799, speaks of seepages in Sections 1 and 2, and the seepage in Section 2 is also mentioned by B. K. Lee on page 297. On page 297 the township is erroneously stated as 31-23, but this was corrected on page 319 to 32-22.

Whereupon the further taking of testimony herein was adjourned until 2 O'clock P.M., at the same place.

On Wednesday, May 8, 1912, at 2 o'clock P.M., the further taking of testimony herein was resumed.

A. C. VEATCH,

recalled, DIRECT EXAMINATION resumed.

A. (Continuing.) With reference to

Township 32 South, Range 23 East,

Colon F. Whittier, at page 799, testified to seepage on Section [**506**] 6, and adds that there are several between Section 6 and Maricopa. B. K. Lee, page 297, testifies to outcroppings of oil sand on Sections 21, 22 and 26. The seepage on 26 is referred to also by Silas Drouillard, on pages 34, 25, 36 and 42. John Jean, on page 96, refers to asphaltum in the Midway region without specifying locality.

Township 32 South, Range 24 East,

The gas blow-out in Section 11 of the Buena Vista Hills is referred to by Parker Barrett, pages 946-947; by H. P. Dover, 780 and 792. B. K. Lee, page

307, refers to this as the seepage visited by Josiah Owen. On page 800, Colon F. Whittier describes a blow-out caused by oil coming up through a crevice in the formation, which he set on fire and which burned some two weeks. This is given in the transcript as Township 31-24, but should be 32-24. The seepages in the Sunset region have been testified to by several witnesses: John Jean, page 96; F. J. Sarnow, page 212, states that between Sunset and Maricopa there are some seepages extending probably two or three miles from Sunset toward McKittrick. H. A. Blodget, page 608, describes seepages and development about McKittrick in 1888 and 1889. W. E. Youle, page 1009, mentions seepages in a great many places about Sunset. H. A. Blodget, page 609, testifies to a seepage just south of the Standard line in Section 2 of Township 11 North, Range 24 West, San Bernardino Base and Meridian. Exhibit A, being the plat of survey of Township 11 North, Range 23 West, surveyed November 19, 1858, and Exhibit B, of Township 11 North, Range 24 West, approved April 29, 1874, shows several pitch springs. In general, Ira M. Anderson, page 161, states that extending generally between McKittrick and Sunset there are blow-outs, asphalt and oil, and places where you would see what was asphalt with gas coming up through the center. H. A. Blodget, page 610, states that prior to July [**507**] 1, 1904, there was practically a continuous field from southeast of Sunset to four or five miles northwest of McKittrick,

barring a slip from what would be now Fellows to McKittrick.

Q. By Mr. Mills—Now, Mr. Veatch, you have spoken of an opinion which you formed of the character of the lands in suit and the adjoining lands in the Elk Hills from certain seepages and from certain other physical evidences of adjoining territory, besides the geological formation of the lands themselves and their relation to these seepages. Did you have, at the time you formed that opinion, all of the seepages which you have collected and given reference to in the reporter's transcript at the time you formed that opinion?

A. No; only a portion of them.

Q. Have these additional seepages tended in any way to change your opinion of the oil character of the lands in suit?

A. No. The evidence, without the additions, was to me conclusive, and these would have strengthened it if there had been any doubt.

Q. Referring to the seepage, or gas blow-out, in Section 32 of 30-24, what examination have you made, if any, and with what result?

A. I examined the seepage on two occasions and found a stained sand exposed at intervals for several hundred feet, on the west side of the gulch in which it is situated, and in one or two places on the east side. This sand contains some free sulphur. Tested with chloroform it gives no oil. The sand shows some carbon—particles of carbon—and it is my conclusion that it represents an escape of gas from the oil-bear-

ing zone, the gas carrying some oil with it; that this oil has been deposited in the sand together with sulphur coming from the gas, and that it has been fired —the gas has been lit— [508] and that owing to incomplete combustion a little carbon has been left in some of the sand—which makes it probable to my mind that any one or more persons in the past could have tested that and gotten positive results of oil, if the oil had not burned out. It would probably be, also, a volatile oil, that would evaporate. If there were other earth movements, it would be possible, I think, at some future time, to get a positive test of oil.

Q. You say the oil was probably volatile. What do you mean by that? Do you think the oil in the oil-bearing zone in that vicinity or underlying those lands is more volatile than the oil on the eastern flank of the Temblor Range?

A. Yes; it would be more volatile in the degree that along the outcrop there has been a chance for the escape of gas, or the lighter portions of the oil, which would leave behind the heavier oil. You would thus have heavy oil near the outcrop—asphaltum at the outcrop and heavy oil in a short distance,—which would gradually grow lighter because as you get in the imbed the gases have not escaped. Now, in the Elk Hills there has been no leakage of any consequence. This slight leakage there would represent the most volatile portions of the oil.

Q. Do you know whether or not, from your examination, there is any anticline or anticlinal structure,

in the Elk Hills running through a portion of the lands in controversy, and, if so, state the extent, so far as you have determined?

A. Yes. The Elk Hills themselves are structural hills—and by that I mean that it is an anticlinal fold, in which the present topography shows the essential shape of the fold, and that fold has a few subordinate wrinkles in it, and it is those little wrinkles in the grand uplift or fold which have been referred to as different anticlines. They are anticlinal axes of [509] minor folds. The whole hill itself is a great fold.

Q. Now, you used the words "anticlinal axis" and "anticlinal". Is there any distinction to be drawn between the two terms?

A. Why, the anticlinal axis refers to the line of the crest, the position on the surface of the exact crest or fold. Now, an anticline refers to the whole feature—not the simple line which represents the crest; and "anticlinal" is of course the adjective which describes the feature which is of the nature of an anticline. And in this case the Elk Hills is not a perfectly simple anticline, that is, there are several little wrinkles on it and it would be an anticlinal hill. Broadly speaking, the anticlinal plunges and that gives an elongated dome shape. It might be described as an elongated dome.

Q. In what direction is the strike of the anticline in the Elk Hills?

A. It is just the same as the strike of the hills themselves, which is northwest and southeast.

Q. Are there any other evidences around this gas blow-out or oil seep described by you in 32, 30-24 in the anticlinal structure?

A. Yes sir.

Q. Please describe it?

A. The blow-out is practically on the crest of the anticline there, that is, the little local fold, and is shown by the dips in the canyon. You go north of the seepages and the dips are to the northeast; as you go up the canyon you get dips to the southwest, in the opposite direction. That anticline there is, at that portion of the hill, the major feature.

Q. Now, where are those dips or slopes of the anticline manifested along the Elk Hills?

A. Well, in the gullies, where the erosion has cut slightly [**510**] into the strata, giving you edges and a small cross-section. Along the north slope the gullies show the dip to the northeast and on the southern slope the dips, similarly, show the dip to the Southwest.

Q. Would you say, from the evidences which you discovered there in your observations in the Elk Hills, that the anticlinal structure is well defined or not well defined running through the hills from northwest to southeast?

A. It, I would say, is very well defined. There could be no question whatever regarding the anticlinal nature of the hill. The exact location of the axes of some of these minor folds cannot be located, in some places, within several hundred feet, due to the very slight dip; but, so far as any practical oper-

ations are concerned, that is of no consequence at all.

Q. Have you observed any evidence of this anticline spoken of by you in Section 14 of 30-22?

A. Yes. There is an anticline that is very plainly visible there on the east side of the little gully through which the railroad passes.

Q. Are there any indications of waste, there, of oil?

A. I have seen none. I saw that anticline from the train. I didn't go over and examine it.

Q. Now, calling your attention to government's Exhibit I, with which you are familiar, having prepared it yourself, showing the state of development of this region before September, 1904, and taking into consideration this development and only that portion of the various seepages testified to by the witnesses in this case, and of which you were cognizant at the time you first formed an opinion of the character of the lands in suit, and laying out of view entirely the seepages and asphaltum reefs testified about by the witnesses Kaerth, Captain Frank Barrett [511] and M. S. Wagy as existing before that date in Township 30 South, Range 23 East, and assuming that no visible oil exposures or outcroppings existed whatever in said township at that date, and taking into consideration the geological structure of the region thereabout, would you, prior to December, 1904, have advised a company employing you to sell those lands—and by that I mean the lands in suit—for their agricultural value, and, if not, why not?

Mr. Lewers—To which we object, on the ground

that the question is a hypothetical question, based upon only a portion of the evidence in the case, and upon the further ground that as such hypothetical question it is incomplete, in that it, first, misstates the evidence in the case, and second, does not include within it all of the evidence concerning the conditions that existed prior to the issuance of the patent in this case. We object to it on the further ground that it is speculative, vague and indefinite and is calling for the conclusion of a witness as to his knowledge and belief formed at a time more than six years after the patent was issued in this case, and that for that reason it is not relevant to the determination of what was known at the time and before the time the patent was issued.

Mr. Mills—I will say, in response to that portion of the objection, that I purposely limited the question to only a portion of the evidence. There are many seeps and other indications of oil. You may answer the question.

A. Certainly not. For the reason of the great oil value of the land. The mineral value is greatly in excess of any agricultural value.

Q. You have heard it testified to in this case that one E. T. Dumble, alleged to be a geologist in the employ of the railroad company defendant in this suit, and the late Josiah [**512**] Owen, also alleged to be, by testimony introduced here, a geologist in the employ of the defendant railroad company, during times prior to December, 1904, were quite frequently in the vicinity of McKittrick, formerly called As-

phalto, and one, at least, of these gentlemen having made trips into the Elk Hills, would you say, or do you believe, assuming these gentlemen to be competent oil geologists, that at that time, prior to December, 1904, and at that stage of development, they could have helped knowing the oil character of the lands in suit?

A. The geologic structure of the Elk Hills is so very evident—the hill, as explained before, is a structural hill—that anyone a geologist standing at Asphalto would naturally and at once suspect the character of the fold. If that suspicion were verified by examination, as stated in your question, if the geologist had actually been on the ground, he could not have helped but know absolutely the anticlinal nature of the hill and from the development in McKittrick must certainly have regarded it as an oil proposition.

Mr. Lewers—I move that the answer be stricken out as not responsive; vague, general and indefinite.

Q. By Mr. Mills—And if your employer were not the owner of the land in this suit, would you, in 1904, with the then present stage of development, and without any exposure of oil seepage or outcroppings in the lands in suit, have advised the acquisition of these lands at a price in excess of their agricultural value?

A. Certainly.

Q. In your examination this morning, Mr. Veatch, you mentioned the line of seepages along the Temblor Range as fifteen miles and the oil horizon extending seven and a half miles eastward. Are these seepages limited in extent to fifteen miles? [513]

A. The statement of fifteen miles is an error. It is just half the distance. The actual distance is about thirty miles, and the record should be corrected to read thirty miles, on the one hand, in place of fifteen, and fifteen in place of seven and a half.

Q. By Mr. Lewers—Then your horizon would be fifteen miles?

A. Yes.

Q. By Mr. McCormick—How did you come to make that mistake this morning?

A. In my determination of the region at the time of the examination, I laid it off on a map on which the scale is approximately two miles to the inch. I measured it as fifteen inches and seven and a half inches and the note was made in inches and transposed to miles inadvertantly.

Q. By Mr. Lewers—Mr. Dumble might have done the same thing, might he not?

A. The matter is shown clearly on the exhibit. The distance of the seepages is shown there, and the matter is one of ratio rather than absolute quantity.

Q. By Mr. Mills—Now, Mr. Veatch, counsel for the defendants other than the Equitable Trust Company, in this case, at page 112 of the record, has stated in his objection to certain testimony that, "It is not a fact that petroleum is a mineral, first within the meaning of the act of Congress granting the land to the railroad that is involved in this suit, and, second, that it is not a mineral within any act of Congress or within any recognized or established meaning." Now, I will ask you whether or not petroleum

is a mineral and whether or not it is generally so regarded.

A. Petroleum certainly is a mineral. The only reason which might exist for questioning this arises from the attempt [514] of some scientists to give to the word a restricted meaning in much the same way that some scientists have attempted to give to the word "rock" an enlarged meaning. Both attempts have led to the same result. According to this enlarged definition of the word "rock," water is a rock, and should a man throw water on another he would, under this definition, be technically said to strike him with a rock. In attempting to give a scientific meaning to the word "mineral," some scientists have defined a mineral as any substance of inorganic origin of definite chemical composition occurring naturally within the earth. If this definition is followed out strictly, it would exclude everything in which organic matter has been a factor in its formation. Many deposits of iron ore will be excluded. A commercial ore is seldom of definite chemical composition and under this definition would, strictly speaking, not be a mineral, although composed of an aggregate of several minerals. Under this definition coal is not a mineral, since it is clearly of organic origin. That Congress had no such restricted definition in mind when it used the word "mineral" is shown by the fact that it found it necessary to expressly grant coal to the railroad, because under this restricted definition coal is not a mineral since coal is an organic article.

Mr. Lewers—I again object that this is not the time to argue the case.

A. (Continuing) I wish to say this is not a legal argument, but purely a scientific statement. Some petroleums are of inorganic origin, and this definition thus leads to the absurdity that in some cases petroleum would be a mineral and in others not. Both coal and oil are generally regarded by geologists to be minerals. No report on the mineral resources of a country is complete without a description of the coal and oil, if there by any, as is evidenced by the national and state [515] survey reports throughout this country and the world. The word "petroleum" is derived from "petros," a rock, and "oleum," oil—that is, rock oil—and in the early stages of its development, prior to the passage of the act of 1866, was an oil referred to as mineral oil to distinguish it from vegetable oils, such as olive oil or linseed oil, on the one hand, and animal oil, such as sperm oil on the other.

Mr. Mills—You may take the witness.

Mr. Lewers—I desire a transcript of the testimony of this witness before taking up the cross-examination; so, if you have any other witness to put on, I suggest that the cross-examination be postponed.

Mr. Mills—No; we can't go on any further, then, until you get a transcript.

Mr. Lewers—I desire at this time to have it go into the record that all of the affidavits referred to by Mr. Veatch as having been used as a basis for his forming his opinion I desire to be submitted to me for use during the cross-examination.

Q. By Mr. Mills—At this time I will ask, Mr. Veatch, if you had any talk with any witnesses whatever, yourself, as to oil seepages after you read these affidavits.

A. I did.

Q. Did you talk with all of the witnesses whose affidavits you read, in forming your opinion?

A. Practically so. I certainly testified to enough—

Mr. Lewers—Yes; I think you did.

A. (Continuing) I certainly talked with enough of them to warrant the opinion that I have expressed—that is, over the evidence of a sufficient number of seepages to warrant the conclusion. And, in addition, there are a number of published official reports of one kind or another which give information [516] along the same line, which I naturally went over very carefully.

Q. By Mr. Mills—Well, can you state now, Mr. Veatch, whether or not your opinion was formed by talks with witnesses regardless of any statements or affidavits which you previously read?

A. I think that in some cases I didn't talk to the witnesses before I wrote that report, but I talked with enough of them to warrant the opinion expressed.

Q. Before you made the opinion?

A. Yes; that, in connection with the corroboration of their statements by published reports and reports which relate to the field work, prior to January 1st, 1905.

Q. Then, in fact, your report is not based upon affidavits and statements?

A. It is not; that is, it is not essentially based upon the affidavits. I used some of the affidavits, but if the affidavits had not been at hand and I had simply talked with the witnesses that I did talk to and had the published reports referred to—that is, the field work prior to January 1st, 1905—I would have had sufficient data to form an opinion.

Mr. Lewers—I still want those affidavits.

A. (Continuing) I might state that the testimony which I offered this morning was not the report that has been referred to but was my opinion given after hearing all of the witnesses in court and would be based upon much more information than I had at the time that I wrote that report, which was not put in evidence.

Mr. Lewers—Still I want to know what reply will be made as to furnishing me those affidavits.

Mr. Mills—Well, in view of the witnesses's statement, I see no reason for urging the production of the affidavits, because [517] he has stated that his opinion as expressed here in evidence was made on statements made by the witnesses and that the affidavits which he read were in no wise essential to that opinion.

Mr. Lewers—That is the witness's conclusion; but in the light of certain portions of the witness's testimony which I very distinctly recollect, and in the light of certain statements made by the witness near the concluding portion of his direct examination, I

still think that we are entitled to those affidavits for the purpose of cross-examination, as those affidavits certainly formed a portion of the basis for the conclusions reached by the witness under the testimony already introduced. For that reason I insist upon the demand that we be furnished with those affidavits.

On Saturday, May 11th, 1912, at 10 o'clock A. M., the further taking of testimony herein was resumed.

DIRECT EXAMINATION
OF
A. C. VEATCH resumed,

By Mr. Mills:

Q. Mr. Veatch, on direct examination you were asked this question: "Q—Now, how was your knowledge of seepages obtained? A—It was gained from various public records, the field notes and plats of the surveys in this region, and from the affidavits and statements of persons who have since appeared and testified in this suit." Will you identify those papers I hand you and state whether or not those are the papers referred to by you, and affidavits?

A. They are. They are in addition to the verbal statements made to me. [518]

Mr. Mills—Let the record show that the so-called affidavits referred to by the witness are now tendered to Mr. Lewers.

Mr. Lewers—I have received, at this moment, from Mr. Mills, five papers purporting to be affidavits of Charles A. Brisco, Frank D. Lowe, Bernard K. Lee, Silas G. Drouillard and J. I. Wagy.

Q. Are these the only affidavits which you considered in reaching your conclusions concerning the Elk Hills?

A. They are.

Q. Did you have in your possession, or had you examined, the affidavits of any other persons?

A. Yes. But they related to other matters, not to geologic data nor not the basis of the conclusion on the matter of seepages.

Mr. Lewers—At the conclusion of the direct examination of Mr. Veatch, you stated, Mr. Mills, that you would give me the affidavit of Mr. J. B. Treadwell. I don't find that in the papers which you have handed me, and I would like to have it produced.

Mr. Mills—That affidavit of Mr. Treadwell does not relate to seepages, and at the proper time, if it seems important to my end of the case, I shall certainly produce it.

Mr. Lewers—Have you an affidavit by Mr. J. B. Treadwell?

Mr. Mills—I have a statement from him.

Mr. Lewers—Have you an affidavit?

Mr. Mills—I don't recall just now whether he went under oath at the time that was taken or not.

Mr. Lewers—Then, when you made the statement that you had an affidavit from Mr. Treadwell, it was a statement made unadvisedly?

Mr. Mills—Well, I am not referring now to anything that the special agents may have procured from him. I refer to a [519] statement that he made to me personally.

Mr. Lewers—Then you don't know that he has ever made an affidavit, in other words?

Mr. Mills—Well, I can't say positively at this moment, but my impression is that he did.

Mr. Lewers—Which affidavit was it that you offered to deliver to me on that occasion?

Mr. McCormick—Now, I think, if you will recollect, that the statement of Mr. Mills at the adjournment the other day at the close of Mr. Veatch's direct examination, offering an affidavit of Mr. Treadwell, was more in the nature of a bit of humor or of a joke than anything else. I am sure he so intended it, and I think from your conduct at the time you understood it the same way.

Mr. Lewers—The record does not show, nor did the manner of the offer indicate, that it was intended as a joke.

Mr. McCormick—We were then discussing affidavits that Mr. Veatch had seen and examined which had had more or less effect upon his mind in producing certain testimony that he has testified to here on the stand. It was never Mr. Mills's idea, nor Mr. Veatch's either—I don't think he said anything which would justify you in considering that the Treadwell affidavit had anything to do with Mr. Veatch at all. I distinctly remember that it was, as I say, in the nature of a joke, or of the same character of talk that has pervaded a number of conversations before in this hearing.

Mr. Lewers—Then I take it you have no Treadwell

affidavit that you are willing to deliver to me? Is that correct?

Mr. McCormick—So far as I am concerned, I don't know whether we have a Treadwell affidavit or not; but if we did I would not be willing at the present time to deliver it to you. [**520**]

Mr. Lewers—Notwithstanding Mr. Mills's statement that he would do so?

Mr. McCormick—I am speaking for myself. Those are my sentiments.

Mr. Mills—I will ask counsel for the Southern Pacific Railroad Company whether he has recently been in conference with the witness J. B. Treadwell, since the last hearing.

Mr. Lewers—Yes. I met him yesterday on the street, and he asked me how we were getting along up here, said he had heard part of the testimony of the first expert offered for the government and that in his opinion this first expert didn't know anything about the Elk Hills. That is the extent of our conversation.

Mr. Mills—You regard that, I suppose, as a very lawyer-like piece of conduct—to testify on curbstone hearsay remark as to the testimony introduced in the case.

Mr. Lewers—Thoroughly warranted by the lawyer-like request or question made by counsel for the government.

CROSS-EXAMINATION OF A. C. VEATCH.

By Mr. Lewers:

Q. How old are you, Mr. Veatch?

A. Thirty-three.

Q. And where were you born?

A. Evansville, Indiana.

Q. And where did you receive your education, in a scientific way?

A. Indiana University. Cornell University.

Q. And you were, were you not, a student under Dr. J. C. Branner?

A. Never.

Q. Under whom were you a student of geology at the [521] Indiana University?

A. J. F. Newsome.

Q. Where is J. F. Newsome now?

A. He is engaged in private work. He has a residence at Palo Alto; and I don't know where he is at the present moment.

Q. And he was connected for a number of years with the department of geology at the Stanford University under Dr. Branner, was he not?

A. Yes sir.

Q. And resigned that position to go into private practice in 1908 or 1909, did he not?

A. I don't know as to the date.

Q. But he is now engaged in the private practice as a consulting geologist?

A. So I understand.

Q. Do you know whether he had ever made any examination of the Elk Hills?

A. No; I do not.

Q. And when you went to Cornell, under whom did you study geology?

A. Professor G. B. Harris, Professor A. C. Dill and Professor R. S. Tarr.

Q. And was your course at Cornell a postgraduate course?

A. No; I had never received the degree. My course at Cornell—I was in the geological seminary, and in that respect was taking postgraduate work, supposed to be restricted to postgraduate students. I may say that with reference to my work in Indiana, I did original field work before I went to the Indiana University, and my meeting with Professor Newsome was purely accidental in many ways. I was intending to do some science work under Professor Eigenmann and happened to step into [**522**] the geologic department and showed Professor Newsome my results in Southern Indiana. That was before I had ever been in the university in geology. And he asked me to take charge of a section in field work. That was my beginning in geology under Professor Newsome.

Q. That is, the charge of the section of students who were doing preliminary or elementary field work?

A. My assistant was a senior in geology in the university.

Q. Now, how long did you continue with that work, or with your work in other respects at the Indiana University?

A. I was on that summer school work, that is, the

Indiana University geological survey, the following fall. And I may say the year preceding that I was teaching physical geology, physics and mathematics in the high school, and I continued teaching that fall and met Professor Newsome again at Indianapolis, at Christmas time, and I read a paper before the Indiana-Academy of Science, and he then offered me work in the laboratory there at the Indiana University which would give me sufficient funds to pay my expenses. I unfortunately did not have the money to go to college. And I then resigned my position in the high school at Rockford, Indiana, and was engaged in the laboratory there that spring. Professor Tarr, at Cornell, wanted some special work done which paid more than the Indiana University, and I thereupon went to Cornell, finding in that way a method to make my way through college. At Cornell, under Professor Tarr, I met Professor Harris and Professor Harris then asked me to go on the Cornell geological survey of the Tertiary. That was in the summer of 1898; and the request coming to him in the fall of 1898 to recommend a man that was competent to take charge of the field work in the Louisiana geological survey, he recommended me. I thereupon became assistant state geologist of Louisiana. [523]

Q. Then how long were you in Cornell in all?

A. At that time I was there three months.

Q. In all, though?

A. Altogether, about two years and a half.

Q. And when did you return to Cornell?

A. I returned to Cornell in 1900.

Q. And what position did you have at Cornell on your return?

A. I was assistant in charge of areal and stratigraphic geology in the summer school of field geology.

Q. What is areal geology?

A. It is the making of maps, showing the surface areas occasioned by formation.

Q. It is not "aerial" then?

A. No; it is not "aerial." Incorrectly stated in the transcript.

Q. And that work in Louisiana prior to your return to Cornell, consisted of what?

A. General examination of the geology of the state and of special areas. There are a number of rather voluminous reports covering that. There is a report of the geological survey of Louisiana for 1899, in which there is a joint paper by Professor Harris and myself on the historical development of the geology of Louisiana and on the general topography of Louisiana. There are detail papers by myself on the Five Islands, which are peculiar uplifts in Southern Louisiana, of the same character in which the oil is found; and in a detailed report on the Freeport area, the northern part of Louisiana, various papers of considerable volume. And the second year's work is represented by another volume which was published in 1902. I may say that on my return to Cornell credit was asked for that [**524**] original field work, and produced a long faculty wrangle, in which part of the faculty held that a baccalaureate degree meant four years' residence in a college and therefore

this could not be counted on the baccalaureate degree, and the conclusion reached finally was that as soon as I got a baccalaureate degree they would credit me with two and a half years on a doctor's degree, that is, permit me to get a bachelor's degree and doctor's degree at the same time.

Q. Well, did you obtain those degrees?

A. No.

Q. Now, in your work during those two years in Louisiana, did you have any field work in connection with oil deposits?

A. No. There are some deposits of oil on some of those Five Islands in Southern Louisiana.

Q. Did you examine them?

A. Yes.

Q. And were they being developed?

A. No.

Q. No practical drilling operations going on?

A. No. There was drilling over near Calcasieu, near the sulphur mine, Sulphur City, which was yielding some oil. I made an examination there.

Q. Well, did you make extensive examination or detailed examination?

A. No; not at Sulphur City. I did at Belle Isle. That is one of the Five Islands.

Q. That is the place, though, where no development had taken place?

A. No; none.

Q. Has any taken place since?

A. There has been drilling; yes. [525]

Q. Any oil found?

A. No; not in commercial quantities.

Q. And you came to the conclusion that it could not be found in commercial quantities there, did you?

A. Yes. The dome there is lifted to the surface and the top is eroded, and you have, as at Beaumont, a central core of salt over which there is a mass of more or less porous gypsum, which contains the oil, and at Belle Isle the uplift is such that that porous cap is eroded and you get a few oil springs along the side, so that the oil has escaped so that there is no large quantity of oil there. At Beaumont it is deeply buried and the top of the dome is not broken.

Q. That is, the oil formation that you found in Louisiana was due to intrusions of salt dikes or dips, was it not?

A. Was due to them?

Q. That is, the formation itself.

A. That is, the deformation there is due to the salt.

Q. And the same thing was true in Texas, was it not?

A. It is, at Beaumont.

Q. Have you any knowledge of any such condition in the formations in California?

A. No.

Q. In what formations, as to their geological period, does the oil occur in Louisiana?

A. It ranges from cretaceous to relatively recent.

Q. About how recent?

A. Why, of the Pliocene and Pleistocene.

Q. Well, do you mean that you find the forma-

tions from which oil is derived as late as the Pleistocene in Louisiana?

A. Find the oil contained in it.

Q. I am not referring to the formations which serve as an [526] oil reservoir, but to the oil-producing formations, the derivative formations.

A. Well, I don't know what is the oil-producing formations in Louisiana and Texas. I wish I did. I only know about the oil-containing reservoirs there. What the source of that oil is I don't know.

Q. It is generally believed, is it not, both in Louisiana and Texas, that the oil-producing formation, derivative formation, is very much older than the oil derivative formations in California?

A. Not very much older. They are, considering the whole geologic time, very close together.

Q. Well, is it not generally believed that they belong to the cretaceous period?

A. Yes, I believe that the source is from the cretaceous.

Q. While those in California belong to the later periods in the Tertiary, do they not?

A. It is generally so considered. But the matter of the age of the source of the oil has no bearing on the economic development of an oil property.

Q. That is your point?

A. Yes. If you take a region, it does not make any difference whether your oil is coming from a cretaceous horizon or a Tertiary horizon; if you have a porous bed which contains oil and you can determine the structural position of that porous bed and there is

evidence that that porous bed contains oil, the age of that bed does not affect the question of whether you get oil or not.

Q. Does it affect the question of how much oil you will get?

A. Not necessarily.

Q. Not necessarily; but it may? [527]

A. It may. The conditions in California are peculiarly favorable. That is, regarding the diatomaceous shale as the source of the oil, you can demonstrate the matter very fully and very conclusively.

Q. Well, I shall come to the California conditions in detail later.

A. Let me explain a moment. You take this condition, which happened in some South American work. A man is placed in a region, and the age of the rocks is of scientific interest. But where you find a shale, as I found there, you don't care what the age of that shale is; it does not make any difference for this particular matter of determination of the oil horizon. And you find below that shale a porous recent formation which contains oil in quantities, and you find that porous recent formation in a great many places; you determine the structure and you find that these occur in certain relation to the anticlines, and it shows very fully that those anticlines are excellent oil territory. Now, this happens to be lower cretaceous, but that does not make any difference; that was simply a scientific determination which was of scientific interest. It was of no economic value in that particular development.

Q. Then, in your opinion, so far as determining the occurrence of oil and the quantity of oil that can be developed, it makes no difference whether it is in an old formation or a comparatively recent one? Is that correct?

A. That could be broadly stated in that way. Oil occurs in practically all formations, all periods, except the very oldest—certainly a great deal older than anything in California. It is a matter of physical conditions.

Q. After you had completed your work in Louisiana and returned to Cornell, what was the next occupation that you [**528**] followed?

A. I went to Texas.

Q. When?

A. In 1901.

Q. And what position did you hold in Texas?

A. I was geologist with the Houston Oil Company.

Q. For how long a period?

A. Oh, eight or nine months. Less than a year.

Q. During that period what were you doing?

A. I was making investigations of the structure of the region—general region of eastern Texas and western Louisiana.

Q. What amount of territory did you cover in your examination?

A. Well, it covered different places in the area extending over the eastern quarter of Texas and occasional trips into western Louisiana. I was employed there specially because of my detailed knowl-

edge of the stratigraphy in Louisiana. It was a matter of stratigraphic geology. The training of a person in stratigraphic lines bears on his competency to determine the oil formations.

Q. I was not asking as to your competency; I was asking what you did in Texas, what territory you examined in Texas.

A. It was various portions of the eastern quarter of Texas.

Q. For what purpose?

A. For the determination of the oil value of the land, for the special information of my immediate chief there as to the geological relations, formations, in there.

Q. Did you have charge, in any way, during that period, of any actual oil development?

A. No.

Q. Did you locate any wells?

A. No. [529]

Q. And did you have anything to do with the sinking of any wells?

A. No.

Q. Did you examine well logs?

A. Yes; a great many of them.

Q. For the purpose of determining the strata?

A. Yes.

Q. But you were not connected with the practical end or operating end of the oil business during that period?

A. No.

Q. Your work, then, was a general geological

investigation of conditions in various portions of Texas, was it?

A. Yes, with detailed investigations in certain localities.

Q. And did you, during those investigations or as the result of them, denote any territory that in your opinion should be developed?

A. Yes.

Q. In how many places did you indicate what you regarded as profitable oil territory?

A. I did in only one.

Q. And where was that?

A. That was over in Louisiana.

Q. You located none, then, in Texas?

A. No. There were a great many wells there in Texas. I advised the drilling of wells near Saratoga.

Q. In Texas?

A. Yes.

Q. Were those wells drilled?

A. I think so.

Q. Do you know?

A. I do not.

Q. Do you know whether they were profitable or not? [530]

A. I have heard they were.

Q. But you took no part in it?

A. No. I left before the work was completed.

Q. Did you advise as to the depth which they should be drilled?

A. No. That is not possible in Texas because of the geologic conditions. In certain regions your

geologic conditions are such that your geologist cannot form an idea.

Q. So, in Texas, where your examinations were made, it was impossible to determine the depth to which the well should go, was it?

A. Yes sir.

Q. What was the reason for that in that particular place?

A. The reason for that is that the sub-structure of the coastal plain of Louisiana and Texas is very irregular and it is masked by a series of very recent deposits which entirely masks the underlying geology. In that respect it differs entirely from the California conditions.

Q. That is, in California there are no overlying deposits which mask the underlying formations?

A. Not in the way they do in Louisiana and Texas.

Q. In not quite the same way, but there are overlying deposits in California which mask the underlying formations, are there not?

A. Not in the way to influence your judgment, that is, to make it impossible to reach a definite conclusion.

Q. That is, you say that in California, notwithstanding these overlying deposits which occur in many places, you can still reach a definite conclusion as to the underlying formations?

A. Yes. I think that it is definite enough to warrant drilling.

Q. Well, are you using that term "definite" in its scientific [**531**] sense or as meaning something that you can guess at?

A. I mean an approximation, reasonable approximation which is the basis of commercial development.

Q. That is, a "reasonable approximation"?

A. Yes.

Q. Then you don't mean that you can definitely locate and determine the position or the condition of the underlying formations in California?

A. You can in some cases.

Q. "In some cases"?

A. Yes sir.

Q. Where they are exposed?

A. Yes.

Q. Or where wells have been sunk through it?

A. It is your geologic exposures, and I have never seen a region in which the geologic exposures are as complete and satisfactory in a great many ways as in these California oil fields.

Q. Well, we will come to that, and find out how much you have seen of that. And that was the extent of your practical experience in Texas and Louisiana?

A. Yes.

Q. Then, after that where did you go?

A. I was at Cornell for a short period of time, assisting in the preparation of a report on a portion of Louisiana, and then I returned to Louisiana as Professor of Geology in the state university.

Q. And how long did you continue there?

A. I was there about three or four months.

Q. And resigned?

A. Yes.

Q. And where did you go then? [532]

A. I was working for the United States Geological Survey in northern Louisiana and southern Arkansas.

Q. In what capacity?

A. As a geologist investigating underground water reservoirs. And at that time I located the Caddo oil territory.

Q. Where?

A. Northwestern Louisiana.

Q. And that was in what year?

A. 1902.

Q. And you at that time had some practical experience, did you, in the sinking of wells?

A. No purely geologic. It was my deduction regarding the presence of oil there.

Q. Your location of the oil area at the Caddo field, then, was purely a geologic matter based on structure?

A. In that region in northern Louisiana the structure is much better exposed than it is in southern Louisiana; and they have in there analogous domes, structurally, to those which occur in southern Louisiana, where the surface exposures are such that you can work out the structure. It is not buried by a great mass of deposits, and I found there a case of a dome of which the top had been eroded and represented a place where they could drill for oil or gas. There are two or three domes in that region where the top is entirely gone and the oil has leaked and dissipated, and those I do not consider favorable sites.

Q. And were you the pioneer in that district?

A. I sank no wells there. I recommended the sinking of them.

Q. To whom did you recommend it?

A. To Mr. Glassell.

Q. And did he sink wells there?

A. Yes. [533]

Q. And they were profitable?

A. Yes.

Q. And no wells had been sunk in that vicinity before that time?

A. None at all. That was not thought of as an oil territory.

Q. Until you came in there and saw it?

A. So far as I know.

Q. Well, were not these features of the landscape, the surface indications, and so on, plainly visible for miles?

A. No. The geology there requires very careful work. It differs in that respect very greatly, I think, from your California conditions.

Q. And it was not obvious to anyone except a highly trained specialist in geology?

A. I think so.

Q. And that is the reason why you felt that you were able to discover it and that accounts for your success in that particular instance, is it?

A. Yes.

Q. The dome-like structure that you have referred to was not visible from the surface?

A. Well, it is at the surface, but the exposures are

such that it requires very detailed, careful work to determine it. That is, I mean it was not plainly visible to a man ordinarily walking over it. It would require a geologist—not a casual view of it, but very careful detailed work. It does not stand out, stare you in the face, as the geology does in a great part of the western United States.

Q. And after you had made a careful and detailed examination of the surface, you were able to say in your own mind, were you, that you knew absolutely that underneath that dome was oil [534] in paying quantities?

A. No; not at all.

Q. Then what conclusion did you reach?

A. I reached the conclusion that that was to me valuable oil land, that is, it had a commercial value as oil property.

Q. What do you mean by that?

A. Because of the very great probability of oil occurring there. It is not possible to say certainly that there is oil there, that is, there is oil in commercial quantities. If there is oil in this region, it certainly occurs in that locality, and that is a place where I would certainly advise drilling and where a man would be amply justified in spending money in drilling a well.

Q. That is, you came to the conclusion that if there was oil in that territory, that was the place where it would be found?

A. Yes; and I felt that there probably was oil.

Q. Still, you recognized, didn't you, that the "if" was necessary?

A. Yes. There were no seepages there.

Q. And you would, from the surface indications which you found there and as the result of your careful examination, feel justified in advising an oil operator to prospect that territory?

A. Yes.

Q. In the hope of developing an oil well?

A. Yes.

Q. That is, you thought it was a good prospecting ground, didn't you?

A. Yes; very excellent ground.

Q. And you would not have been greatly surprised, would you, if he had failed to find oil in paying quantities?

A. Yes. I would have been rather surprised if he hadn't got [535] oil or gas.

Q. But I mean in paying quantities.

A. I can't say "in paying quantities."

Q. That is, the failure to get it in paying quantities would not have surprised you, as a scientific proposition?

A. No; not from the evidence that existed there.

Q. That is, you realized, in advising the prospecting of that particular territory, that there was a chance that oil would be obtained?

A. Yes.

Q. And you also realized, did you not, that even if it were obtained, it might not be in sufficient quantities to warrant the expense of sinking for it?

A. Yes; there is a chance of failure in all business operations.

Q. And in mining operations of any kind that chance of failure is perhaps greater than it is in many other forms of business enterprise, is it not?

A. Well, with certain conditions in coal and oil I don't think they are any greater.

Q. You think that with coal and oil it is practically a cinch, is it?

A. That is, it offers a greater chance of return than any metal mining, and the danger of failure there is no greater than in a great many business operations.

Q. That is, there are many business operations which are essentially, in their nature, gambles?

A. No—that is, unless you include everything.

Q. Well, I do include everything.

A. Now, to illustrate, when I was in the high school I was once employed by a large produce house as stenographer and bookkeeper, and what not, or assistant, and I frequently remember [**536**] of the company buying potatoes and the price of potatoes went down and they lost money on those potatoes. When they bought those potatoes they must reasonably have felt sure they were going to make money on them; but there was a reasonable business risk, it was a good business prospect to buy those potatoes.

Q. Your employers were the kind that would not take a chance but were betting on a sure thing?

A. No; it was a commercial proposition. You needed potatoes and bought potatoes according to

your very best information, to the best advantage in the market. If you lost your guess on that you lost on the sale of the potatoes.

Q. Did you ever know of your employers, during that period, endeavoring to buy potatoes at some place and discovering there were not any there?

A. Endeavoring to buy potatoes—

Q. —at some particular place and discovering that there were no potatoes there?

A. I don't know that I have.

Q. Would not that be more nearly a parallel with your oil venture?

A. No; I don't think it would. It is a business risk.

Q. When they bought those potatoes, they knew there were potatoes, didn't they?

A. Yes; and when a man takes, on the advice of a competent geologist, oil land, he has a reasonable prospect of success.

Q. And a fair chance of failure?

A. As he does with the potatoes.

Q. Just as, if he bought the crop of potatoes to be raised upon a particular piece of ground two years hence, he would have a reasonable prospect of getting his potatoes and a fair chance of their never being planted?

A. Yes. There brings in an important element, of the com[537]petency of the man who plants the potato crop, in which I think you will find another parallel.

Q. And in neither case would it be a certainty?

A. No; no. A man can secure another to get potato land, but he can't guarantee to the man who buys it that he will get a good crop of potatoes off of it. That is, he cannot if he is an honest man.

Q. Nor can he guarantee that there will be a valuable crop of potatoes on that land the next year?

A. No; but it is a good business proposition to buy it.

Q. In other words, it is good business to take a chance?

A. You take a chance in any business, practically.

Q. Now, did you locate any other oil property in either Louisiana or Texas after you were Professor of Geology of Louisiana?

A. No.

Q. Then your next experience, in the practical way, was in South America, was it?

A. All my work on the geological survey was in stratigraphic geology, and that is the essence of the determination from the geologic standpoint of the matter of oil.

Q. But I am asking you where your next practical experience where you were hunting for oil for somebody was.

A. If you will pardon me a moment, that work was primarily in underground water.

Q. I am asking for oil.

A. Yes; I am coming to that. In coal and in oil in Wyoming.

Q. Were you employed by any individual during your Wyoming work?

A. Oh, no; I was in the employ of the government.

Q. But the question is, where was your next practical work in the oil fields as a representative of any person interested in [538] the development?

A. It was necessarily after I left the Geological Survey, because I could not—

Q. Well, when was it and where was it?

A. In Trinidad and Venezuela.

Q. In connection with oil?

A. Yes.

Q. And during how long a period were you there?

A. About a year.

Q. And you were employed by whom?

A. By the General Asphalt Company.

Q. And did you, during that period, locate any wells?

A. Yes.

Q. And did you have any experience with the practical drilling of those wells?

A. No.

Q. That was in charge of other persons?

A. Yes.

Q. And what depth were those wells?

A. Those were all under fifteen hundred feet.

Q. And those were successful?

A. No; not altogether.

Q. Why not?

A. In one case the drillers reported no oil at all, and the oil commenced to flow, subsequently, between the ten and twelve inch casing at the rate of about two thousand barrels per day but it choked in there

from sand. There was a case in which the driller had passed the sand entirely. That well has never been finished to production, so far as I know but that is a mechanical feature which I don't pretend to know anything about.

Q. And that indicated the discovery of oil at what depth?

A. That was down about seven hundred feet. [539]

Q. They had gone by it?

A. Yes.

Q. Now, how about the other wells?

A. The other wells, they struck a large oil sand and succeeded in flooding the well with water from above, flooding the oil sand. It is a whole series of bad mechanical features of well drilling.

Q. Still, that could be corrected couldn't it?

A. That I don't know.

Q. It could have been prevented, could it not?

A. I think so.

Q. Well, was there a sufficient test to determine whether that oil sand they struck was productive?

A. Yes.

Q. In large quantities?

A. That was the opinion of the drillers, I mean.

Q. How deep was it?

A. It was about eight hundred feet.

Q. And the water came in and flooded that entire bed of oil sand, did it?

A. No; I don't believe that it did.

Q. Well, what did the water do?

A. It flooded in that well so that you had an emulsion in that well.

Q. Well, I mean the bed exposed in that well was flooded, was it?

A. Yes.

Q. And the well was abandoned, was it?

A. No; they were working on it the last I knew.

Q. That accounts for two of those wells. Were there any really successful wells?

A. No. [540]

Q. What was the matter with the rest of them?

A. All mechanical difficulties with the sand.

Q. With all the rest of them?

A. Yes.

Q. Now, had you advised the persons who employed you that these dangers would be likely to be met with?

A. I advised them not to use a rotary, which was used in a number of cases.

Q. And did you advise them of the danger of flooding?

A. Yes.

Q. And they disregarded your advice?

A. That is a matter purely with the driller. The man who has charge of the actual drilling may be given all the directions possible, and yet that don't control absolutely his operations.

Q. Well, how many of those wells were flooded?

A. That one I spoke of was flooded.

Q. Is that the only one?

A. Yes.

Q. How many wells were there in all?

A. I advised regarding the sinking of four or five wells.

Q. And they did start the four or five wells?

A. Yes.

Q. Now, one of them went too deep, one was flooded. What became of the other three?

A. Two of them got very large supplies of gas, in commercial quantities.

Q. But not oil?

A. Not oil.

Q. Now, how about the other one?

A. And the other one produced for four or five months and then the well choked with the sand. That is a matter of [**541**] mechanical difficulties that I think can be overcome.

Q. Was the gas a matter of mechanical difficulty?

A. No.

Q. How deep were the gas wells?

A. They got the gas at about six or seven hundred feet.

Q. Did they make any effort to go beyond?

A. They were when I left. I think there is oil below them.

Q. How deep did you advise them to go eventually?

A. I advised them not to go any deeper than 1500 feet in that territory.

Q. Why did you give them that advice?

A. Because of the geologic structure of the region. There is a series of irregular oil sands there

which occur through a whole series of beds about 1500 feet thick and when you reach the bottom of that series I thought at the place they were drilling it was not advisable to go deeper. There are some lower oil sands there which are not so persistent.

Q. How do you know the depth of that formation that you have referred to?

A. From calculation of the surface outcroppings.

Q. There were no wells there at all?

A. No.

Q. In the vicinity?

A. No well which was a factor. There was one well there which was about 1200 feet.

Q. Was that producing?

A. That was producing.

Q. And did you have a log of that well?

A. None that was reliable.

Q. You had a log of it?

A. Yes; I had a log of it. [542]

Q. And you used that partially as a basis of your determination, did you not?

A. No.

Q. Why not?

A. Because of the entire inaccuracy of the log so far as I could determine. It was not a good log. And the exposures in the surrounding country were such that you could calculate your thickness there beyond any doubt at all. With a detailed survey there of the whole area the thickness was calculated from three or four different directions by the dip of the rock and all those calculations came within 50 or 60 feet of

each other, which is, I think, definite. To have a 1500-foot strata and your thickness be within 50 feet of that I would call that an accurate determination.

Q. And when you went there there was no oil discovery in that vicinity?

A. There was one well.

Q. And that was producing?

A. Yes.

Q. So that you had the factor of the operation of the drill determined, did you not?

A. Of that well.

Q. That is to say, the well was there and that factor was determined?

A. Yes, the well was there but without that well we could reach the same conclusion.

Q. Well, I am not interested in your conjecture as to what conclusion you would have reached; I am asking you for the data that you had at hand.

A. There is at that place one of the largest seepages in the world.

Q. Was this anywhere in the vicinity of the asphalt seepages? [543]

A. Yes; right near it, right at it.

Q. Now, in that connection, is there any coal there?

A. No, not in that vicinity.

Q. Is there any coal near the Trinidad asphalt?

A. That is the asphalt I am talking of.

Q. There is no coal in that vicinity, you say?

A. No. There is a little impure lignite in one or two places.

Q. Is there not a fair quality of bituminous coal there?

A. No.

Q. Not anywhere in the vicinity?

A. No.

Q. Is it not a fact that near the Trinidad Asphalt Lake, commonly called by that name—

A. Yes.

Q. —there is a deposit of a fair grade of bituminous coal—

A. No; there is not.

Q. Just a moment. —running into the same formation, and practically into the asphalt itself, giving every indication of being continuous with the asphalt?

A. No.

Q. You are quite positive of that?

A. Yes; absolutely. I made the most detailed investigation of that region that has been made. I know absolutely what is there. There is, in one little gully about three miles from the lake, a thin layer of very impure lignite two or three feet thick. It is really simply a black clay. There is more clay and sand in it than any carbonaceous matter. Now, that little deposit plays out within half a mile, and the same horizon, along the coast, is shown by very little stringers. There is nothing there more than three or four feet of bituminous clay. It could not [544] in any place be called a lignite, and that is a far cry from bituminous coal.

Q. Are you acquainted with an English writer,

a geologist in the oil fields, by the name of A. Bebe Thompson?

A. I have never met him. I know some of his works.

Q. He has made some investigation, has he not, of the Trinidad asphalt depositions?

A. I understand so. He has made some detailed investigations down the coast a little way from that.

Q. When you left Venezuela where did you go?

A. I went to Washington.

Q. And resumed your connection with the Government Geological Department?

A. No.

Q. Were you connected with that while you were in Trinidad?

A. I was on the per diem roll that is, I asked to be relieved and it was suggested that inasmuch as my private work was not in the United States I be put on the per diem roll, that that would not conflict with the regulations, that is, employment whenever employed; and when I returned that last connection was severed.

Q. What do you mean by the "per diem roll"?

A. On the survey there are what are known as annual appointments, that is, appointments which yield a yearly salary. Then there are per diem appointments, which maintain your civil service status without actual employment by the government; your compensation is stated as so much per day when actually employed. Now, you can hold such an appointment as that for years and years and never do

a lick of work for the government. It simply maintains your civil service status.

Q. A very convenient arrangement to allow private employment, is it not? [545]

A. Outside of this country. It does not allow it in this country. It was formerly used, as a great many of the per diem appointees did private work in this country up until two or three years ago, that is, up until the time of the present Director of the Survey, and he held that that was in violation of the spirit of the act creating the Geological Survey, which practically prohibits private work in the United States, and he called upon all those per diem people to either declare that they would not do private work in the United States or to resign, and the great majority of them resigned.

Q. Now, it was before you went to South America that you made your examination for the government of certain oil lands in Wyoming, was it not?

A. Yes.

Q. And you have embodied the results of that examination in what is known as Professional Paper No. 56, have you not?

A. Yes.

Q. Now, during that examination, did you determine the location of any wells?

A. No.

Q. Did you predict the discovery of oil in any given areas?

A. I said I thought a large area would eventually prove to be oil-bearing in small quantities. The con-

ditions there are such that you will get only small wells. The oil accumulates in small sandstone lenses in the shale which produces it and it is a matter of hitting those lenses and when you do hit them you will get small wells. Now, that territory, of that character, which is not a particularly good oil proposition, extends for a great many miles through that country and is evidenced by a number of seepages. That belt is 200 miles long, probably, and I expect to see that country developed some day to an extensive field.

Q. But so far it has not proved a productive field? [546]

A. There is a small production there. The disadvantage of operating at that point is that it lies in the center of the continent, it is dependent entirely upon the good graces of the Union Pacific and the Southern Pacific to get to the coast; and the cost of shipping, cost of transportation, is such that it is not an attractive field in any way.

Q. There is no immediate market for the oil there?

A. No, that is a sparsely settled region. There has a small refinery been erected there and they are producing some oil, after long and painful negotiations, I am informed, with the railroad.

Q. In fact, you feel that the attitude of the railroad in connection with that oil country in Wyoming has been entirely unfair?

A. No, not entirely so, that is, the distance is very great and the cost of hauling would be very great, so

that on the point of the lowered cost of charge it is fair, but on the point that they can ship from New York to San Francisco by rail cheaper than from Evanston, Wyoming, by rail is unfair.

Q. And you have also the full conviction that the railroad, the Union Pacific in particular, was unfair to the early locators in there on that oil territory?

A. No; I only know of one case, the case of one section, at Spring Valley, in which there was both coal and oil. Oil was discovered on the land before the land was patented, and the question then, since coal was given to the railroad, was to me simply one of relative worth—whether it was worth more for coal or for oil—and I think that particular tract is worth more for coal than it is for oil.

Q. Did you think so at the time?

A. Yes.

Q. There was a contest, was there not?

A. Yes. [547]

Q. In which you were interested to determine—

A. No; that contest occurred—I knew nothing about it—I read the record of the contest after the contest was over.

Q. And did it not occur to you that the failure to develop the oil territory in portions of Wyoming was due to the discrimination of the railroad in making it expensive to bring in supplies to the oil drillers?

A. Yes, that was the common report in there, and there seemed to me, from what I could learn at that time, to be something in it. I didn't go into it exhaustively.

Q. You merely took it as hearsay?

A. That was the statement of the people shipping in.

Q. And after that contest was settled you were informed that the rates improved, were you?

A. Yes.

Q. But you didn't know anything about it?

A. No; I know nothing about it.

Q. And yet you thought that of sufficient importance to incorporate in your Professional Paper No. 56 in the form of an innuendo against the Union Pacific, did you not?

A. I would not call it so. I don't remember just the statement in there. It has been some years since that was written. But I wrote exactly what I thought.

Q. And you had no feeling against the railroad company in writing what you thought upon that occasion?

A. Why, I would have no reason to have feeling against the railroad company there. They helped me in a great many ways.

Q. Then you do have no feeling against the railroad company?

A. No. I stated that merely as what seemed to me to be a fair statement.

Q. And did you at that time consider that in making an official scientific report it was proper to include therein purely [548] hearsay matters of that kind that you had not verified and did not know were true?

A. I stated that as the report, and I think it is due to anyone who is going in there to invest in that oil field—and supposedly this report would assist in the development of that region or there would be no reason for preparing it—that they should be forewarned of that condition and to investigate it. If it was not true they could go in; if it was true I should say they should keep out. But a man who reads that report, without knowing anything about the region should carefully investigate that point before he starts drilling in that region.

Q. Why didn't you say in your report that it was merely a rumor that deserved investigation instead of stating it as a fact?

A. Now, how is that stated? Have you the exact statement?

Q. I haven't it here. I would like to have you look that up. Have you that paper here?

A. Yes; I have the paper here.

Q. No. 56?

A. Yes.

Q. Kindly hand it to me. (Witness hands paper to counsel) That is the one.

A. The statement is this: "The effect of this order was, on the one hand, to stimulate prospectors to attempt to develop this field, and on the other, it is claimed, to make the Union Pacific Railroad Company hinder the development in such ways as it might, being the only line of transportation in this region. Certain cases affecting sec. 23, T. 15 N., R. 118 W., and sec. 33, T. 14 N., R. 119 W., were heard

before a special examiner in the district land office August 23 and 25, 1904, and decision was rendered that these tracts were not "known mineral lands" and that patent should be issued to the Union Pacific Railway in accordance [**549**] with the terms of its land grant. All the Union Pacific lands are now patented, and with the termination of this land contest it is stated that the railroad has offered freight facilities which will materially aid in the development of the field." I think that is an entirely fair statement.

Q. Now, what was this order that was referred to in that?

Mr. McCormick—I suggest, for the purpose of the record, that you describe the pamphlet from which you are reading, and the pages.

A. The extract just read is from page 142 of Professional Paper 56, published by the United States Geological Survey. Now, on page 141 is this statement: "In August, 1900, the Union Pacific Railroad Company began a water well at Spring Valley, Wyo., and on October 14, 1900, at a depth between 491 and 493 feet, struck a sand containing oil of very high grade. Oil of a similar high grade was struck again in December between 573 and 581 feet, and the following May between 1,148 and 1,170 feet.

Intense excitement followed this find, which appears to have lost nothing in magnitude as the news spread. The whole country was soon staked out with petroleum claims under the placer mining laws. The greater part of these claims were purely speculative,

the claimants generally having neither the intention nor ability to develop them. The lands staked were of two types—unoccupied Government land and unpatented odd sections within the limit of the grant made to aid in the construction of the Union Pacific Railroad. This grant, embodied in the acts of July 1, 1862 (12 Stat. L., 489), and July 2, 1864 (13 Stat. L., 356), gave the Union Pacific all the odd-numbered sections of the public lands within certain prescribed limits; but mineral lands other than coal and iron were expressly excepted from its operations. [550]

The section on which the Spring Valley well was drilled happened to be an unpatented odd section, and it was therefore located by several claimants, who assumed that the oil discovered in the Union Pacific well satisfied the law in respect to the discovery required for each locator. The Union Pacific Coal Company had opened a large coal mine on this section and opposed this view of the matter, placing guards about the section to prevent others from prospecting on the land". Now, as to this region in general, the Land Office took the very important step of removing from entry or patent, except under the mining laws, all Government land in certain townships, and refused to issue to the Union Pacific Railroad patents for the unpatented odd sections within the railroad grant within the limits of this reservation until after December 1, 1903, when the issuance of patents was to be determined by the 'then known character of the land.' And that is the order referred to.

Mr. Mills—Now, I object to any further cross-examination along this line as unproductive of any results tending to shed light upon any of the issues in the case.

Q. By Mr. Lewers—And it was your opinion, at that time, from your investigation, that during the period prior to the time when this restriction was to be removed under the order made by the government, the railroad prevented the development of that property?

A. Why, I think that—That was the statement commonly made.

Q. And that is why you made that statement which you have read into the record?

A. I stated that it was so stated—It is not a positive statement of mine—and that rumor had gone out, that they had prevented it; and it was perfectly fair to say that. It is now stated that they would give better rates, which would encourage the development. I think it is fair—on the one hand, when [551] they have lands to acquire, that they would prevent development, but after the acquisition of those lands they would want the freight.

Q. And that was solely your reason for making the statement?

A. I have explained the reason I made it.

Q. And it was not for the purpose of casting an innuendo to the effect that that land was obtained by fraud?

A. No; because that particular land I thought was more valuable for coal. There were other lands

they acquired in there which I think are more valuable for oil than for the coal; and I think it is so recognized by some of the railroad people. I have very good reason to believe so.

Q. But were those lands which you predicted to be very valuable oil lands during your investigation in Wyoming?

A. Was—

Q. Which you have now referred to?

A. Those lands lay in the same belt and were patented before my report or field work.

Q. Were they lands which you examined as to their oil possibilities?

A. Yes.

Q. And did you predict that they would develop oil in paying quantities?

A. No.

Q. How long were you in Wyoming engaged in the examination of oil territory?

A. Three or four months in 1905.

Q. Devoted to the oil work?

A. The report, which involves that oil matter.

Q. That is, it was devoted to the entire examination?

A. Yes, it is necessary to make the entire examination to [552] arrive at the conclusions relative to the oil.

Q. The greater portion of that report is directed to coal, is it not?

A. Yes.

Q. Now, since your visit to South America in a

private capacity, you were connected with the government Geological survey up to what time?

A. I did no work for the Geological Survey until after I went to Venezuela.

Q. That is what I say. Since that time.

A. I have done no work for the Survey at all.

Q. And what has been your employment for the government since that time?

A. The only employment I have had with the government has been with the Department of Justice in connection with this suit.

Q. When were you employed by the Department of Justice?

A. On January 16th.

Q. Of 1912?

A. Yes.

Q. And how long, probably, after your return from Venezuela?

A. Why, weeks or months. I don't remember exactly.

Q. Well, in the interim were you engaged in the examination of oil land anywhere?

A. No.

Q. Now, you were employed by the Department of Justice in this case as a result of your connection with the case of United States against Diamond Coke and Coal Company, were you not?

Mr. McCormick—Objected to as calling for the conclusion of the witness. [553]

A. I don't know as to that.

Q. By Mr. Lewers—You were so informed, were you not?

A. No.

Q. Where were you living at the time when you were employed in this case?

A. At Washington city.

Q. Did you there maintain an office as a consulting geologist?

A. Yes.

Q. And you were sent from there and reached Los Angeles or California when?

Whereupon the further taking of testimony herein was adjourned until Monday, May 13th, 1912, at 10 o'clock, A. M., at the same place.

On Monday, May 13, 1912, at 10 o'clock A. M., the further taking of testimony herein was resumed pursuant to the adjournment.

(The last question asked Saturday, May 11, 1912, before the adjournment, was read by the reporter.)

A. In the latter part of January.

Q. By Mr. Lewers—1912?

A. Yes.

Q. Now, Mr. Veatch, by whom were you employed in Washington to come to California in connection with this case?

A. By the Attorney-General.

Q. Personally?

A. No. I had a letter from him.

Q. And have you that letter?

A. No. [554]

Q. Were the terms of your employment and your instructions all embraced in written form?

A. Yes. I should state so, in a general way.

Q. Did you have any oral instructions as to what you were to do when you reached California?

A. Except that the instructions were general, that I would be under the orders of Mr. Mills.

Q. For what purpose? Did it state?

Mr. Mills—The question is objected to as wholly irrelevant to any of the issues in this case.

A. For the purpose of investigating these lands and advising him regarding scientific matters.

Q. By Mr. Lewers—And anything else?

A. No not that I know of.

Q. And when you reached California to what portion of California did you first come?

A. To Los Angeles.

Q. And you there met Mr. Mills, did you?

A. Yes.

Q. How long were you in Los Angeles before you went to the Elk Hills?

A. Several days.

Q. And during that period that you were in Los Angeles did you make any examination of any affidavits that had been collected in connection with this action?

A. Yes.

Q. How many?

A. I do not remember the number.

Q. Well, as near as you can state, how many?

A. There were probably eight or ten or something of that sort.

Q. Then there were more affidavits than were submitted [555] to me?

A. Yes.

Mr. Mills—The witness stated that on cross-examination Saturday.

Mr. Lewers—I am aware of that. I want to get it beyond any question.

A. And in addition to looking over these affidavits, what other preparation did you make for your trip to the Elk Hills?

A. I looked over a number of reports relating to the field work.

Q. What sort of reports? Made by whom?

A. There was a report by Frank M. Anderson, who was geologist for the Southern Pacific Company, relating to the field work prior to January 1st, 1905, discussing the general character there and giving me some idea of the nature of the work which had been done in that region by the Southern Pacific Company.

Q. What else?

A. The report of Watts—the state report—in 1900.

Q. What else?

A. And I had, of course, Arnold's report, which I had seen before.

Q. You mean Bulletin No. 406?

A. Yes.

Q. Anything else?

A. That is all I recall.

Q. Were there any other reports that you examined? You say that is all that you can recall. Were there any others?

A. You mean at Los Angeles or at any time prior to my going out to the Elk Hills?

Q. At any time prior to your going out to the Elk Hills.

A. I went over a number of reports at Washington. **[556]**

Q. What were they?

A. There was a report by W. L. Watts, in 1894.

Q. That is the one you referred to?

A. No; I referred to the one in 1900, if you will pardon me, which is another report by Watts. The '94 report is entitled "The Gas and Petroleum-yielding Formation of the Central Valley of California, Bulletin of the California State Mining Bureau No. 3." The 1900 report is by W. L. Watts, "Oil and Gas-yielding Formations of California, Bulletin California State Mining Bureau No. 19." And then in Washington I went to the library of Congress and examined maps of this region.

Q. What maps?

A. I found a map by W. Holt,—a map of the states of California and Nevada—published in 1870, showing oil springs in this region. Also, Colton's map—

Q. You say "oil springs in this region." Do you mean the Elk Hills?

A. No, McKittrick, and the front of the range there. And Colton's map of California and Nevada, published in 1875. There was a number of editions of those maps showing the existence of oil springs in this locality.

Q. "In this locality," do you mean in the Elk Hills?

A. No; I mean in the vicinity of the Elk Hills.

Q. Any other bulletins?

A. No.

Q. And from the time you first were employed in connection with this case until you reached your final conclusion, what other bulletins or reports of the conditions prior to January 1, 1905, did you examine besides what you have mentioned?

A. The maps of the developments by Barlow & Hill which was a map published in 1900 or 1901, showing the development at [557] that time, and one published in 1904, showing the development at that time.

Q. You regarded those as accurate?

A. Approximately so. They are entirely accurate for any purpose of basis of any judgment in this case, I think.

Q. Are they official in any sense?

A. Official only in the sense that they were copyrighted.

Q. And they were prepared like any other mining prospectus, were they not?

A. I think not. I think there is a great difference between those and an ordinary prospectus.

Q. You are familiar, are you not, with the method in which maps are prepared in any mining country showing claims and developments, are you not, when those maps are prepared for general sale? You have had those experiences?

A. Yes sir.

Q. And you know, as a matter of fact, that those maps are usually based upon hearsay information at second, third, fourth and fifth-hand, upon approximations and upon vague and indefinite information, in many cases?

Mr. Mills—We object to the question as wholly irrelevant.

A. I think that may be true in certain cases, but I do not think that applies to these Barlow & Hill maps. I think they were prepared with a great amount of care, and they were prepared with much more personal knowledge of the region than is true of the character of maps to which you have referred.

Q. By Mr. Lewers—Then, in referring to the Barlow & Hill maps, you assumed that those were prepared with great care, did you?

A. No, I inquired regarding them.

Q. As the result of your inquiries you assumed that they were prepared with great care? [558]

A. Yes.

Q. And for that reason, as a scientific man, you were willing to accept them as data upon which to base conclusions?

A. Yes.

Q. What else did you examine, if anything, with reference to the conditions prior to January 1, 1905?

A. I had the affidavits which you have.

Q. And also other affidavits?

A. Which did not relate to seepages. I also talked with a number of people who were familiar with the field and had knowledge of the region, particularly with Mr. Youle and with Parker Barrett, and with others.

Q. Will you name all with whom you talked?

A. I cannot do that because I do not remember the names of many of them.

Q. Name as many as you can, Mr. Veatch.

A. Prior to what date?

Q. At any time prior to this trial—prior to the beginning of the taking of testimony in this case.

A. I talked to B. K. Lee and to Silas Drouillard.

Q. Is that all?

A. That is all that I remember distinctly.

Q. Did you talk to Mr. Brisco?

A. Not prior to the beginning of the trial.

Q. Did you talk to Mr. John R. Scupham?

A. Yes.

Q. And where?

A. At Oakland.

Q. Did you make a trip there for the special purpose of seeing him?

A. Yes.

Q. Did you talk to any other individuals in the northern [559] part of California—in the vicinity of San Francisco—in connection with this case?

A. You mean in a general way, or specifically regarding any data in the field?

Q. Either. I mean for the purpose of obtaining any information concerning this case.

Mr. Mills—We object to any general talk by the witness unless it refers to data in the field.

A. No, not for the purpose of obtaining special information.

Q. By Mr. Lewers—And the only person with whom you spoke with reference to definite information in reference to the Elk Hills or that district, in San Francisco, or in the vicinity of San Francisco, was Mr. John R. Scupham, was it?

A. No; I talked to a number of people there, but I was not seeking special information regarding the Elk Hills.

Q. Was he the only one from whom you sought special information?

A. Yes, I should say so. I can give you a list of people there that I talked to, if you wish.

Q. You mean talked to generally?

A. Yes.

Q. I am asking only as to those from whom you sought information concerning the Elk Hills or that territory. Were there any others besides Mr. John R. Scupham?

A. I talked to Dr. Branner. That was not seeking special information regarding that field. I talked also to Mr. Dumble who is chief geologist of the Southern Pacific.

Q. Anyone else?

A. I incidentally met Mr. Gester, but I do not think I mentioned the Elk Hills.

Q. Anybody else?

A. Mr. Taft, who is also a geologist of the Southern Pacific, [560] and a friend of mine.

Q. Anybody else? I am not asking for those whom you met, but merely those with whom you talked concerning this territory for the purpose of getting information, or who furnished you information?

A. I should say that I have given you those who furnished me information. I do not believe those that I last mentioned furnished me information.

Q. On what date did you first go to the Elk Hills?

A. It was the early part of February.

Q. Can you fix the date more closely?

A. It was practically the first day of February.

Q. How long did you remain there?

A. I was in that region about four or five days.

Q. And of that four or five days what portion of the time did you spend in the Elk Hills?

A. Part of one day.

Q. And the rest of the time was spent where?

A. In the region between McKittrick and Sunset.

Q. And then after you had left there where did you go?

A. I do not remember except in a general way. I was in Los Angeles and I was also up in San Francisco.

Q. When did you return to the Elk Hills?

A. I was in the Elk Hills again about the middle of February.

Q. You were there on the 22nd of February, were you not?

A. Yes.

Q. And how long were you on that occasion?

A. Two days.

Q. And that was the time when you took the photographs?

A. Yes; part of them.

Q. Who accompanied you on that trip? [561]

A. Mr. Martin.

Q. Who has testified here?

A. Yes.

Q. Anyone else?

A. No, except the driver.

Q. Who accompanied you on the first trip?

A. Mr. Mills and Mr. Parker Barrett.

Q. Anyone else?

A. Yes; I think there was Hodgkinson.

Q. Who is he?

A. I do not know that.

Q. After your second visit about the 22nd of February, when did you again visit the Elk Hills?

A. The last of February.

Q. How long were you there on that occasion?

A. I was in that region about two days; in the Elk Hills part of one day.

Q. On your second visit how long were you in the Elk Hills?

A. Both days.

Q. Part of two days?

A. Yes.

Q. Then when did you again return to the Elk Hills?

A. That was the last time I have been there.

Q. The end of February?

A. Yes, or first of March.

Q. And you were there in the Elk Hills how long?

A. Part of one day.

Q. Have you been all over the Elk Hills?

A. I have this year been in the western two-thirds only.

Q. In the western two-thirds only?

A. Yes.

Q. Have you been all over Township 30-23? [562]

A. Yes.

Q. In every section?

A. Yes.

Q. And I understand you to say that you never made any particular examination of the formation where the railroad goes through in the western end of the Elk Hills?

A. No.

Q. Merely looked at it as the train went through?

A. Yes.

Q. You did not observe there, did you, whether or not there was any evidence of stratification dipping in different directions?

A. I thought I saw such things. It is very plain

to the north. It is rather obscure to the south. But from observations I made on the south slope of the hills, away from there, I felt sure that my suspicion there that there was a southern dip, was correct.

Q. What was the angle of the dip toward the northeast?

A. I should say it was somewhere between 20 and 35.

Q. Isn't it a fact that at that place a portion of the formation dips at an angle of about 45 degrees to the northeast, and another portion dips with an angle of less than 6 degrees?

A. It is possible.

Q. You didn't see that?

A. I saw a rather steep dip. Now, a 45 degree dip would be a rather steep dip. Between 35 and 45 degrees.

Q. Did you see right beyond that another dip of less than 6 degrees?

A. No, I don't remember seeing it.

Q. And you didn't think it important to go and look, did you, at any time? **[563]**

A. No, I didn't think it was especially important. It is clearly an anticlinal hill there.

Q. Who accompanied you on your fourth trip in there?

A. Dr. Branner.

Q. And on that occasion you went over to the so-called gas blow-out or oil seepage, in Section 32, 30-24, did you not?

A. Yes.

Q. Did you at any time accompany any other geologist except Dr. Branner to the Elk Hills?

A. Yes. I was in there in 1910.

Q. At what time in 1910?

A. In the summer of 1910.

Q. At what time?

A. In the summer.

Q. With whom?

A. Yith Ralph Arnold.

Q. How long were you in there on that occasion?

A. A day or two.

Q. Was that when Mr. Arnold was engaged in the preparation of Bulletin No. 406?

A. No.

Q. It had been prepared, had it?

A. Yes.

Q. What examination did you make on that occasion?

A. The eastern end of the Elk Hills, I was over.

Q. Together with Mr. Arnold?

A. Yes.

Q. Was Mr. Johnson there?

A. No.

Q. Did you at any time accompany any other geologist to the Elk Hills?

A. No. **[564]**

Q. With what geologist (and by the term "geologist" I include those of low and high degree) have you consulted with reference to the Elk Hills or that territory in the vicinity, since you were employed in this case?

A. What do you mean by "consulted?" Do you mean talked to anyone?

Q. No; talked about the country. I don't merely mean with geologists to whom you said good morning.

A. Or if I said the word "Elk Hills" to them? Is that a consultation?

Q. I think you understand what I mean by discussing the character of the Elk Hills, talking or consulting with them with reference to the Elk Hills.

A. I think I have given you all that would come under the term "consultation." I have mentioned the Elk Hills to a number of people.

Q. Then the only persons with whom you have consulted with reference to the Elk Hills would be Mr. Ralph Arnold?

A. No. I did not consult with him regarding the Elk Hills since my employment.

Q. Or Dr. Branner?

A. I think I stated that I did not consult with Mr. Arnold.

Q. Did you consult with Dr. Branner?

A. Yes.

Q. With anybody else?

A. Not that I recall.

Q. Now, have you asked any geologist questions with reference to their knowledge of the Elk Hills, aside from Dr. Branner?

A. I do not believe that I have.

Q. Haven't you discussed the Elk Hills in any

way since your employment in this case with Mr. Ralph Arnold? [565]

A. No.

Q. You have met Mr. Arnold a number of times since your employment?

A. That is right.

Q. And at no time have you referred to the Elk Hills?

A. Not consulting him.

Q. Have you discussed the Elk Hills with him?

A. No. You see there is this point: Mr. Arnold made that examination upon a geological survey; and in such examination he obtained confidential information and the Geological Survey is desirous that that confidential information shall not be infringed in any way, and, in carrying out that policy, I have been very careful not to discuss the matter with him.

Q. Although he had embodied the results of his investigations in Bulletin 406, you regarded it as still confidential?

A. So far as there might be matters that were not in there which might be touched in a discussion with him.

Q. I am not at this moment anxious for your reasons. I merely want to know the facts.

A. I have stated them.

Q. You have not discussed with Mr. Arnold the Elk Hills or the vicinity?

A. I have not.

Q. Now, have you been present at any time when

any discussion took place with reference to the Elk Hills between some geologist and any other individual?

Mr. Mills—Objected to as so indefinite as not to raise any presumption whatever that it relates to any of the issues in this case.

A. I don't quite understand your question.

Q. By Mr. Lewers—In other words, have you been present in the room that is used as an office by Mr. Mills during the **[566]** discussion of any geologist concerning the Elk Hills?

A. Yes.

Q. With what geologist?

A. Dr. Branner.

Q. Anyone else?

A. Mr. Martin.

Q. Anyone else?

A. I have been there a great deal.

Q. Were you present at any time during the discussion with Mr. Williams of the Associated Oil Company?

A. Yes, at part of the discussion, I think, I was there.

Q. Anyone else whom you would call a geologist?

A. I would call Mr. Youle a geologist.

Q. You were present during the discussions with him?

A. Some of them. I don't know how many were held. I was there part of the time.

Q. Anyone else? You have already testified with reference to Mr. Youle.

A. You mean with regard to some one that I have not testified to?

Q. Yes.

A. I do not recall of any.

Q. Now, since the time you were employed in connection with this case you have devoted practically all of your time to this case, have you not?

A. Yes.

Q. That is, from some time about the middle of January of this year?

A. Yes.

Q. And during all of that peirod you have been in the Elk Hills how many days in all?

A. In the Elk Hills proper about four days; in that region [567] somewhat longer.

Q. And in any of the oil fields how much have you been?

A. Possibly two weeks.

Q. That is, including the time in the Elk Hills?

A. Yes.

Q. And the total time that you have spent in actual field work in the oil fields was possibly about two weeks?

A. Yes.

Q. And what have you been doing the rest of the time in connection with this case?

Mr. Mills—That is objected to as immaterial and insulting.

Mr. Lewers—It is not intended to be insulting. I cannot see how counsel can get any such meaning.

A. I was in the hospital part of the time, if that is of interest to you. I cannot see how it is.

Q. Yes, it is. I merely want to know how long a time it was.

A. A week or two or something of that sort.

Q. I assume from your former statement that you devoted practically all of your time. So, if there is any time that you were not able to devote to your work, I am anxious to know what it was. Was there any other time aside from the time you were in the hospital?

A. Yes, there were several days that I was discussing other matters entirely, possibly covering two or three weeks.

Q. Then, aside from those periods when you were discussing other matters and for the short period when you were in the hospital, and aside from the two weeks in all that you were actually in the field, what work were you doing in connection with this case?

Mr. Mills—Objected to as immaterial.

A. I think I have stated the work that I have done in this [568] case.

Q. By Mr. Lewers—I think not, Mr. Veatch. Can you not state what work you were doing in connection with this case during the great portion of that time?

A. I have stated that there were investigations in the field. There was the review of the various reports that have been enumerated. There were con-

sultations with various individuals, occupying different times. There was preparation of a short report to Mr. Mills, which has been mentioned before.

Q. Anything else?

A. I think that covers it.

Q. Your field work took three weeks?

A. Yes.

Q. It has been a period of over three months since you were employed in this case?

A. Yes.

Q. What were you doing the rest of the time? Was that devoted entirely to reading these reports and examining these maps to which you have referred?

A. No. I have been a part of the time waiting for the trial to come to issue. I was prepared, so far as what I could do, a long time ago.

Q. Now, Mr. Veatch, did you in any way assist by giving the benefit of your advice in the preparation of this trial?

A. No, I should say not, except to explain to Mr. Mills what the geologic conditions were. We visited the Hills together for the express purpose of my pointing out to him the geologic conditions.

Q. Is that all that you did in the way of preparing for this trial or assisting in its preparation?

Mr. Mills—Objected to as immaterial.

A. I should say so. **[569]**

Q. By Mr. Lewers—Did you not consult with and interview different witnesses?

A. None except Mr. Scupham, and Mr. Youle I saw. I have been present when other witnesses have been interviewed on a number of occasions.

Q. You went to San Francisco to interview Mr. Scupham in connection with this case?

A. No; I was at San Francisco and it was suggested that he was there, and I was asked to call on him.

Q. And you did so?

A. I did so.

Q. Did you interview any other witnesses who have appeared on the stand here beside Mr. Youle and Mr. Scupham?

A. I interviewed Parker Barrett, as I have stated.

Q. Any others?

Mr. Mills—Objected to as immaterial.

A. No. I should not say that I interviewed them.

Q. By Mr. Lewers—Did you not talk to quite a considerable number of witnesses before they went on the stand to testify?

A. No.

Q. Were you not present during the interviews with those witnesses, in which interviews you assisted by means of your suggestions?

A. I asked questions in a number of cases, endeavoring to arrive at the facts in the matter.

Q. Is it not a fact that you were employed in this case for the purpose of assisting the attorneys for the government in the prosecution of this action?

A. I think that has been stated.

Q. And in doing so you have given practically all of your time and have rendered such assistance as was within your power? [570]

A. A large part of the time.

Q. And you have frequently contributed assistance to the prosecution in this case by suggestions as to the lines of testimony and questions to be asked witnesses?

Mr. Mills—Oh, all that is objected to as wholly immaterial.

A. How much I have contributed, would not be for me to say; it would be for the attorneys to say whether I contributed or not.

Q. By Mr. Lewers—You have endeavored to contribute to the best of your knowledge?

A. I have endeavored to; yes.

Q. You have sat in this court by the side of the attorneys for the government and during the examination of witnesses have constantly made suggestions as to questions?

A. I frequently made suggestions.

Q. And you have been in this court daily from the time this examination began, have not you?

A. Yes. I think that has been stated before.

Q. And during one of the recesses taken for a few days you accompanied the attorneys for the government on a trip to San Francisco for the purpose of interviewing witnesses there, did you not?

A. No; I did not go for the purpose of interview-

ing witnesses. It was purely a private matter that I went to San Francisco on.

Q. Did you on that trip in any way assist by means of suggestions or by means of actively taking part in interviews with proposed witnesses?

A. No.

Q. You devoted that particular trip entirely to your own private business, did you?

A. No; there was a discussion of the case with Mr. Mills, [571] but there was nothing involved in my interviewing witnesses.

Q. And you have from the beginning taken quite an active interest in this case?

A. I have. I am always interested in anything in which I am employed.

Q. And you have the same interest, have you not, in your own mind, Mr. Veatch, that an attorney prosecuting your end of the case would have?

A. No, I do not think that I have. It is purely—

Q. Do you think—

Mr. Mills—Just a moment. Let the witness finish.

A. It is purely a matter to me of what is right. I am convinced in my own mind from my knowledge of the geologists of the Southern Pacific that they knew and could not help but know from their examination in that region, that this Elk Hills territory was good oil land.

Q. By Mr. Lewers—And you are very firmly convinced in your own mind, then, that they were guilty of deliberate fraud, are you not?

A. Deliberate fraud in what way?

Q. In deceiving the United States government?

A. The fraud may rest with their superiors, and probably does. There can be a superior who stands up—

Q. Will you kindly answer my question?

Mr. Mills—Let the witness conclude.

Mr. Lewers—I desire the answer to be responsive.

A. I am trying to make it as responsive as I can.

Q. If you will listen to the question—

Mr. Mills—I object to your interrupting him again in this way. He has a right to conclude his answer.

A. Not necessarily so, for this reason: It is possible with a large organization of that kind to have those at the top [572] gather information from one side which is definite that that is good mineral land, and to then pull the string in another direction and have that land selected by some one else. To say that the geologist who reports that to be mineral land is guilty of fraud, I do not think necessarily follows. He reported what was the truth and the fact.

Q. By Mr. Lewers—And you assumed that the geologist of the Southern Pacific Railroad Company has reported as to the character of that territory in the way that you have now stated?

A. I concluded that they knew it was mineral land.

Q. The geologists or employees of the Southern Pacific Railroad Company knew the character of that country?

A. I think so.

Q. You have testified that you examined certain affidavits, certain of which on my demand were furnished me.

Mr. Mills—On your request, you mean, don't you?

Mr. Lewers—No; I will put it the other way.

Mr. Mills—You are trying to be impolite this morning in some way.

Q. By Mr. Lewers—In that connection I will ask you if it did not strike you as somewhat peculiar that the affidavit of Mr. B. K. Lee should state the following: "I know Professor John Owen who was geologist for the Kern T. & O. Company" meaning the Kern Trading & Oil Company, "who came to me in 1903 and made my acquaintance in order that I might show him the section corners in the north end of the McKittrick field. He was at that time examining the land as to the formation for said Company. From that time until December, 1909, I met him frequently." And after having made a sworn affidavit to that effect, he testified as follows with reference to Mr. Owen on Page 303 of the transcript: "Q—Were you acquainted with Mr. Owen during his lifetime—the geologist? A—Yes sir. Q—Whom was he working [573] for at that time? A—He was working for the S. P. Company. For the S. P., I should say. Q—In what capacity? A—Geologist."

A. I think there is no conflict in those statements to the ordinary man, for the—

Q. You assume—

Mr. Mills—Just a moment.

A. —for the reason that I think Mr. Owen stated that he was a geologist for the Southern Pacific, and that he was also consulting geologist for the Kern Trading & Oil Company. I think he held both positions.

Q. By Mr. Lewers—Where did you get that suggestion?

A. He stated that under oath that he was a geologist for the Southern Pacific Railroad Company.

Q. Mr. Owen did?

A. For the Southern Pacific Railroad Company and for the Kern Trading & Oil Company.

Q. Was Mr. Owen under oath in this case or any other case?

A. I can't say that it was in this case.

Q. Who said that?

A. Mr. Owen said that under oath, is what I said.

Q. Where?

A. In a contest proceeding before the General Land Office.

Q. When?

A. In 1907 or '08.

Q. And it did not occur to you that Mr. Lee was referring to a period prior to 1904, did it?

A. It occurred to me in this way: That Mr. Lee is a man that has been in that country for a great many years as an oil operator, and the relation between the Kern Trading & Oil Company and the Southern Pacific Company is one of notorious common knowledge there. Whether that is right or not—

Q. As a scientific man, you accept notorious common knowledge **[574]** as proof of a man's employment, do you?

Mr. Mills—Finish your answer first.

A. I think in matters of that kind it has a very conclusive value.

Q. By Mr. Lewers—Just as it had in the Union Pacific case?

A. In what way?

Q. As it appears in professional paper No. 56?

A. I know in the Union Pacific case, this: That the Union Pacific Coal Company acquired certain lands—coal lands—in which there was no outcropping of coal at the surface. It laid down the dip from the outcrop. They acquired that as agricultural land, the superintendent of the coal company making affidavit that it was non-mineral land. I know that Judge Cornish who was first vice-president of the Harriman system, came to Washington on that matter and made no question of any difference between the Union Pacific Railroad Company and the Union Pacific Coal Company, and that on that occasion Judge Cornish said that he was not a geologist, but that if as a layman he could be convinced that that was coal land, he would reconvey it to the Government, which was done.

Q. What has that got to do with this case?

A. Probably if Judge Cornish were alive, this case would not occur.

Q. You draw that conclusion?

A. Yes; from my opinion of Judge Cornish.

Q. You do not have as good an opinion of the other attorneys in this case?

A. The other attorneys in this case have not come in that manner and said, "If you convince me as an ordinary man that this is coal land,—" I think you might be convinced that this is oil land, just as a fair man. [575]

Q. You think probably the defense in this case is not in the same fair attitude of mind toward your views or the views of the Government as Mr. Cornish was?

A. No, not to my views but to the facts, to the evident facts of the matter.

Q. You see a distinction between your views and the facts?

A. No; it is perfectly good oil land and any geologist would advise its acquisition for that purpose and its development for that purpose.

Q. We will come to that in very specific detail. What other action have you taken or what other assistance have you rendered the prosecution of this case besides what you have already related?

A. I think that covers it.

Q. I will ask you again, is it not a fact, to your knowledge, Mr. Veatch, that you were employed in this case by reason of the result of the case of the United States against the Diamond Coal and Coke Company?

A. No, I should not. I think I was employed

because I had been chairman of the Oil Land Classification Board, and the Coal Land Classification Board of the Survey? I was engaged in private work and had been specially interested for a number of years in the matter of mineral lands in the public domain and the matter of the disposition of those lands.

Q. You did testify as an expert in that case to which I have referred?

A. I did.

Q. And is not your illustration given in connection with this case in your direct examination of the coal outcropping around the side of a valley based upon what was revealed by the testimony in that case?

A. No; that is purely a scientific statement. **[576]**

Q. You perhaps do not refer to what I refer. When you made the statement, Mr. Veatch, that if you had a coal outcropping showing itself around the sides of a valley, that you could from that fact determine that coal existed in commercial quantities underneath the bed of a valley?

A. No; you could determine that that was coal land. I could not guarantee to any man that there would be commercial coal there, but I would say that the possibilities of developing coal were so great that it has a value expressed in dollars as coal land. I would expect that man to make a commercial success. I would advise him on that basis the same as I would on oil land. I would not guarantee that the

oil land was a commercial proposition, but I would say that I believed that it was and that it would justify him in spending his money on the coal field likewise.

Q. I asked you a simple question, and you answered—whether your illustration was based on the Wyoming case, and you said not. Now, I will ask you another question. In the Wyoming case is it not a fact that there was an outcropping very distinctly shown on the ground for the greater portion of its distance—for seven or eight miles—along the side of the valley, dipping at an angle of from fifteen to twenty-seven or thirty degrees toward the west, underneath the floor of the valley, and that that outcrop at one point approached the land in controversy and within a few hundred feet, and that the land furthest removed from that outcrop—by that I mean the land in controversy—was at a distance of about one mile?

A. I think it was more than that, as I remember it. I can check it exactly, if you desire.

Q. Well, for more than a mile? Would it exceed a mile and a half?

Mr. Mills—Just allow me to interpose this objection. [577] You are referring to the Diamond Coal and Coke Company?

Mr. Lewers—I am.

Mr. Mills—That is so far removed from the issues in this case, that I must object to the question because of its utter immateriality and irrelevancy to any of the issues in the case.

A. I would have to check that to make an exact statement.

Q. By Mr. Lewers—What is your recollection?

A. It is probably a couple of miles. Another factor entered in there of importance: That the coal in those farther tracts were about fifty-five hundred feet from the surface, and the deepest mine in that region at that time was about five or six hundred feet.

Q. Did you testify in that case that the coal was fifty-five hundred feet?

A. I think so.

Q. Did you not testify that it was about two thousand feet?

A. As to specific tracts only. The coal varied in depth. I can give you the exact depth at any part of that land if you desire it.

Q. I do not desire that. What I want to know is whether or not in that particular case there did not exist actually developed mines both to the north and south on that outcrop?

A. Yes.

Q. And those had been developed to what distance down the dip?

A. You mean at the time that I examined them or at the time that that land was acquired?

Q. At the time you examined them.

A. It was in the neighborhood of half a mile. I can give you that exactly, if you wish. **[578]**

Q. And it is also a fact, is it not, that at a distance of from between three and four miles to the

east of that outcrop there was another very large lignite deposit?

A. No; there was not.

Q. That is not a fact?

A. No, it is not a fact.

Q. Then, Judge Hook's opinion in that respect wherein he states that there was such a deposit, was in error?

A. If he said to the east of that he is in error.

Q. In what direction was it?

A. West.

Q. It is immaterial as to the direction. What was the distance?

A. It was about six to ten miles. I can give you that exactly. That is simply recollection. I can refer to the maps and give it to you exactly.

Q. At the time when you examined the development of that outcrop that had taken place, there had been work done within two or three feet of the land in controversy at one point?

A. One tract only. There was a great number of tracts scattered over a large area.

Q. If you pay attention to the question. At one point in the land in controversy.

A. Yes, one point of one tract.

Q. And at one point it had approached more or less closely?

Mr. Mills—Further examination on that line is objected to as wholly immaterial.

A. On some tracts it was three or four miles from the land—

Q. By Mr. Lewers—In controversy?

A. Yes sir.

Q. Is it a fact that there was not a portion of that land [579] in controversy that exceeded a mile and a half from the outcrop?

A. Yes, but the mines that you refer to are ten miles apart, and some of them fifteen miles, possibly. The work on the mines could not have approached these places in between, possibly. The land was seven miles from the mines.

Q. Mr. Veatch, if you will pay attention to the question, the question was, was it not a fact that at some portions of the outcrop the development at the time you examined it had approached to within a short distance of the land in controversy?

A. In one tract, yes. That has been testified to. But there were a number of tracts.

Q. And that was all?

A. That is all I can recollect. I can refresh my memory by looking at the map and give you an exact statement, if you desire.

Q. Now, when you stated in your examination that you were acquainted with that portion of the oil fields of California represented by what is known as the McKittrick and Sunset districts, did you mean that you were acquainted as the result of your personal examination?

A. In a general way, yes.

Q. But most of your information was derived from what source?

A. There is a detailed map by Ralph Arnold which I used for the general relations; not for the specific points—

Q. That is, the map accompanying Bulletin 406?

A. —believing that the geology in 1900 or a hundred years previous, or more, was just the same as it is today—

Q. You insist on arguing the matter and I shall be compelled to assume that you are in the position of a partisan. Will you kindly answer my question and refrain from suggesting other matters?

Mr. Mills—I suggest to counsel that he permit the answer [580] to be fully made before he interrupts.

(The reporter reads the question.)

Q. By Mr. Lewers—Is that the map you referred to?

A. Yes.

Q. That map was used by you as a basis for your general examination in that field, was it not?

A. Yes.

Q. Now, you say that your information in a general way or partially was obtained from your personal observation, and you also made use of this map. From what other source did you obtain information concerning that oil district?

A. From the report of Mr. Frank M. Anderson who was—

Q. Covering what territory?

A. —the geologist of the Southern Pacific Company.

Q. Covering what territory?

A. The report is entitled the Mount Diablo Range, or something like that,

Q. Covering what territory?

A. Covering the territory from McKittrick to Coalinga.

Q. And the Elk Hills?

A. No.

Q. Any other bulletin or report?

A. No; not that I recall.

Q. Then your conclusions as to the territory referred to are based upon a partial personal examination and upon a map and, I suppose, the bulletin of Mr. Ralph Arnold?

A. The map.

Q. Just the map?

A. Yes.

Q. And this report of Mr. Frank M. Anderson?

A. Yes; with the statement of seepages and wells that we have discussed before. **[581]**

Q. And in addition to that you say you had in mind in forming your conclusions the various seepages that have been testified to?

A. Yes; I had a portion of them in mind.

Q. And you had obtained some of that information from affidavits?

A. Yes.

Q. Some from personal interviews with witnesses?

A. Yes.

Q. And some from publications?

A. Yes.

Q. And some from personal observations?

A. Yes.

Q. And did you base your conclusions in any way upon this evidence concerning the seepages?

A. Yes.

Q. And did you base your conclusions in any way upon the evidence concerning the seepages in the Elk Hills?

A. That was confirmation of the conclusion reached from the seepages in the outcrop.

Q. Then the evidence concerning the seepages in the Elk Hills would have been unnecessary for the purpose of reaching the conclusion that you did reach?

A. I think so. That is simply confirmation.

Q. And in reaching these conclusions you disregarded, did you not, the testimony of Mr. Jacob Kaerth as to asphaltum reefs in 30-23?

A. I reached that conclusion before I heard that.

Q. You disregarded that testimony, did you not?

A. Yes.

Q. Because you knew it was not true?

A. No; I didn't know that it wasn't true. I knew that [582] you objected to it very strongly, and, in order that there be no point of difference in our view-points, I omitted it. I also omitted other testimony. I omitted the testimony of—

Q. Will you answer my question about Mr. Kaerth? We will come to the other testimony.

Mr. Mills—I object to counsel interrupting the witness all the time when he is concluding his answer.

Mr. Lewers—I shall continue to interrupt when he gets onto matters that are not responsive, because I want to get through with this examination.

A. I wish to say that I omitted the statements of Ira M. Anderson in the same way.

Q. By Mr. Lewers—With reference to the oil indications in 30-23?

A. No; in 30-22, that happened to be.

Q. Did you not disregard both those witnesses in that respect because you knew from your own examination that they were testifying to something that was not true?

A. No; I saw no asphaltum reefs on the land. But Jacob Kaerth also testified to seepages in 17 and in 25 of 30-23, which I regard as entirely probable.

Q. Did you see those?

A. I did not.

Q. You think they are probable, however?

A. They are corroborated by other witnesses. They occur along the axis of the anticline there where it is quite likely that he would find such small seepages.

Q. What other witness corroborates that statement made by Mr. Kaerth and Ira M. Anderson?

A. The Ira M. Anderson testimony is not corroborated. That relates to 30-22.

Q. Is the Jacob Kaerth testimony corroborated?

A. Yes as to 17. There is Captain Frank Barrett's corroboration.

Q. Which you regarded as plentiful?

A. Yes. As to the other portion of Kaerth's testimony relating to 25, Mr. Wagy testified to something that was probably in 26, and those might readily refer to the same locality. One was in the southwest quarter of 25 and the other was possibly in 26, and those could refer to the same point. I may say further, in those small seepages, the conditions by looking at them now, are much poorer than they were before people commenced drilling in the hills. That 26 matter could not be checked as it is now, because there is a great mass of waste oil there and you cannot tell whether it is the waste oil of today or an original seepage.

Q. A great mass of waste oil on Section 26 at the present time, is there?

A. Yes.

Q. And you say that this testimony of Mr. Barret was corroborated by Mr. Wagy?

A. No; that the testimony of Mr. Kaerth regarding 25 was corroborated by Mr. Wagy.

Q. That is in Township 30-23?

A. In 30-23.

Q. Were you not aware that in the affidavit furnished by Mr. J. I. Wagy he stated as follows: "That in 30-23 I never found any asphaltum exudation, but there were gypsum deposits there where I dug down into a gypsum bed where it was in powdered form,

but never knew of any gypsum in this township in the crystalline form, and I am of the opinion there is not gypsum in said township sufficient to make it commercially valuable."

Mr. Mills—What are you reading from?

Mr. Lewers—The affidavit of Mr. J. I. Wagy. [584]

A. I do not see what that has to do with the statement that you refer to. It is not a matter of gypsum.

Q. You don't see that his statement that he found no asphalt indications anywhere in 30-23 has anything to do with your conclusion that he corroborated the other witness?

A. If you look up the record,—I may have incorrectly stated. It is M. S. Wagy that testified to 26.

Q. Have you an affidavit from M. S. Wagy?

A. No; I did not testify that I did.

Q. You did not at any time have an affidavit from M. S. Wagy?

A. This statement is based on the statement in the record, and not the statement of J. I. Wagy.

Q. Just what did you use as the basis of your conclusions concerning the Elk Hills being oil lands, in short form?

A. Along the east flank of the Temblor Range there is a series of porous beds exposed, which can be traced for many miles readily. Along this outcrop or near it where there has been a slight faulting, there are seepages of oil. These seepages extend from below Sunset to north of McKittrick,

showing a persistence of the oil impregnation in those porous beds. These porous beds dip to the eastward or northeastward, toward the San Joaquin Valley, and are interrupted by a number of folds. That is, the gentle slope is interrupted by a number of folds, these folds being of ideal character for oil accumulation. One of these folds is the Elk Hills. It is, broadly speaking, an elongated dome, and from the persistence of the oil along the outcrop as shown by those seepages, and that showing also corroborated by the great number of wells that have been sunk down the dip from this outcrop prior to 1904, indicates to me that the Elk Hills is very good oil land.

Q. Now, specifically, Mr. Veatch, where did you get the in [585] formation about these porous beds?

A. By examination along the outcrop there.

Q. That is based, then, upon your actual observation?

A. And from the description of the material lying there. That is, the upper part of those beds above the diatomaceous shale. There is a general description of that in Anderson's report—Frank M. Anderson's.

Q. And where situated?

A. And there is also a description in the report by Arnold.

Q. Did you disregard Arnold's description?

A. No.

Q. Where did you get your information concerning the dip at the various points?

A. You mean the general dip to the valley?

Q. Yes.

A. I observed that myself.

Q. And you determined the dip of the formation which you regarded as carrying the oil or producing the oil from your own observation on the ground?

A. I did of the dip of the formation through the valley, yes.

Q. And in reaching your conclusion as to that, you relied on nothing except your observation?

A. No, but I should think it was sufficient.

Q. I want to know as a fact did you rely on anything else in reaching your conclusion as to the dip toward the San Joaquin Valley of these formations?

A. I had the Arnold map.

Q. And did you disregard what was said on the Arnold map?

A. Not in general. I might in detail.

Q. That is, you disagreed with it in some respects?

A. In minor respects, yes. I think it is a correct [586] general picture of the region. It does not pretend to be a final map of the region. It is merely a preliminary map.

Q. And do you pretend to have made a final determination of the dip of that region?

A. No.

Q. Your observation was merely cursory?

A. It was a matter of examination to determine whether the Elk Hills were oil lands, and that was sufficient to do that.

Q. Your examination was merely a preliminary and cursory one as geological examinations go?

A. It was certainly not a detailed one. That is, of the whole region.

Q. Now, Mr. Veatch, where did you get your information concerning the slight faulting in the McKittrick fields which you have referred to?

A. I was over the McKittrick field there. It shows a broken structure. It was evident in passing through. I did not work out the details.

Q. Would you say it was slightly faulted or greatly faulted?

A. My impressions of the McKittrick is that it was rather badly faulted.

Q. Now, passing to the southeast of McKittrick, did you observe the existence of any faults down the dip, or the non-existence of any?

A. I followed down that range of hills in order to satisfy myself whether or not those beds continued into the Elk Hills, whether there was any interruption of the structure between the two; and I endeavored at the same time to reach some approximate idea regarding the depth, that being information which was plainly visible prior to 1904. [587]

Q. Then you did determine, did you,—and that was the question, Mr. Veatch,—that there were no faults in the front to the southeast of McKittrick?

A. To the southeast?

Q. Yes.

A. Just what place?

Q. In any portion of the country that you examined there.

A. There are some faults near McKittrick south and southeast of McKittrick.

Q. Going further south and getting opposite the Elk Hills proper, was there any fault?

A. There is minor faulting.

Q. Did you determine that there was nothing but minor faulting?

A. That was my opinion.

Q. Now, you found oil seepages in the Temblor Range, for what distance?

A. They are shown on this map Exhibit I for about thirty miles, and extend for a still greater distance.

Q. Now, in determining how far the oil horizon extended into the San Joaquin Valley, you inadvertently measured your total distance on the map as fifteen miles. Is that correct?

A. No; I measured it as fifteen inches.

Q. And assumed that that was fifteen miles?

A. Yes, transposing that and stating the matter, I read the fifteen units.

Q. And that threw your oil out into the valley only seven miles and a half?

A. Threw it out seven and a half units.

Q. You testified seven miles and a half?

A. Yes sir; that was an error. I said that the measurement was a matter of fifteen units of one kind, and extending **[588]** from below Sunset to

above McKittrick. Now, half of that distance would include the Elk Hills.

Q. Then you corrected that to thirty miles along the axis and fifteen miles out from the axis?

A. Yes.

Q. Now, wasn't that a determination of the existence of oil at a given distance from the range purely by mechanical means, which permitted you to make that sort of an error in your calculation?

A. Yes. It follows this way: The matter is one of ratio. It is simply to take that map, and the distance is a matter—whatever the true distance on the map is,—which shows on the map, and it shows the proven distance along the outcrop.

Q. Now, if your proven distance along the outcrop instead of being thirty miles had been five miles only, by the same application of the same law of horizon, your oil would extend out into the San Joaquin Valley two miles and a half? Is that a fact?

A. If you can only know—

Q. Will you answer my question?

A. Did I understand you to say that a man knew as a positive fact from the outcrops that there only existed seepages along five miles of territory?

Q. Correct.

A. Then, on that assumption, I would advise simply for that two and a half mile limit as a good proposition. The geologic structure would, however, probably include other areas, and if that geologic structure was very favorable I would also advise drilling there as a less favorable area.

Q. Now, if I understand your position correctly, I understand that if you have indications of the existence of oil along the Temblor Range for a distance of thirty miles, that **[589]** you take the center of that outcrop and, it being the center of the general circle, taking the radius of that as half the distance, you swing that out around into the San Joaquin Valley—

A. And also back into the hills.

Q. —and back into the hills—and assume that the oil will probably be out there that distance?

A. If the geologic structure is favorable. But on that point, it is not favorable to the west of that outcrop for the occurrence of that sand, because the sand is missing and, therefore, that part of the semicircle is valueless. Your geologic conditions show that it is valueless.

Q. In other words, it is the same as if you put a ladle full of batter upon a hot pan on the stove. It would tend to spread out and approximate a circle, unless it ran up against something?

A. Well, that may be used as one illustration. Perhaps I can explain that.

Q. I think I understand it perfectly.

A. I would like to explain it to you further. Suppose you have—this is merely one method of arriving at the probability; there are other methods that are quite sufficient—if you have a series of horizontal beds, we will say two thousand or three thousand feet thick, but the thickness is of minor importance

in this matter, and you dig a trench along those horizontal beds, which trench is thirty miles long, and your trench is three thousand feet deep or more; at the bottom of that trench you find sand with oil. Now, I think that a man would be justified on that showing of oil at the bottom of a trench for thirty miles to go fifteen miles on each side of that trench and regard it as good territory, unless there were geologic conditions to preclude the possibility of the oil extending. That applies here in this way: If those hori- **[590]** -zontal beds are tilted, and you have all the beds removed from one side of the trench, that is to say to the right or left of the trench, there would not be oil on that left-hand side, and that is exactly what occurred here in a general way. The left-hand side of the trench is removed by erosion—all the beds on that side—and you have nothing but the underlying beds below the particular oil horizon that we are discussing. But on the right-hand side, extending off into the side, you have the beds, and on that showing you would be justified in going fifteen miles from the trench as good territory, providing the geologic conditions were favorable.

Q. Can you mention any occasion when Mr. Arnold or any other geologist familiar with California oil shales has enunciated this pancake theory, as I might term it?

A. No. It is a matter of probability in stratified deposits. It is used in the classification of coal lands very extensively.

Q. And you, so far as any publication is concerned, are the pioneer in applying this theory to the California oil fields?

A. I don't know that it has been applied by anyone else. It is merely one way of illustrating the oil value of those hills. It can be demonstrated entirely without that. Being simply a matter of probability, you know by the exposure—

Q. I ask you if any other geologist had used this method. I did not ask for any other methods. I will come to them.

A. You know by the exposure that this is oil-bearing for thirty miles, and that exposure indicates the persistence of the beds off into the valley.

Q. Now, taking your horizon theory or whatever name you may give it, which you admit is new in the oil fields—

A. It is new stated in that way only. I think it is [591] applied practically many times—the fundamental principles.

Q. Very well. If there should exist anywhere in this plain that your oil is going to spread out on, an obstruction, your rule would fail, wouldn't it?

A. That would depend on the method in which your oil sand has been impregnated.

Q. And if there were no water in the formation it would be one thing while if there were plenty of water in the formation it would be another?

A. It depends entirely on the manner in which the oil got into the sand.

Q. That is, this rule would apply provided all the other conditions made it possible in a given case?

A. Provided the geologic conditions are so favorable, and they are so favorable here.

Q. And it is not the rule of the occurrence of oil at all, is it?

A. The rule for the occurrence of oil?

Q. Yes. That it will occur in horizons as you have expressed it,

A. I think that the land within that radius determined in that way would have a greater value than the land lying outside.

Q. That is not the question. Is there after all any such rule as the one that you have laid down for determining the oil character of ground recognized by any geologist or any practical oil man? Isn't that practically an inference of your own?

A. No, I should not say so.

Q. Now, I understand you to say that the conclusion reached by you from these outcrops in the Temblor Range does not require any corroboration. Is that correct?

A. As to the value of the Elk Hills for oil territory? **[592]**

Q. Yes.

A. With the adjoining wells there?

Q. Yes.

A. I think it does not.

Q. You would have been able to reach that con-

clusion in 1904, even if there had not been a well on the Temblor Range?

A. Right.

Q. And would have been able to determine the oil value of the Elk Hills in the absence of any development whatever in the Temblor Range?

A. I should have said they were valuable oil lands. The value would increase when those wells were sunk in the face of the range.

Q. That is, at this time after you have had the benefit of all your studies since 1904 and have read the bulletins and descriptions of the oil fields in California since 1904, you now venture the opinion that in 1904 even without a well in the outcrop or anywhere along there, you would be able to say that the Elk Hills were valuable for oil?

A. Without the knowledge I gained, in 1904, if I had been in that range in 1903 or '04, I would have said then that the Elk Hills were good oil territory.

Q. And with every assurance of being right?

A. I think it is good oil territory, yes.

Q. Why was it when you went into that territory, Mr. Veatch, to make these examinations, that you sought to place yourself in the attitude of a man in 1904? Who told you to do that?

A. Mr. Mills.

Q. And you religiously endeavored to do that in reaching your conclusions?

A. Yes sir.

Q. And the conclusions that you have here stated

in your [593] direct examination were stated from the standpoint of a person's knowledge in 1904?

A. Right.

Q. Then, Mr. Veatch, why was it that you testified as follows on page 1374: "I might state that the testimony which I offered this morning was not the report that has been referred to but was my opinion given after hearing all of the witnesses in court and would be based upon much more information than I had at the time that I wrote that report, which was not put in evidence."

A. It is this: That in reaching that conclusion I had the affidavits which you have there, giving seepages at McKittrick and at Sunset and in between, and the seepages in the Elk Hills. I relied upon that statement and the statement of Mr. Youle and Mr. Barrett regarding seepages in between. Now, there was a great deal more detailed information given in the testimony than was given in those statements. You have a great list of references to these statements. My opinion is this: That with the information that I had the conclusion was justified. With the additional information, it is merely corroboration.

Q. Now, Mr. Veatch, was your direct testimony based upon all of the evidence that has been introduced in this case up to the time that you testified, or was it based upon what a man in 1904 would have known or did know? Which is the fact?

A. The fact is, regarding the seepages—we were

discussing the seepages. If I said the whole testimony, it should be restricted. I was talking about nothing but seepages—seepages known prior to January 1st, 1905.

Q. Then you desire to modify that answer that you gave at the end of your direct examination which I read you?

A. That my conclusion is based upon evidence existing [594] prior—seepages known prior to 1905.

Q. Then your conclusions as you announced them were not based on all the evidence, but were based on what was known in 1904? Is that correct?

A. Based upon the seepages and the wells known —existing, I should say—prior to January 1st, 1905.

Q. Then you did not mean what you said when you replied as follows: "The testimony which I offered this morning was not the report that has been referred to but was my opinion given after hearing all of the witnesses in court and would be based upon much more infomation than I had at the time I wrote that report"?

A. That is a true statement.

Q. Then your opinion and your testimony as given on direct examination prior to the time you made this reply, was based upon all of the evidence received up to that time?

A. All the evidence relating to seepages and to wells.

Q. Did you say seepages when you replied as follows: "The testimony which I offered this morning"

—didn't you mean by that all of the testimony which you had given?

A. All my testimony?

Q. Yes.

A. My conclusions?

Q. Yes.

A. Yes.

Q. Then you did not mean merely the seepages?

A. I did mean the seepages. I have explained that to you several times.

Q. Did you mean anything more than the seepages when you answered it?

A. The seepages and the wells. The information —I wish to explain that in going into that region and investigating **[595]** that region, my whole point has been to place myself in the position that the geologist would have been prior to 1904. The evidence existing on the ground at that time was entirely conclusive.

Q. You have not yet answered my question, and I desire you to pay particular attention to the question. Did you not testify and did you not mean to say in your direct examination that you based your conclusions upon all of the testimony that had been introduced up to the time you testified?

A. What I said is, of course, in evidence there. What I meant, I have explained. It was a matter of the seepages and the wells. That is the only point in the testimony that was of value to me as a geologist in determining what I would have thought.

Q. Did you not reply as follows to this question by Mr. Mills: "Then, in fact, your report is not based upon affidavits and statements? A—It is not; that is, it is not essentially based upon the affidavits. I used some of the affidavits, but if the affidavits had not been at hand and I had simply talked with the witnesses that I did talk to and had the published reports referred to—that is, the field work prior to January 1st, 1905—I would have had sufficient data to form an opinion." Did you so testify?

A. Yes.

Q. Now, the opinion you refer to in that answer was your opinion of the character of the Elk Hills as oil territory?

A. Yes; and in which is naturally understood would be a personal knowledge of the region necessary as to the geologic structure. That, I think, is fairly implied in that answer. If it is not, I should correct it in that respect.

Q. That is, in addition to that, you took into account your personal knowledge of the region? **[596]**

A. Yes.

Q. And did you not take into account in reaching your opinion and conclusion which you testified to everything that you had ever heard or seen in connection with the territory?

A. No.

Q. Do you think, Mr. Veatch, that you have such control over your mental processes that you can eliminate from your mind information that you have

received concerning a particular territory and can form a conclusion utterly regardless of that information?

A. I think that is psychologically possible.

Q. Is it psychologically probable?

A. I think it is. I think it can be done.

Q. Do you believe that in the year 1912 and at a time when it is admitted that the knowledge of the geology of the oil fields is much farther advanced than it was in 1904, a man who has had no experience whatever in California oil fields can go into those fields and as the result of an examination made in 1912, and as the result of reading literature concerning those fields, dating both before 1904 and after 1904, can form a fair opinion that would have been formed by a man in 1904 utterly ignorant of what would thereafter be discovered in the ensuing years?

A. Yes; and in explaining that I can say that my knowledge—my detailed knowledge of the refinements of the geology in this field today is very meager. I have seen it simply in going over it just as I would have seen it in 1904. I have not these detailed well records. I purposely refused to look at the well records, and the great amount of data and information which is available in this field upon which I could predicate a report now, I have not had and do not know of.

Q. In other words, you know very little about the oil [597] territory?

A. I know what a man would know in 1904.

Q. Then a man in 1904 would know very little about it?

A. No; not at all. I say—

Q. Now, answer my question. Isn't it a fact that you know very little about the territory?

A. I should say I know less than other people.

Q. Isn't it a fact that in general you know nothing about California oil conditions?

A. I should say no to that.

Q. You think you know something about it?

A. Certainly I do.

Q. Have you been in Coalinga?

A. I have.

Q. In Kern River?

A. I have.

Q. Have you been in Summerland?

A. I have not.

Q. What other oil fields have you been in?

A. If you ask me I can tell you.

Q. I wish you would tell me. I may not know them all. I do not pretend to be an oil expert.

A. I have examined this region about McKittrick carefully enough to form a correct judgment regarding the value of the Elk Hills. I believe the Elk Hills are valuable oil teritory. I am confident that I would have formed that opinion of them if I had examined that territory in 1903 or '04, and I may add that any competent geologist would have reached the same conclusion at that time.

Q. We will come to that, Mr. Veatch. And, I think, also, that you will add, will you not, that your determination of the oil value of the Elk Hills from the evidence which you have taken [598] into consideration is conclusive?

A. As to the oil land, yes. I think it is oil land.

Q. It is what you would as a scientific man term a conclusive demonstration?

A. It is conclusive in this: That I would advise a person to acquire that for oil land. I would advise him to drill it as oil land. I would not guarantee that he would get a commercial well. I would not guarantee in a case of coal that it was a commercial proposition from the outcrop.

Q. You disagree with Professor Branner in that respect?

A. In what respect?

Q. Coal.

A. No; I think not.

Q. You heard his testimony?

A. I don't know of any contradiction.

Q. You don't know of any contradiction between yourself and Dr. Branner in connection with coal?

A. I think we are in entire accord.

Q. From your recollection of his testimony, you are in entire accord with him?

A. He said this—

Q. I am not asking you that. From your recollection of his testimony, you know of nothing with which you disagree?

A. I agree with him. There is only a possible point in which there could be any suggestion of a disagreement,—that Dr. Branner said that a geologist could calculate the tonnage of coal in land that had not been developed. I simply say to that that the geologist's calculation as to the tonnage of coal is open to error.

Q. And you would disagree with that in that respect?

A. If that is a disagreement, yes.

Q. Did you testify in reply to a question by Mr. Mills: **[599]** "Now, Mr. Veatch, you have spoken of an opinion which you formed of the character of the lands in suit and the adjoining lands in the Elk Hills from certain seepages and from certain other physical evidences of adjoining territory, besides the geological formation of the lands themselves and their relation to these seepages. Did you have, at the time you formed that opinion, all of the seepages which you have collected and given references to in the reporter's transcript at the time you formed that opinion? A—No; only a portion of them. Q—Have these additional seepages tended in any way to change your opinion of the oil character of the lands in suit? A—No; the evidence, without the additions, was to me conclusive, and these would have strengthened it if there had been any doubt." Do you desire to modify that answer?

A. No, I think not.

Q. You think that is a fair statement of your opinion?

A. Yes.

Q. Then in your mind, even without the evidence of these additional seepages, there was absolutely no doubt of the character of the Elk Hills as oil land?

A. With the qualifications that I have made.

Q. Did you put any qualifications in when you stated that it would be conclusive and that there would be no doubt?

A. There is no doubt that it is oil land.

Q. Do you now desire to qualify that?

A. No.

Q. And that conclusion would have been just as certain and just as positive, even if there had been no wells in the Temblor Range or along the Temblor Range in 1904?

A. No; I think I have testified that from those seepages alone I would have concluded that that was oil land.

Q. That is my question. **[600]**

A. With the additions of the wells it increases the value of the oil land.

Q. Did you not testify as follows at page 1354 of the transcript, in answer to this question: "Q—Are there any other evidences which would in any wise corroborate the prediction of oil in the Elk Hills you have stated? A—If any corroboration were needed with regard to the line of evidence outlined, it is found in the seepages in the Buena Vista Hills and in the Elk Hills; and any questions which might arise with regard to the persistence of the oil,

as shown by these seepages, are conclusively set aside by a great series of wells which had been sunk prior to 1904 down the dip from these seepages, and connecting, showing that the seepages represented oil in commercial quantities." You so testified, did you not?

A. If you read it correctly, I did.

Q. I have, Mr. Veatch.

A. You cannot expect me to remember exactly the words I used.

Q. Do you desire to modify that answer at this time?

A. No.

Q. Then, even without the knowledge of any well, your conclusion would have been just the same and without doubt?

A. I said it would be oil land and would advise the acquisition for oil land. I said it would be more valuable as oil land if the wells were sunk. There is a whole series of factors which show to me without any doubt that that is good oil territory.

Q. Then you recognized when you gave your testimony on direct examination and recognize now that it is possibly necessary that there be some drilling to determine whether land is commercially valuable for oil?

A. Oh, yes. **[601]**

Q. And that would be true of the Elk Hills?

A. Yes. Just as in a coal mine you would have to mine your coal before you knew it was commercial.

Q. Did I ask you anything about coal mines?

A. I merely offered that as an explanation.

Q. Now, without any corroboration of the oil wells and seepages, would you have termed the Elk Hills proven oil lands?

A. No.

Q. Did you not testify as follows on page 1353, after explaining what has been termed here the horizon theory—

A. By you.

Q. I believe you called it that. I call it the pancake theory. "Applying this distance of seven and a half miles from the outcrop, it includes the Buena Vista Hills and the Elk Hills— "of course, you mean to correct that to 15 miles—"and the Elk Hills, and the only question which could remain regarding the oil value of the territory outlined in this way would be with respect to the synclinal areas, the valley lying between the Elk Hills and Buena Vista and McKittrick Hills and the valley lying between the Buena Vista Hills and the outcrop along the front of the range. Both the Buena Vista Hills and the Elk Hills fall within the proven area from geologic determinations."

A. Yes.

Q. And you do not desire to modify that?

A. No.

Q. Then after you had examined your seepages in the Temblor Range for that distance of 30 miles, and applied your 15-mile horizon, the only question

that remained as to the oil value would be as to the syncline?

A. That would be oil land. I have testified frequently, and I think you saw the relation, that I would consider that **[602]** oil land and that I would advise a man—that I considered it to be demonstrated geologically that that was a good oil proposition and that I would advise a man to drill it and buy it; but I would not guarantee that he would get commercial oil.

Q. What did you mean by saying that the only question that could remain regarding the oil value of the territory would be in the syncline?

A. Just as I have explained.

Q. You do not mean value, then, when you use that word?

A. I think so. The value of oil land—oil land has value which has no well and which has not been proven in the sense of proving it by a well. But it is a common commercial transaction to sell land and pay an oil-land price for it where there is not a single well on the land and which is not proven in that way.

Q. Sold for speculative purposes?

A. Sold as a business proposition.

Q. When you used the term "value", you meant something upon which you could locate a claim and possibly sell it?

A. No; not locate a claim.

Q. Did you mean when you used the word "value"—

A. A commercial value as an oil proposition.

Q. Oil could be produced in paying quantities?

A. No.

Q. Then you used the word "value" having some other definition in mind, did you?

A. I used it as having a value as oil land,—having a commercial value as an oil property.

Mr. Mills—I object to this and submit that the question has been fully answered by the witness twice.

Mr. Lewers—It is not answered yet.

Q. Did you mean when you used the word "value" in that **[603]** connection at page 1353, that it contained oil enough to add to its richness?

A. I believed it did.

Q. Did you know that it did?

A. No; I did not know that it did. That was my opinion as a geologist.

Q. Could you determine in any way that it contained sufficient oil to add to its richness? That is, that the oil could be extracted at a profit of even one mill on a thousand tons?

A. That cannot be determined.

Q. And when you used the word "value" you didn't mean that?

A. I meant it had value as oil land.

Q. Now, Mr. Veatch, haven't you known a great many lode claims to sell at quite a considerable price per acre that did not have a blessed thing in them?

A. I think that statement is probably true, but

lode mining and oil mining are entirely different things. There is a much greater certainty in a petroleum proposition than there is in any lode mining, as Dr. Branner said, and I agree with him perfectly where he regards coal mining and oil mining the most certain forms of mining. As I explained the other day, I do not regard any business proposition as a certainty.

Q. Then when you all the way through your testimony speak of this being proven oil land or valuable oil land, you nowhere mean to be understood as saying that there is sufficient oil there that it can be extracted with profit?

A. No; I mean that a man would be justified in buying that, perhaps, and paying an enhanced value because of its oil value, and spending money in developing it.

Q. Let me ask you this question: Suppose that you had in the vicinity of a proven oil territory—say near Coalinga—[604] in a section of land in which there was a paying well, and within three-quarters of a mile or less than a mile of that paying well in a formation which was favorable for the accumulation of oil, an oil spring from which there seeped a few drops of oil or petroleum, and the general surrounding geological formation was such as scientific research and practical experience had shown to be likely to yield oil in paying quantities: Would you pronounce that ground or claim where this oil spring was situated, oil land?

A. See if I get your question perfectly. You want to know whether I would consider the land on which the seepage is situated, down the dip from which there is a commercial well, as oil land?

Q. Yes.

A. I would not, on just the simple statement that you make.

Q. Why not?

A. Your seepage is at the point, I assume from your question—it is at the point where the beds come to the surface, and you would then—

Q. No; I have not stated that the beds come to the surface. I said there was an oil spring.

A. I asked you the question if it was down the dip from the spring, and you said it was.

Q. I misunderstood you then. Take the statement as I have given: That there was an oil seepage shown in the land, that the formation was favorable to the development of oil according to scientific research and experience, and that it is within a mile of a paying well, and apparently situated in the same formations.

A. I would have to examine the ground in order to answer that question intelligently.

Q. Are you able to state? [605]

A. It would be possible to have good ground there, and it would also be possible to have ground no good.

Q. Would you from that statement call that oil land?

A. No; I would have to examine the ground. I believe after I examined the ground that I could give you an opinion that would be worth something.

Whereupon the further taking of testimony herein was adjourned until 2:30 o'clock P. M. at the same place.

On Monday, May 13, 1912, at 2:30 o'clock P. M. the further taking of testimony herein was resumed.

By Mr. Lewers:

Q. Suppose that you discovered at the point where this oil spring was, indications of an anticlinal structure, and with favorable indications as to the possibility of the accumulation of oil in case oil were underneath, and all the other conditions remained as I have given. Would you call that valuable oil land?

A. The seepage is on top of the anticline?

Q. Yes; or near the top.

A. And the anticline is not broken?

Q. So far as appears on the surface, no.

A. That is, you restrict that to a definite locality and not to a general proposition?

Q. The question was whether the land where that oil seep was situated and in the vicinity thereof would be called valuable oil land?

A. I would have to examine it to give you an opinion.

Q. Then from the data which I have given you in my question you would be unable to give an opinion as to whether it was val [606] uable oil land?

A. Supposing that your data was absolutely com-

plete, I could give you an opinion. That is, if I would have knowledge of the persistence of porous beds in that region. Can you give me any information?

Q. I have stated that the situation was such that the structure and formation was such that competent, experienced geologists would say that it was favorable for the production of oil in paying quantities at that point.

A. I would have to see the land to give you an opinion.

Q. Then you would not be willing with that amount of information to say that that was valuable oil land?

A. Not unless I checked it myself.

Q. You would necessarily have to check every item that went into the determination of the character of that land for oil values, wouldn't you?

A. That would depend on who was the authority for your statement as to the character of the beds.

Q. I am assuming in my question that it is established by the most competent authority that the structure of the formation is suitable for the storage of oil, and that the nature of the formation indicates that it is favorable for the production of oil in paying quantities.

Mr. Mills—I object to any further cross-examination of a purely speculative character concerning which there is no relation either obvious or apparent to the issues involved in this case.

A. I can answer that directly with regard to the

Elk Hills. There is an anticlinal structure there. There is a seepage.

Q. By Mr. Lewers—I didn't ask you about the Elk Hills, and will you kindly answer my questions and not one that you frame yourself? [607]

A. I can answer it if you will assure me that the conditions are absolutely the same as in the Elk Hills,—making it absolutely parallel to the conditions existing in the Elk Hills.

Q. That is, you are not able to pass any opinion that is not identical with the conditions in the Elk Hills?

A. Not at all. But the conditions that you have mentioned seem to me analagous to the conditions of the Elk Hills, and I merely want to make sure that they are.

Q. Taking just the conditions as I have given them to you, are you able with the data which are contained in my question, assuming that it is all absolutely proven, to determine whether that land in the vicinity of that oil spring is valuable oil land or not?

A. I would have to see it.

Q. You could not determine it from the data contained in my question.

A. I could determine it from complete data.

Q. Answer my question. You cannot determine it from the data which I gave you?

A. I say yes, if the conditions are the same as in the Elk Hills.

Q. That is, you would—

A. I know the conditions in the Elk Hills.

Q. That is, you want something additional to what I have stated in order to determine its mineral value?

A. I explained that.

Q. Answer my question. I don't care for the explanation till I get an answer.

A. I would say that I can answer it if the conditions are the same as in the Elk Hills, namely, that you have an anticlinal structure—

Q. Mr. Veatch, I have given you the conditions and I am not **[608]** proposing any other conditions, and I am not comparing it with the Elk Hills. I am asking you merely this question: With the information and data which I furnished you in those questions, and without additional information and data, can you answer that question as to its oil value?

A. I think I could answer that question.

Q. What is your answer as to its oil value with that data alone?

A. I am not at all sure of the data. You assume that the data are correct. I don't know that they are correct.

Q. But we are assuming that it is correct for the purposes of this question. Now, can you answer it?

A. I can say that taking the conditions which existed in the Elk Hills, which I think are similar to the ones that you frame, namely, that there is a dome-shaped anticlinical fold upon which there is

evidence of a seepage where the beds are slightly cracked, no great faulting, and where in the adjoining region you have a long line of outcropping with seepages and with wells proving the character of the land, I should say that that is oil land.

Q. Mr. Veatch, is it impossible for you in this instance to maintain that necessary control over your mental faculties that will disassociate my statement of facts from any additional facts that you may have in mind concerning the Elk Hills?

Mr. Mills—I object to that question and any further question of that kind because the witness has endeavored repeatedly to give you an answer to your question. Moreover, the questions are wholly irrelevant to any issues in this case, and I insist that counsel shall keep within the issues.

Mr. Lewers—I shall keep after this question till I get an answer one way or the other to my question.

A. You assume—let me get this straight. You assume **[609]** conditions existing at a given locality which I know nothing about. If you ask me a purely hypothetical question without reference to any locality which I have not examined, I can inform you whether the criteria are sufficient.

Q. Now, can you state whether, assuming the conditions which I have outlined in my question are absolutely true, and disassociating those conditions from anything in the Elk Hills, so far as adding any additional data, can you say whether upon the information contained in my question that land was valuable oil land or not?

A. How persistent are the porous beds in your question?

Q. Take my question just as it stands.

Mr. Mills—You had better read the question.

(Question beginning on line 12 page 1530 was read by the reporter.)

A. I would have to have more information.

Q. By Mr. Lewers—Then with that information contained in the question you are unable to determine whether it is oil land or not?

A. Yes; for the reason that I don't know what may be in your mind when you say competent oil men would say that would be good territory.

Q. Then it is necessary, is it not, Mr. Veatch, before you can determine even what you designate as the oil value of land, to have more data than merely seepages and surface structure?

A. No, I think not.

Q. Then you are unwilling to venture any opinion except as to the Elk Hills?

A. No; I said if you would state the conditions fully. I ask for a fuller statement of the conditions, and you referred me to your original question which I think is not complete. **[610]** I cannot predicate an answer on any incomplete state of facts.

Q. Now, you testified that the safety of the conclusion which might be reached by the geologist from the data which you took into consideration depended solely upon the accuracy of the observations. Is that correct?

A. I think that is a large factor.

Q. Does it not depend also very largely upon what he sees?

A. It certainly does; the accuracy of his observations.

Q. However accurate his observations may be, his data may not be sufficient?

A. That is possible.

Q. Now, did you determine from your own investigations in what formation the oil originates in the Devil's Den District to the northwest of McKittrick?

A. No.

Q. Did you determine in what formation the oil originates in the Temblor District to the northwest of McKittrick?

A. No.

Q. Did you determine in what formation the oil originates in the McKittrick District?

A. I believe that it comes from the diatomaceous beds—

Q. I didn't ask you what you believe. Did you determine from any observation of your own?

A. I did not prove it. I think it is a fair deduction. I think no one has proven it.

Q. It comes from what?

A. It is a deduction.

Q. What formation did you say it came from?

A. Diatomaceous shales.

Q. What period?

A. It makes no difference what the period is.

Q. That may be, but I want to know what period it comes from. **[611]**

A. It comes from the diatomaceous shales, in my opinion, that lie west from McKittrick.

Q. But of what period?

A. I think that makes no difference, and I made no determination of the age. There is a series of diatomaceous beds. The conditions with reference to the accumulation of oil would be the same regardless of the age of that bed.

Q. Did you make any determination as to which formation originated the oil southeast of McKittrick District—in the Midway?

A. Yes; I think the diatomaceous shales there also are responsible.

Q. Of what period?

A. The same as in the McKittrick region.

Q. Which period?

A. It is the diatomaceous shales which underlie the oil-beds containing the sands.

Q. But which period?

A. I have stated that makes no difference. We have there in the Temblor Range a series of diatomaceous shales. The age of those diatomaceous shales is of no particular economic importance in the determination of the oil value of lands in that region. Above that diatomaceous series there lies a series of porous beds. The age of those beds that overlie it is immaterial. They are younger than the diatomaceous shales.

Q. Your opinion on that matter is likewise immaterial to me. I want to know if you determined, immaterial or not, what formation at McKittrick originated the oil?

A. The diatomaceous shales, I believe.

Q. Of which period?

A. I did not determine the period. It is, as I say, of no special economic bearing. **[612]**

Q. You did not determine the period?

A. I did not.

Q. And you did not determine the period at any other place?

A. No.

Q. Did you find anything which you determined belonged to what is known as the Vaqueros formation?

A. I found certain beds which have been correlated with the Vaqueros.

Q. And did you find certain beds which have been termed Monterey beds?

A. Yes.

Q. And Santa Margarita beds?

A. No; I found none. I think the correlation of the Santa Margarita is doubtful. But that is mere opinion. The outlines of the geology there in the way to affect the economic factors involved—

Q. Answer my questions and do not volunteer.

Mr. Mills—Let him finish his answer.

Mr. Lewers—He wants to make a legal argument.

A. I am merely explaining it from a purely scien-

tific standpoint. In the Temblor Range there is a series of porous beds which have sometimes been called the Vaqueros. Whether they are Vaqueros or not is a matter of scientific correlation on which there might be differences of opinion. But, whatever they may be called, there is this first member of porous beds. Above that there is a series of diatomaceous shales which may or may not represent the Monterey as it is correlated at other places. Above that is a third member of porous beds. Now, the ages of those have no special economic importance. It is this diatomaceous shale which probably yields the oil. It has the overlying and underlying porous beds which afford a reservoir. **[613]**

Mr. Lewers—Now, I move that the entire latter portion of the answer be stricken out as not responsive.

Q. Mr. Veatch, does the oil producing diatomaceous shale in the Temblor District lie in a Monterey formation or in some other formation?

A. I don't know.

Q. You made no effort to determine?

A. No.

Q. You regarded that as unimportant?

A. Yes.

Q. And is it not a fact that the oil formation in the Temblor District is in the Vaqueros sandstone?

A. I don't know that. I think that it lies in the lower member of these three that I mentioned. You can call them any name you please. If you mean by

your name "Vaqueros" that lower porous bed, I say yes. It is a matter of correlation, as you apply the names. Scientists often discuss the matter at great length without materially changing the actual sequence. It is simply a quibble over names.

Q. Let us take Mr. Arnold's classification contained in Bulletin No. 406. Have you that before you? Is it or is it not a fact that in the Temblor District the oil migrated downward or upward?

A. From what I have read I should say they migrated into the porous beds underlying the diatomaceous shales.

Q. Underlying the Vaqueros or on top of the Vaqueros?

A. I am simply talking about the sequence of beds; not by formation names. The correlation of the Vaqueros involves a large amount of field work, and I am not prepared to say whether that is or is not Vaqueros.

Q. Then you don't know whether the oil migrated downward into the formation underlying the Vaqueros or into the formation **[614]** overlying it?

A. It migrated in both directions. It is in the beds underlying the diatomaceous shales, and also the ones overlying them.

Q. Did you determine that they migrated upwards in the Temblor District—

A. I said I had not been in that district.

Q. As a matter of fact, you don't know, do you?

A. No.

Q. You don't know whether the oil source in the Temblor District was from the lower Vaqueros, the lower Monterey or the upper Monterey, do you?

A. If you will specify that in what natural sequence of beds they are, and leave out the question of names, I think I can express an opinion. It is simply a sequence of beds there, and the question of names which you have involved in the technical description, has no economic bearing.

Q. Is there the same sequence of beds in the Temblor District and in the McKittrick District?

A. I say yes, that general sequence is there. A porous bed below the diatomaceous shales, and a porous bed above the diatomaceous shales. There is also some lower beds I understand.

Q. Wouldn't it be of some importance to you as a geologist to know whether or not the oil shales producing the oil lie underneath the Vaqueros or on top of the Monterey in determining the economic value of any particular piece of land under which those two formations occur?

A. I should say not directly so. For this reason: That in a great many oil accumulations your oil is not in the bed in contact with the source itself,—an entirely different bed—and it is a matter of determination of the persistence and character of this porous layer. The porous layer involved here is the one that lies above a series of diatomaceous shales. **[615]** Whether they are or are not the source of the oil bears only indirectly on it. I think the fact that they

probably are the sources of the oil makes this all the more valuable territory.

Q. Then you did not determine what was the source of the oil at McKittrick?

A. No. I think no one has determined that. It is a matter of belief with me that it comes from those diatomaceous shales.

Q. Would it be a matter of any consequence with you whatever in your conclusions about the Elk Hills, whether the producing formation lay immediately in the overlying McKittrick or was buried under immense thicknesses of shale of an earlier period below?

A. An earlier period than what?

Q. The McKittrick?

A. I have not said it was in the McKittrick. It was in the upper porous layer. If you will refer to it by using that name, I will answer you.

Q. If you will listen to my question: Does it make any difference to you in reaching a determination in what you call the oil value of the Elk Hills whether the diatomaceous shales producing the oil immediately underlies the McKittrick formation or were buried still deeper under an immense thickness of shales of another formation?

A. What do you mean by the McKittrick formation?

Q. Are you not familiar with what is meant by the McKittrick formation?

A. Scientists may differ as to just what "McKit-

trick" includes. And I want to know what you mean by McKittrick.

Q. In these questions I am basing my questions on Mr. Arnold's classification.

A. If Mr. Arnold includes—and that I am not entirely sure **[616]** of from his paper—all the porous beds above the diatomaceous shales in the McKittrick, I should say that I understand that. But if as indicated probably by his separation of the Santa Margarita with a question-mark, in which there is some porous beds, I would include all those porous beds together in my porous layer over the diatomaceous shales. It may be that Arnold intended to exclude from his McKittrick those porous beds which you might call Santa Margarita. If he did, I am using "McKittrick" in a larger sense. I am using it for the topmost of this simple three-part series of the formation in that region.

Q. Now, coming back to your horizon theory. Would it make any difference in your conclusion as to the extent of that horizon if at one end of your outcrop the oil-producing shales belonged to an older formation—say the Tejon formation—and a few miles away the oil-producing shale belonged to a later formation—the Vaqueros; and a few miles away on the same outcrop the oil-producing shale belonged to the Monterey; and these various formations from the indications on the outcrop were each of considerable thickness?

A. I should be unable to answer your question

because I don't know what you mean by "formation." There are various scientific meanings to the word "formation."

Q. Then when I refer to the Monterey formation or to the Tejon formation or to the Vaqueros formation, and I explain to you that I am using those terms on the basis of Mr. Arnold's classification, you don't know what I mean?

A. I will ask you if you use them in their time significance or their formation significance?

Q. I am using them in either significance that you desire.

A. If you use them in the formation significance, all the formations which you mention would be one formation; a formation may go over several periods. [617]

Q. You have made no mistake in that answer?

A. None whatever.

Q. You are perfectly satisfied with it?

A. Yes.

Q. Then if it is used in what you call the formation significance—

A. With some scientists.

Q. —the horizon rule still applies?

A. The horizon rule relates to the porous beds only.

Q. If you had at the Temblor Range an oil-producing shale, an oil-originating shale, in the Vaqueros formation, would you conclude that it would occupy the same plane of horizon in its extensions

underneath the surrounding country as the oil-originating shale in the later Monterey, 20 miles to the south along the Temblor Range?

A. The question is difficult to answer because I don't know what you mean by Vaqueros formation. Do you mean the porous beds below the diatomaceous shales?

Q. I have explained to you, and I am surprised that you do not understand me, Mr. Veatch, that by Vaqueros formation I am using exactly the classification of those formations made by Ralph Arnold. Do you understand his classification?

A. I can't say that I do fully. I have not gone through his report with minute care to work out the refined questions of formation names. The main stratigraphy of this region appeals to me as being very simple, and so far as relates to the economic problems, as I explained before, it consists of three parts: The porous beds below, a great thickness of diatomaceous shales which I regard as probably the source of the oil, and a great series of porous beds above. Now, the oil produced in these diatomaceous shales may accumulate in the porous beds below and may accumulate in the porous beds above. **[618]**

Q. Then if you don't understand Mr. Arnold's classification, let me ask you this question: Is the surface formation at the Temblor Ranch of the same age as the surface formation in the Elk Hills?

A. I don't know.

Q. Is it not a fact that it is a very much earlier age?

A. I made no examination of that region in connection with an examination to determine the value of the Elk Hills, but I can say that I believe that the oil at the Temblor Range, comes from porous beds below this diatomaceous shale series, but I state that simply on information.

Q. You have stated that at numerous times. Can you state from your examination or any information that you have that the oil-producing shales which you find at the Temblor Ranch are of the same age as the oil-producing shales at McKittrick?

A. I should say not, though they probably apply to the same period of time.

Q. That is, they probably belong to the Tertiary, you mean, or do they?

A. I think they do. They may be cretaceous. The matter of whether they are cretaceous or Tertiary, or whether the Monterey shale is cretaceous or Tertiary, makes no difference in the economic conclusion reached.

Q. Suppose that the oil-producing shales at the Temblor Ranch belong to the lower Vaqueros, an earlier formation according to Mr. Arnold's classification than the Monterey, and suppose that that formation which contained the oil was laid down by sedimentation over a large area, extending down beyond the Elk Hills, in the Temblor Ranch, and suppose that later on there were deposited large beds through thousands and thousands of years of the Vaqueros, and then of the Santa Margarita—not of the Santa

Margarita—then of the Monterey, and that in [619] this later Monterey deposit there again occurs a bed of diatomaceous oil-producing shale: Would the same well that tapped the oil shale in the lower Vaqueros drain this other oil shale in the Monterey?

A. You have not explained what portion of the Vaqueros, if at all, this is in. If the Vaqueros is above the sandstone, this shale would belong to something else. Is the Vaqueros a time significance or a formation significance?

Q. The lower shales of the Vaqueros formation —a time significance.

A. You have below the three-part series here another shale?

Q. Yes.

A. I should not say that that shale would affect the upper member of the series, except under very unusual conditions.

Q. Then you have two separate oil sands, one lying above the other, wouldn't you?

A. Yes.

Q. Now, if those should be tilted so that up at the Temblor Ranch the lower one came to the surface and down at the Elk Hills or the McKittrick, I mean, the higher one came to the surface, so that their outcrop was on the same general level, would your oil zone theory apply?

A. With reference to what?

Q. Both of them. Could you lump them together in one determination?

A. You would determine on each sand. You are assuming as a proven fact that the oil comes from these shales. I think that is probably true; but the thing that we are dealing with is the extent and persistence of certain porous beds which are the commercial containers of the oil. If you take at the Temblor Ranch an outcrop of porous sand and you trace that porous sand with a certain persistence, and you find **[620]** that it shows oil springs all along, you would use the same method there and would apply the same method. But when you get up to the upper porous beds, you are dealing with an entirely different porous series. There would be the persistence of that porous series and the oil contents as shown by the oil seepages and springs and the wells drilled prior to a given date, if you want to determine the conclusion which would be reached at a given time.

Q. Then you would have to deal with each period of oil shales by itself?

A. I am dealing only with the containing sands.

Q. Dealing only with the reservoir?

A. Yes.

Q. I am asking you with reference to the oil-producing shales.

A. What do you wish to know about the shales?

Q. This is what I wish to know: If you find indications of oil-producing shales along a distance in line for twenty-five or thirty miles, can you conclude from that that at a distance of fifteen miles to

the side that the same bed of oil-producing shale is existent?

A. It would depend on the stratigraphic conditions which exist there. I should say, taking an application to this matter, that you have this diatomaceous series exposed for many miles along the Temblor Range, and that in my opinion it certainly underlies the Elk Hills.

Q. Now, Mr. Veatch, basing your answer upon all you have read, all you have seen, all that you have heard, will you tell me what is underneath the Elk Hills?

A. I think there is a series of porous beds of this Tertiary class which marks the upper portion of the series; but below that there is a series of diatomaceous beds, and below **[621]** that there is a series of limestone and amorphous sediments which probably belong to the cretaceous and below that probably granite.

Q. Do you know that?

A. You asked me what I believe.

Q. Do you know it, I ask you now?

A. I believe that it is there.

Q. Do you know it?

A. It is a question of how you define "know."

Q. How thick is the overlying McKittrick formation? I am using that term as Mr. Arnold used it in the Elk Hills.

A. I can't answer that because I am not exactly sure what he means by the word "McKittrick." If

you will explain exactly what you mean, I can answer you.

Q. I suggest we take a recess to enable Mr. Veatch to look over Mr. Arnold's book to understand the terms.

Mr. Mills—I would suggest that counsel during the recess occupy his mind by defining exactly what Mr. Arnold means, so that he can intelligently interrogate the witness.

Mr. Lewers—I think I have a very good understanding.

Q. Then you don't understand Mr. Arnold's classification, do you?

A. I am not entirely sure regarding certain of his correlations. It involves a definition of formation names, and the matter of formation names, it is notorious, different people can disagree on. If we get down to the simple question of what the sequence is here, without the question of names,—but call it one, two, three—there would be no room for doubt.

Q. Now, Mr. Veatch, where did you at any point opposite the Elk Hills find any outcrop of diatomaceous shales?

A. I think a number in the McKittrick uplift there.

Q. Is the McKittrick uplift opposite the Elk Hills?

A. I should think so. **[622]**

Q. Is not the McKittrick uplift to the northwest of the Elk Hills?

A. Just what do you mean by "opposite"?

Q. Take the axis of the Elk Hills and run a line parallel to that axis. Will it strike anywhere near McKittrick from the center of that axis?

A. Take the axis of the Elk Hills and run a line parallel to it? You can get an infinite number of parallel lines to it.

Q. Perpendicular.

A. From what point?

Q. From the center of the axis of the Elk Hills.

A. You mean from the center of the Elk Hills? The central point on the axis of the Elk Hills?

Q. Yes.

A. It will strike somewhere near Midway.

Q. Did you find any outcrop of diatomaceous shale near Midway?

A. I think there are in the hills there.

Q. Did you find any?

A. Yes; I was in there. To say positively that there was diatomaceous shale, would require a microscopic observation.

Q. Did you make any?

A. I did not.

Q. Then you don't know whether there is diatomaceous shale there or not?

A. No.

Q. Did you find any diatomaceous shale at McKittrick?

A. What I believed to be.

Q. Did you make any test to determine whether it was or not?

A. No.

Q. Then you don't know whether it was or not?

[623]

A. No.

Q. Didn't it occur to you that in reaching a determination as to the thickness of the outcrop and the character of the shales that a microscopic examination might have some bearing?

A. It would have nothing to do with the thickness of the outcrop.

Q. Did it not occur to you that it might have something to do with the character of the outcrop?

A. No; the character of the outcrop would be the same, whether you made a microscopic examination or not.

Q. You wouldn't know what it was?

A. I might suspect it with a hand lens. I wouldn't know it positively.

Q. Did you suspect it?

A. I think so.

Q. Did you look at it with a hand lens?

A. Yes sir.

Q. And concluded that it was a diatomaceous bed?

A. That was my feeling.

Q. How thick was it?

A. Do you mean the whole series, or at McKittrick, or in the range or where?

Q. From McKittrick southeast.

A. I simply drove into the hills there to get a

general idea of the thickness, and my impression from the sections that I saw was that it was in excess of three thousand feet. I didn't think it was necessary to make a detailed section to determine exactly what the thickness was. I have measured a great many sections and think that I can estimate the thickness without making a detailed observation to approximate the thickness within a reasonable degree.

Q. And you did approximate it to be three thousand feet? [624]

A. Yes; I thought it was in excess of three thousand feet.

Q. What was the direction of the dip?

A. The Temblor Range is badly folded. There are different sections dipping east, different sections dipping west. But taking those sections that were exposed, that was my opinion regarding the general thickness of the series.

Q. I asked what was the dip.

A. I said it was very variable.

Q. Was the dip toward the Elk Hills or away from them?

A. At what point?

Q. At any point along the Temblor Range opposite the Elk Hills.

A. In general it is dipping toward the Elk Hills.

Q. At what angle?

A. It is quite variable. I should say it runs from 10 to 60 degrees.

Q. Did you make any determination of the thickness of the formation overlying this three thousand feet of shale that you found?

A. Yes.

Q. What did you approximate that to be?

A. I thought it was over three thousand feet. Certainly over twenty-five hundred feet.

Q. Now, if that same relative condition continued under the Elk Hills, and if the diatomaceous shale producing the oil is on the lower portion of that shale formation, it would be over six thousand feet below the surface, wouldn't it?

A. Assuming your assumptions to be correct.

Q. Did you make any determination at that time when you placed yourself in the attitude of a man in 1904 as to how deep that man of 1904 would have his client to sink a well?

A. My belief is that it would be over three thousand feet. **[625]**

Q. And he would be still three thousand feet above the oil if it was in the underlying portions of the shale formation?

A. The oil reservoir is not in the shale, as I have explained repeatedly. I would not advise him to drill for the shale. It is in the porous beds overlying the shale.

Q. If it is originated in the shale at the bottom of that 3000-foot section, how would it get into the sands on top of that 3000-foot section?

A. Is that a purely hypothetical question?

Q. I think this is all hypothetical.

A. Just as a matter of hypothesis, if you have a source which is separated from a reservoir by a thickness of bed, the oil could migrate into the porous beds by a faulty condition of the overlying beds. It could migrate into the porous beds by the overlap of the edge of the porous beds onto the lower beds of the series. There are a number of ways in which it could reach that.

Q. Do you know from your observations whether that formation underlying the Elk Hills is faulted?

A. No, but I suspect that there may be minor faults in it.

Q. That is merely suspicion?

A. Based on the general stratigraphy of the condition. I am referring now only to the diatomaceous shales. I do not believe that the porous beds are faulted—the oil reservoir.

Q. You have no way, have you in advance of drilling, to determine the conditions of the underlying shales?

A. You can have an idea of it which I think would be worthy of some consideration by the general geologic conditions of the country. The geologic history of the region would lead you to form certain conclusions.

Q. Do you agree with the theory of Mr. W. E. Youle that the overlying or surface formation near the outcrop at McKittrick is **[626]** much thinner than it is to the northeast of McKittrick?

A. The northeast is a very general feature. But taking near the outcrop of the McKittrick, you would have the McKittrick starting at nothing and gradually increasing in thickness. Now, taking the point where it is nothing, or a thousand feet, would certainly be less than where it is in inbed.

Q. How would you determine that this overlying formation which Mr. Arnold has called McKittrick is three thousand feet thick?

A. By the sections along the southeast of McKittrick.

Q. Have you made any sketch of those sections?

A. No.

Q. Have you made any statement of those sections to show what they are composed of or where they are?

A. Yes; I have a field map that I made at the time.

Q. Now, suppose that instead of the oil being derived from any portion of that shale outcrop which you saw near McKittrick, it were derived from an older and underlying formation. That would add to the distance, would it not, through which the oil would have to percolate to get into the sand beds within reach in the Elk Hills?

A. Yes.

Q. Did you determine whether the oil formation —I mean by that the oil-producing diatomaceous shales—lay in that bed which you estimated was three thousand feet deep, or whether it lay below that?

A. No; I did not.

Q. Could you so determine?

A. Assuming in the first place that the oil comes from the diatomaceous shale, I believe that is correct, and I should say from that that it would come from the whole series of diatomaceous shales. And your whole thickness then would be the source [627] of the oil. The matter involved here is the persistent character of this porous bed.

Q. Then I take it, Mr. Veatch, that you don't know from having seen it anywhere on the ground, what Mr. Arnold calls Monterey shales?

A. I have seen a great many diatomaceous shales there.

Q. Do you know what Mr. Arnold calls diatomaceous shales?

A. I have seen some beds that he has mapped as diatomaceous shales.

Q. Is all diatomaceous shale oil-producing?

A. I do not know that it is.

Q. You know that it is not, don't you?

A. I can imagine conditions.

Q. Under what conditions will diatomaceous shale not produce oil?

A. I don't know. I wish I did.

Q. It is a very common thing to find diatomaceous shale closely resembling what Mr. Arnold calls diatomaceous shale that does not produce oil, is it not?

A. I cannot say that it is a common thing.

Q. Do you know of any instance where such shale occurs that has not produced oil?

A. Not of my own knowledge. I know that there are diatomaceous beds in a great many formations which are not producing oil.

Q. Now, suppose that you had a bed of shale which you claim to be of the thickness which you estimated this shale to be, 3000 feet. Is that shale in the absence of crushing or fracturing pervious for oil through its entire thickness?

A. It might be

Q. Is it ordinarily so?

A. You mean the shales absolutely the same as this material **[628]** in the hills of McKittrick?

Q. Yes.

A. Portions of that are very porous or pervious, I think. There may be portions that are not.

Q. Are there not laminations or layers, if you want to put it that way, occuring in the deposit of shale of that kind that are very hard?

A. They may be very hard and still be pervious.

Q. And they may be hard and impervious?

A. Yes sir.

Q. And they might be soft and still be impervious?

A. Yes. That is, relatively impervious.

Q. Then you would find it necessary, would you not, before you can determine that at a given point or in a given area there existed oil in appreciable quantities, that you have, first, shales which produce oil and, second, a reservoir of some kind connected with those shales in which the oil would pass?

A. Not universally, at all.

Q. What other conditions would you have?

A. You assume that all the oils come from shales, which I am not at all sure is true. You frequently have large oil pools on different parts of the world which are not connected with diatomaceous shale, and in which the source of the oil is very obscure, and in which the economic factors are the determination of the persistence of the porous beds.

Q. I am referring to California and, particularly, to the McKittrick district. Can you answer the question in connection with that?

A. Believing as I do that the oil here is derived from those diatomaceous shales, the thickness of the shales is a measure, in one way, for reaching a conclusion—or a factor, I should say, in reaching a conclusion regarding the oil value **[629]** of the land. In that respect the very great thickness of the diatomaceous shales of this locality is of special importance, assuming as you do that they are the source of the oil.

Q. And assuming also that the entire thickness of the shales produces oil?

A. I think so. It would be most difficult from a scientific standpoint to disprove that any portion did produce oil.

Q. Now, Mr. Veatch, one of the essentials would be some thickness of diatomaceous oil-producing shale, would it not?

A. Under the land or in the neighborhood of the land?

Q. Somewhere.

A. Yes, if the shale is the source of the oil.

Q. Assuming that the shale is the source of the oil, have you determined whether or not underneath the region where the Elk Hills are situated that shale does actually exist?

A. I should say yes, from a geological standpoint.

Q. And you base that opinion upon the fact that you find it over by the Temblor Range?

A. I base it on the persistence of that diatomaceous shale over wide areas, and the geologic conditions so far as you can fix them under which that was deposited. It is inconceivable to me to believe that this shale stops abruptly at that 3000-foot thickness and does not pass under the Elk Hills.

Q. Did you find it anywhere else except at the Temblor Range?

A. It runs along the whole flank there down toward Sunset, and I understand goes beyond and passes around the east side of the valley.

Q. Now, Mr. Veatch, did you find any of that shale except near the Temblor Range?

A. Yes.

Q. Where? **[630]**

A. There are fragments of it all over the Elk Hills.

Q. Pebbles?

A. Yes.

Q. Indicating erosions?

A. Yes.

Q. Did you find any of it in place in the Elk Hills?

A. No.

Q. Or any indications?

A. No.

Q. Now, referring to plate 1 accompanying Mr. Arnold's Bulletin No. 406, you find areas within a short distance from McKittrick to the northwest of McKittrick where the surface formation is of a very much earlier period than these shales which you found, don't you?

A. About eight miles northwest of McKittrick there is an exposure of the underlying bed.

Q. What does that indicate to you as to the history of that country, in that particular spot?

A. It gives me an idea of the sequence of beds and a sequence of formations there which will underlie the Elk Hills.

Q. Why is it that at that point the earlier formation is on the surface?

A. Because of the character of the uplift or erosion.

Q. That is, uplift or erosion, or the two combined?

A. The two combined.

Q. Have you any reason to say, assuming that wide area of this shale were laid down by sedimentation under the whole territory where the Elk Hills are, that there was no erosion there?

A. I should say that there would not be an erosion of the magnitude shown northwest of McKittrick.

Q. Why not?

A. Because that does not lie along the line of greatest **[631]** uplift. That lies over in the area in which there has been less uplifted and much less erosion.

Q. How many uplifts have there been in that country?

A. I don't know.

Q. Do you not know from your reading that there have been at least four?

A. It is possible.

Q. Is it not possible that there was, before the laying down of the later sedimentation now forming the surface of the McKittrick Hills, a very extensive erosion of the shale beds lying under what is now the Elk Hills?

A. There were possibly erosions. I should not say that it was profound erosion. It would probably be minor erosions. The lines of weakness, that is, the lines of uplifting which were done when this land first came above the surface, have persisted as the principal line of uplifting to this day, and, therefore, we would expect to believe that the greatest erosion would occur at the places which were most uplifted in the beginning of this cycle of uplifts.

Q. Can you tell with any degree of accuracy?

A. I think so.

Q. Can you say from your examination of this country or from any information that you have obtained from any source, that the shale beds that you

have assumed originally passed under where the Elk Hills are, have not been eroded through their entire thickness?

A. I think it is very improbable. I do not believe that they have.

Q. But, do you know?

A. Only by the general character of that country. I should say that it is not a good hypothesis.

Q. Taking the Temblor Ranch where the surface exposure, I [632] believe, was very much earlier formation,—what is called by Mr. Arnold the Knoxville-Chico formation—how do you explain the fact that that is at the surface, unless there has been at some time in the history of the country a very considerable erosion?

A. There is, I explained, in that region northwest of McKittrick—that is the earliest lines of weakness, where there has been more erosion than at other places because of the character of the folding. The higher the folding, the greater the erosion.

Q. Does the Temblor Ranch differ in any degree, so far as the line of folding is concerned, from the Elk Hills?

A. Yes; it is a higher uplift.

Q. That is, assuming that there is but one uplift?

A. No; I am assuming that that is the earlier uplift the main line of weakness there lies in a northeast and southwest direction.

Q. Now, suppose at the place where the Elk Hills are narrowest, owing to the natural process of

the folding, there was originally a very considerable fold, long before the time when the McKittrick formation was laid down as a sediment, and the ordinary processes of erosion went on for hundreds of thousands of years. Would it be at all unnatural that those uptilted shale beds would be eroded off down to the underlying Vaqueros and even lower?

A. I do not think that your assumption is sound.

Q. I don't care what you think. Answer my question.

A. I do not think that is probable.

Q. Answer my question.

A. Is it remotely possible, do you mean?

Q. Isn't it—not remotely possible—isn't it probable that if there had been a folding and uplift of those shale beds **[633]** composing what Mr. Arnold has called the Monterey shale, and then a long period of erosion, that that uplift of the shale bed would be eroded possibly through its entire thickness?

A. If we have a great uplift under the Elk Hills, that would be true. But I do not believe there was such an uplift.

Q. You were not there?

A. No.

Q. And you don't know how many uplifts there have been in that territory, do you?

A. I am simply giving you my opinion.

Q. And your opinion is how many uplifts?

A. I said I didn't know.

Q. Does any man know?

A. I think it can be determined.

Q. But you have not determined it?

A. No.

Q. Then you are not in a position to say that there was not such an uplift?

A. I don't say that I don't believe there was such an uplift.

Q. Are you in a position to determine that scientifically?

A. I think the information that I have would warrant the statement that there was not such an uplift—I mean an erosion.

Q. What would you say as to the possibility of that Monterey shale formation, if we call it such, underneath the McKittrick Hills, having been folded and completely turned over?

A. Underneath the McKittrick Hills?

Q. Yes,—putting the Vaqueros on top.

A. I would think that a geologist would have a very vivid imagination to suggest that.

Q. You heard Dr. Branner testify that that was a possibility, did you not?

A. Possibilities come in a matter of one in a thousand. **[634]** There is a possibility scientifically.

Q. And that is a scientific possibility?

A. You can make such an assumption. I simply say I do not believe that that happened.

Q. You heard Dr. Branner say that no man could safely say that it did not happen, in the absence of testing by drilling?

A. I do not understand that he made such a statement.

Q. If he did make that statement you would not agree with him?

A. The matter of absolute determination—

Q. The question is, would you agree with that statement if he did make it?

A. Agree with what statement?

Q. Read the former question. (The reporter reads the question on page 1564, line 22.)

A. I would say that a geologist would say that it probably did not happen and would probably have ample reason for believing it.

Q. You regard Dr. Branner as being a very eminent geologist?

A. Yes sir; I do indeed.

Q. Probably one of the most eminent geologists in the United States, if not the world?

A. Right.

Q. Did you make any determination—

A. If you will pardon me, I believe Dr. Branner stated that he believed there was a great thickness of diatomaceous shales beneath the Elk Hills.

Q. If you will pardon me, I think he did not. Did you make any determination to find out whether or not, if there is any of this diatomaceous shale under the Elk Hills, the stratum is standing on edge or is lying flat?

A. No. **[635]**

Q. Then you don't know?

A. No. I think it is probable that it is slightly eroded underneath there or slightly faulted, all of which, if it were true, would make the Elk Hills all the better territory.

Q. And if not true it would make it all the worse?

A. No, because of the lateral movement of oil. Oil moves through the sand and frequently has moved over great distances in oil fields throughout the world.

Q. Then you have not been able to reach a determination as to either the actual thickness or as to the position of the underlying shale beds in the Elk Hills?

A. I stated that I had an opinion in regard to it.

Q. Have you reached a determination? Do you know how they lie there?

A. I believe they lie in certain positions.

Q. I am not interested in your belief. I want to know if you have determined how they do lie.

A. No.

Q. Do you know that there are any shale beds under there?

A. I think there are.

Q. Do you know?

A. I should say as a geologist, perhaps, yes.

Q. That you know there are shale beds there?

A. Yes.

Q. Where are they?

A. Beneath the Elk Hills.

Q. The entire Elk Hills?

A. I think so.

Q. How thick are they?

A. I don't know.

Q. What kind of shale are they?

A. I think they are diatomaceous shale. [636]

Q. Did you see any of that diatomaceous shale?

A. No.

Q. Is shale always diatomaceous?

A. No.

Q. Is shale diatomaceous over any considerable area when you find it diatomaceous at one point?

A. I should think this exposure running over a great many miles shows it has a very great extent.

Q. That is not my question. Is shale always diatomaceous over the entire bed when you find it diatomaceous at one point?

A. No.

Q. And shale, even if diatomaceous, is not always oil-producing?

A. No. You would assume that this is the source of the oil.

Q. Then we have to assume that in order to get any conclusion?

A. No.

Q. Do you know it is the source of the oil?

A. No; we do not have to assume it to arrive at any conclusion regarding the oil value of the Elk Hills.

Q. Even though we do not assume that somewhere or some place there is some oil-producing

shale, or was at some time, we still know there is some oil in the Elk Hills. Is that your position?

A. I say you do not have to know the source of the oil in a given region to determine the area which is oil land. Your basis is the persistence of the porous bed or reservoir and the geologic structure.

Q. Has it been your experience and observation that whenever you have a reservoir, you always have something in it?

A. No; the presence of oil in a reservoir must be shown [637] either by seepages or wells.

Q. If you have a tank-car standing on a side track and see traces of oil on the outside of it, and you are satisfied that it was a very suitable receptacle for the accumulation of oil, would you say there was oil in it?

Mr. Mills—I ask counsel whether he considers that question very material in this case?

Mr. Lewers—I consider it exactly in a par with those conclusions.

A. It is entirely different. It is absolutely absurd. And has absolutely no relation to your geologic conditions. Your reservoir in the case of oil is not a tank-car, and anyone knows that that knows anything about the matter.

Q. I also assume that the tank-car did carry oil.

Mr. Mills—I would like to ask counsel how long he intends to continue this cross-examination along the lines he started? I shall certainly object to any further cross-examination which I think is immaterial and irrelevant, and encumbering this record

with a vast amount of burdensome matter which has no relevancy whatever, and piling up the costs in this case.

Mr. Lewers—Well, you have registered your objection.

Q. Now, coming to your secondary proposition: Did you determine that there was under the Elk Hills a suitable reservoir for the accumulation of oil?

A. Yes sir; I believe there is.

Q. Did you determine that there was?

A. Geologically, yes.

Q. Do you know that there is?

A. I believe there is.

Q. You believe there is from a speculative point of view?

A. No; it is a matter of very careful scientific reasoning which shows that it is the case. **[638]**

Q. What is a suitable reservoir for oil?

A. You may have a porous sand; you may have a porous gravel; you may have a porous limestone or a porous sandstone or a porous conglomerate; porous granite under certain conditions would be a reservoir.

Q. Is there a porous sand under the Elk Hills?

A. I believe so.

Q. Do you know it?

A. I think I do.

Q. Have you seen it?

A. No.

Q. Is there a porous sandstone under there?

A. Quite probably.

Q. Have you ever seen it?

A. No.

Q. Is there a porous granite?

A. There might be at a great depth.

Q. Have you ever seen it?

A. No.

Q. And your statement that there is a porous medium of some kind is merely a deduction from external appearances?

A. Yes sir; and experience and knowledge regarding characteristics of beds and sedimentary strata.

Q. In California?

A. No; but experience anywhere else is applicable here on matters of stratigraphy.

Q. Then you would not agree with Mr. Youle that experience anywhere else is of no value in California?

A. His experience was in drilling for oil in Pennsylvania, which was restricted. It was not to a question of the geological determination. The matter of stratigraphic geology is the same wherever it is applied, and experience in one region— **[639]** all experience on stratigraphic geology—would have a bearing on the determination of stratigraphic geology in other places.

Q. Have you ever had any experience in lode mining?

A. No.

Q. Or had any experience in a lode mining country?

A. No; my whole experience has been with stratified deposits, in which it has been the problem to determine the persistence of coal b[illegible]d oil formations and water.

Q. Is it not a fact that pruden[illegible]areful, experienced and successful business men,—men experienced and successful in lode mining and in placer mining for gold—expend large sums of money in following up the advice given by competent and experienced mining geologists as to the occurrence of either the precious minerals or copper or lead?

A. They frequently do, but I should say that the matter of lode mining is entirely different from coal and oil.

Q. I didn't ask you that. I am asking you one question and you have answered it. And is it not a very common thing for prudent miners who have money to invest to employ expert geologists and mining engineers to determine where they shall carry on their mining work?

A. Yes.

Q. And is it not also a very common thing in their determination, directed by experienced, competent mining engineers, that they find nothing at all?

A. I should not say it is a very common thing.

Q. You have had no experience in copper mining?

A. No; I have stated I had no experience in that. But when you say an experienced and competent

geologist, you restrict your question very materially.

Q. Let us come to another thing. Is it not a very common thing when you have a mine, gold or silver or any other mine [640] for the metals, at a particular point, and another mine which has been proven, say a distance of half a mile or a mile away,—other mines in the vicinity, which are paying mines—with the surface indications, such as dikes, faults and so forth, favorable to the possible occurrence of fissure veins in other territory lying between these paying mines, to term that entire territory mineral ground?

Mr. Mills—I object to that question as obviously irrelevant. It concerns lode mining and has nothing to do with mining for petroleum.

A. I should say I don't know. I have had no experience in mining of that sort. But my best knowledge and belief is that it is an entirely different proposition from coal or oil or water.

Q. By Mr. Lewers—I didn't ask you that, Mr. Veatch. We will come to that. Is it not also true that very frequently land of that character lying between proven lode mines had a market value higher than its agricultural value by reason of its contiguity to the lode mines?

A. That is quite possible. But the fact would not be based upon the same line of evidence as the value of coal or oil.

Q. You are very anxious, are you not, Mr. Veatch, to bring in this comparison with coal and oil?

A. Not at all; but it seems to me we are dealing with coal and oil and you are asking questions in regard to subjects which are not akin from a geological standpoint.

Q. The important thing in connection with the development of oil in your mind is the oil reservoir, is it not?

A. Yes; and the geologic structure.

Q. Which ultimately would have received the oil from the producing shale?

A. Right. From an economic standpoint. **[641]**

Q. Now, does any difference occur to you between oil and coal in that respect?

A. Yes.

Q. What is the difference?

A. The coal is where it was deposited. That is, relatively to the surrounding beds. The oil has migrated into the sand, but the sand is where it was deposited just as is the coal. It is a matter of determining the persistence and character of that sand in which it is absolutely akin to coal.

Q. That is the clear line of distinction between coal deposits and oil deposits? That is, that coal deposits are where they are laid down and the oil deposits have moved?

A. Generally; yes sir.

Q. Now, the same thing is true with water, is it not?

A. Yes.

Q. Both water and oil are ambulatory, are they not?

A. By that, do you mean it walks?

Q. Yes, I mean walks.

A. I should not say they walk. I should say they move.

Q. When you get into an ambulance you don't walk.

A. These are not carried on anything.

Q. Oil is not ever carried on anything?

A. On an ambulance to the reservoir, the way we are discussing it.

Q. Isn't oil carried on water?

Mr. Mills—I would like to ask counsel what the proposition is—

Q. By Mr. Lewers—Isn't it carried by water?

A. Not always.

Q. Isn't it frequently so?

A. It is in some cases.

Q. And the location of that oil in some cases depends on [642] the action of the water, does it not?

A. Yes.

Q. And by reason of the presence of water in a formation that oil may be carried long distances from its source?

A. Yes sir.

Q. And if the source of that oil is not connected with these porous formations which serve as reservoirs, or if the water cannot get at it, it will not move, will it?

A. It may.

Q. Upward?

A. It may.

Q. Where does it usually go if not influenced by water?

A. It depends on the kind of material you are dealing with. If it is a natural porous bed—you see you are confusing the matter of the reservoir with the ultimate source.

Q. No, I am not.

A. The question relates to what?

Q. Take the oil from the time it starts from its origin, uninfluenced by water, where does it go?

A. It would go into the adjoining porous layers.

Q. Up or down?

A. Both.

Q. To what extent will it go up?

A. It may go up great distances.

Q. Uninfluenced by water?

A. Right.

Q. In the California oil fields have you ever found any indications of that?

A. No, I do not know that I have.

Q. Do you know whether in the Temblor fields it has gone up or down?

A. No. **[643]**

Q. Do you know whether in the McKittrick fields it has gone up or down?

A. Probably gone up; regarding the diatomaceous shales as the source, it certainly has gone up.

Q. Has water caused it to go up?

A. Not necessarily; it may have been in some cases an important factor.

Q. Water is usually regarded as the most important factor, is it not?

A. I don't know that it is.

Q. In the California oil fields is not water regarded as the most important factor?

A. I can't state that that is true.

Q. Do you know?

A. No.

Q. You don't pretend to be thoroughly familiar with oil conditions in California, do you?

A. No; I simply answer from the general standpoint.

Q. Did you determine whether or not under the Elk Hills water has had any influence on the movement of oil?

A. No.

Q. You read an affidavit, did you not, of a man named Love, preparatory to forming your opinion?

A. Yes.

Q. And that referred to a well in Section 11, 31-24, did it not?

A. Yes.

Q. And in that affidavit he stated, did he not, that a large flow of water was encountered at a depth of 260 feet?

A. Did he say a large flow or quantity?

Q. Quantity of water.

A. Yes. **[644]**

Q. And at about the same depth they noticed a few drops of what he regarded as oil rambling down the drill?

A. Yes; they obtained some oil there, he said.

Q. And went to a depth of over 500 feet and then quit?

A. Yes.

Q. And found no further oil below?

A. They had a large amount of gas.

Q. But found no further oil below, did they?

A. I don't remember that they did.

Q. Did that indicate to you in forming your conclusion that there was an oil deposit at a depth of 260 or '70 feet at that point?

A. No.

Q. What did it indicate to you?

A. It indicated that there had been a leakage of oil—indicated by seepages and wells at the Temblor Range, and would be an important factor in proving beyond a doubt the presence of oil beneath the Elk Hills.

Q. In commercial quantities?

A. I think it would indicate that it was in commercial quantities.

Q. That is, a few drops of oil on the drill 260 or 270 feet down would be an indication?

A. Yes; in connection with the geologic construction and the seepages and wells along the range, it shows that there is oil in the Elk Hills.

Q. And in commercial quantities?

A. In connection with the surrounding conditions, yes; I believe it does indicate that.

Q. These few drops at a depth of 260 or '70 feet

indicate in connection with the surrounding conditions oil in commercial quantities in the Elk Hills?

[645]

Mr. Mills—Just a moment. I think the record will show that the witness has answered that twice.

Mr. Lewers—Not a specific answer yet.

Mr. Mills—Yes, he has.

Q. By Mr. Lewers—I would like another answer.

Mr. Mills—I object to the witness answering the question more than twice.

A. Without that well, the geologic structure and conditions, the seepages and wells along the front of the range, are sufficient to show that that is oil land, and this simply corroborates that conclusion by showing the actual drops of oil.

Q. By Mr. Lewers—Then even without those drops of oil rambling down that drill, you would reach exactly the same conclusion?

A. To me, yes.

Q. Did the water have any significance to you in determining the value of the land?

A. No; that surface water is not connected with the problem in any way.

Q. What can surface water be used for?

A. It depends on the character of the water.

Q. Is it possible to use surface water for irrigation?

A. If it is there in sufficient quantities. The presence of water there in a well does not show the quantity of water.

Q. Doesn't that indicate that that land has some possible value for water?

A. I think not. The geologic structure is opposed to your idea in that regard.

Q. Even though considerable quantity of water was found in that well you would say that that would not add in any way to the value of the lands for water?

A. A considerable quantity? We don't know that a con- **[646]** siderable quantity was found.

Q. Have you that affidavit before you?

A. No; you have the affidavit.

Q. You have a copy. I have merely a copy.

A. I have not a copy of the affidavit.

Q. I have not the original.

A. That is all that I saw—what you have.

Mr. Mills—I suggest that counsel leave the affidavits with the Examiner so we can examine them.

Mr. Lewers—I am not through with them.

Mr. Mills—That doesn't make any difference.

Mr. Lewers—It does to me.

Mr. Mills—What is your purpose with those affidavits? Do you regard them as your personal property?

Mr. Lewers—Till I complete the cross-examination, yes.

Mr. Mills—I would like to know if you refuse to permit us to examine those affidavits at any time?

Mr. Lewers—No. I don't think you furnished me with all the affidavits that were used. I am satisfied of that.

Q. The affidavit states that at about 250 feet "We struck a flow of water, and the greater the depth the stronger the pressure of water, and we were unable to shut it off." That would indicate to you from your experience in water wells that there was some water in there?

A. There was some water, certainly, but it would not indicate to me that there was necessarily a large supply. The geologic conditions and the climatic conditions are opposed to such an idea.

Q. What is the formation of the San Joaquin Valley in the vicinity of the Elk Hills? Synclinal or anticlinal?

A. It is a broad syncline, taking the whole of the south end of the San Joaquin Valley which includes the area from the [647] Kern River field on one side and this field on the other—is a broad syncline.

Q. And what is there to the east of it?

A. There is a range of mountains.

Q. Quite a high range, is there not?

A. Yes sir.

Q. Is there anything to prevent the accumulation of a large quantity of water in that syncline?

A. Yes; there is probably a large quantity of water in the syncline.

Q. Isn't it possible that the large quantity of water in that synclinal area may force whatever oil there may be in that formation clear through the Elk Hills?

A. Oh, no.

Q. That is impossible, is it?

A. I think so.

Q. Why?

A. Because your Elk Hills is a dome, and the effect of water around that dome would be to concentrate the oil to the top of the dome, and make the lands here the most valuable lands in the whole country.

Q. Suppose that you had a slight dome with a synclinal area back of that, with a porous formation in which water was introduced from a source on the other side of the syncline, much higher than the Elk Hills, and no escape for that water to the surface; will that water go through the dome in the Elk Hills?

A. I think not under the conditions existing here. In the first place, your statement of the source is incorrect—your hypothesis of the source. In the second place, the possibility of water going in to the oil sands is precluded by the fact that they are already filled with oil, and the whole intake is blocked with asphaltum and the water would not come in. **[648]**

Q. On the east side?

A. On the west side.

Q. On the east side?

A. There is a big fault standing high up, and your intake would not be high enough.

Q. Where is that fault?

A. In the face of the granitic mass.

Q. Have you ever been there?

A. Yes.

Q. On the east side of the valley?

A. Yes.

Q. How high is it?

A. The recent beds there stop right at the edge of the granite, at relatively a low level. There is no condition of an artesian standpoint which would affect the Elk Hills.

Q. There are no artesian wells?

A. No, I didn't state that. I said they would not affect the Elk Hills.

Q. Are there any artesian wells in that valley?

A. I think there are.

Q. A great number?

A. I don't know. I should say it would be a good place for artesian wells.

Q. In answering the question, when you say that the water is not in the dome, you are assuming that there is oil?

A. There is oil proven in the outcrop.

Q. In the Elk Hills?

A. I think so.

Q. The outcrop in the Elk Hills?

A. No; in the flank of the mountain. Taken in connection with the source, it shows there is oil beneath the Elk Hills, which is corroborated by the seepage in the Elk Hills, in the **[649]** Buena Vista Hills, and the oil in the wells and the gas in the wells.

Q. You mean because there is an outcrop in the Temblor Range that you know that there is oil under the Elk Hills in paying quantities?

A. I believe there is.

Q. That is not the question.

A. I can express it this way:—

Q. Will you kindly answer my question? Do you know that there is oil in paying quantities in the Elk Hills?

A. I believe there is.

Q. I wish a direst answer.

A. I have stated repeatedly that I would not guarantee to any man going into the Elk Hills that he would get commercial wells. But I would advise him to drill and pay an enhanced value for that land because of the geologic conditions, the show of oil in that layer over a wide area.

Q. And yet you don't know from the testimony which would have been available to a man in 1904 that you could make one dollar in a hundred years out of the oil under the Elk Hills, do you?

A. I think a geologist would have taken just the same position that I have outlined, at that time.

Q. Can't you answer my question?

A. I have answered it.

Q. Will you read the question again? (The reporter reads question beginning on line 4 of this page.)

A. I would believe that a man would make a great success. I would not guarantee that he would. I would not guarantee a man in any business undertaking that he would make a profit.

Q. Do you know now that there is sufficient oil in the Elk Hills to add to its richness? **[650]**

A. I believe there is.

Q. Do you know?

A. No, except as I have stated before.

Q. Do you know whether there is enough oil in the Elk Hills to pay for its extraction?

A. I believe there is.

Q. Do you know?

Mr. Mills—I object to that question and any further examination along this line because the witness has repeatedly stated just what his opinion was, and his answer was entirely responsive to the question. It seems to me that counsel ought not to incumber this record with a lot of immaterialities and insist upon categorical answers where the witness has explained to the best of his ability everything that is responsive to the question propounded to him. I do not want to be repeatedly objecting, but it seems to me we ought to get down to the issues in the case without burdening this record with so much reiteration.

Mr. Lewers—I am trying to get the issues, and not mere guess-work.

A. From scientific deduction, yes.

Q. Do you know?

A. What do you mean by "know?"

Q. Are you not familiar with the meaning of the English language?

A. The word "know" is a philosophical matter—the question whether you know anything or not. I see a stick sticking in a pool of water. My eyes tell

me that the stick is crooked. I pull the stick out and it is straight. I cannot know from my eye-sight in that respect, but I believe from my previous experience that the stick is straight, and I believe there is oil under the Elk Hills.

Q. You feel the stick when you pull it out? **[651]**

A. No.

Q. You look at it?

A. Yes.

Q. Did you see any oil?

A. I saw conditions around there, geologic conditions, which warrant the conclusion which I reached; and from experience of a great many men through a great many years, that conclusion is justified, and it is the kind of a conclusion on which men invest money and invest money generally with profit.

Q. And upon just that kind of conclusions men invest money in lode propositions?

A. No; I have explained the difference between lodes—

Q. Don't they invest money on just that sort of prediction?

A. Not on the same sort of evidence, no. The evidence in the case of lode claims is entirely different from the evidence in a case of economic minerals occurring in stratified deposits.

Q. In your opinion then—I am now asking for your belief—there is a large quantity of oil under the Elk Hills?

A. I believe so.

Q. And at what depth?

A. I should say it may be under five thousand feet or it may be over.

Q. In 1904 could that have been mined at a profit?

A. No.

Q. Would it have been mined in 1904?

A. No. But there are a great many valuable mineral deposits that cannot be mined at a given moment that are perfectly good mineral lands.

Q. And in your opinion does that oil zone extend anywhere beyond the Elk Hills to the north?

A. I think so.

Q. In your opinion is the Miller & Lux ranch valuable oil **[652]** land?

A. It has possible value. The value is not as great as the Elk Hills.

Q. Why?

A. The greater depth to the oil. It has a greater water content in the beds above the oil. The difficulty of casing off the water would be greater than in the Elk Hills. I believe the Elk Hills will ultimately be developed into good oil lands.

Q. When?

A. Ultimately.

Q. What period do you have in contemplation?

A. I think the conditions will arise that it will be developed very fully.

Q. When?

A. The matter of when involves a great many considerations.

Q. What considerations?

A. The matter of the price of oil, questions of transportation, questions of economic features. I can illustrate that entirely in the matter of coal lands. You take a coal bed occurring a hundred miles from a railroad today in the central part of the west, a coal bed ten feet thick, of good bituminous coal, with coal beds occurring between that bed and the railroad and numerous mines on the railroad, which is true in a great many places in the west. That ten-foot coal bed cannot be mined at a profit today, possibly. The question of whether that is mined or not depends upon the building of other railroads. There is no settlement in the country. Very few people to consume the coal. A great many factors there. Now, on the matter of immediate development, that would not be coal land because it cannot be mined at a profit at this minute. There may be conditions of marketing and conditions of transportation.

Q. Do those conditions of transportation and market exist **[653]** now with reference to the Elk Hills?

A. There is a question there of depth. And, again, in coal, as I told you this morning, coal men buy land in which the coal is at a much greater depth than is mined today. There is the ultimate factor of development. It will ultimately be developed, and it is most valuable for that purpose.

Q. You say "ultimately developed." Will you hazard a prediction as to when that would be?

A. No.

Q. Will it be within the next ten years?

A. It is possible.

Q. And it is possible that it may not be for twenty years?

A. It is possible.

Q. Or a hundred years?

A. I think that is very remote.

Q. That is, you think it is safe to say that somewhere in the next hundred years the Elk Hills will be developed?

A. Yes; I think they will be developed before a great many coal deposits in the middle west.

Q. And some of those may never be developed?

A. Yes; and they are good coal land and are more valuable for the coal than anything else.

Q. That is, you think they are all at some time in the future to be developed, and that is why they are valuable?

A. I think they will be developed.

Q. Do you think it is at all hazardous on the part of a competent geologist to say that the Elk Hills is valuable oil land?

A. No; I should say it was valuable oil land, and I would have said so in 1904.

Q. Do you think it is at all hazardous to venture the statement that the Elk Hills contain oil at all?

[654]

A. I think they contain oil. I think the probabilities are such as to warrant the investment of money on it.

Q. Then you don't think the statement that it contains oil is at all a hazardous statement?

A. No.

Whereupon the further taking of testimony herein was adjourned until Tuesday, May 14th, 1912, at 10 o'clock A. M., at the same place.

On Tuesday, May 14th, 1912, at 10 o'clock A. M., the further taking of testimony herein was resumed.

Mr. Mills—It is stipulated between the parties to this cause that all the exhibits heretofore introduced by the government and those which may hereafter be introduced, if any, shall be placed in the custody of United States Attorney A. I. McCormick and preserved and cared for in the vault in his office; it being understood that counsel for the several defendants shall at all times have access to the same.

Mr. Lewers—That is agreeable to us.

Mr. Mills—It is stipulated that no question shall be raised by either party upon the regularity of the proceedings taken and had in this cause on this, the 14th day of May, 1912, because of said day having been declared a holiday for the purpose of state primaries.

Mr. Lewers—That is agreeable to us.

A. C. VEATCH recalled.

CROSS-EXAMINATION resumed

By Mr. Lewers:

Q. Mr. Veatch, you testified—and I am referring to page 1347 of the record—as follows: "The stratified rocks are [655] laid down in relatively regular

layers, for the most part beneath the sea, and are to be contrasted with other rocks formed by igneous intrusions or volcanic outpourings or which have been so altered by metamorphic action as to lose their former characteristics. The individual layers of stratified deposits can be traced for many miles, and in many cases hundreds of miles, showing to a great extent the same characteristics, and it is on this regularity or irregularity as shown by the outcrop that practical men base their conclusions and have spent great sums of money in developing minerals of the kinds which occur in stratified deposits." Now, did you trace any such stratified deposits for many miles in the vicinity of the Elk Hills, or is that merely a general preliminary statement?

A. That is a general statement of fact. I think it applies to this region. There is such a regular or irregular layer running along that mountain for many miles—several of them.

Q. Well, did you select any layer of that kind, or stratum, on that outcrop along the Temblor Range and follow it for any distance to determine its continuity?

A. Those diatomaceous beds are very persistent, that is, considered as a group of beds. They run for a great many miles.

Q. I am not asking as to any group of beds, but as to any particular bed which you would say belonged to one period of time.

A. Well, those diatomaceous beds.

Q. Through a single period?

A. I think so.

Q. Well, did you determine in any way to what period they did belong?

A. No. They could still belong to one period and not have that period determined.

Q. Did you follow from any point to any other point at any distance from it any particular layer?

[656]

A. What do you mean by—

Q. I am using the term which you employed—showing that the stratum or series of strata that you were examining belonged to some comparatively short period of geologic time?

A. Why, I have stated those diatomaceous beds as running a great many miles there.

Q. You are aware, are you not, that Mr. Arnold has termed those shales at McKittrick "Monterey shales"?

A. Yes.

Q. Now, did you follow what he has termed "Monterey shales" for any distance at all along the outcrop?

A. I followed them along that mountain range there.

Q. How far did you follow what he has called the "Monterey shale"?

A. In the region between Sunset and below Sunset and McKittrick.

Q. And did you find Monterey shales exposed along that entire region?

A. Found diatomaceous shales.

Q. Well, did you find Monterey shales?

A. I don't know that they are Monterey.

Q. Then the exposures at different points along that area might have belonged to other formations?

A. I don't believe so—referring to the diatomaceous beds I am speaking of.

Q. Do you think they are all a portion of what Mr. Arnold has termed "Monterey shales"?

A. He has noted them as Monterey. It is a matter of correlation as to whether Monterey includes that, if that is the definition of the word "Monterey"; and for any economic purpose concerned here we have the three part division of that mountain chain that I outlined yesterday. **[657]**

Q. That may be or may not be; but what I want to know is, did you determine that all of these exposures of shale which you have termed diatomaceous shale belonged to the same period as those which Mr. Arnold has called the "Monterey shale"?

A. Yes; the ones that I am speaking of do, I think.

Q. And were they laid down, in your opinion, at the same time as the shale which Mr. Arnold has called "Monterey shale" which is revealed at McKittrick?

A. Yes; in the stuff just southwest of McKittrick they are observable.

Q. Well, was it at Sunset laid down at the same time, in your opinion?

A. I think, relatively speaking, in a geologic sense.

Q. And in the Devil's Den district?

A. I don't know.

Q. You have examined that, haven't you?

A. No.

Q. Have you been up there at all?

A. No.

Q. Then you are not familiar with that?

A. No.

Q. In what direction is the diatomaceous shale which Mr. Arnold has called "Monterey shale", which is shown at McKittrick, dipping? West or east?

A. It is badly broken there.

Q. Well, where you find the exposure or section of that shale in the vicinity of McKittrick, in which direction is it dipping? East or west?

A. I think that you can get the dip in almost any direction at McKittrick on those beds. That is my general impression of it.

Q. Is it not a fact, Mr. Veatch, that in the vicinity of [658] McKittrick the thrust has thrown what Mr Arnold calls the Monterey shale from the west on top of the formation lying to the east?

A. I believe that is true.

Q. So that the section which is exposed there is a section of the overthrust from the west, is it not?

A. Yes, in a portion of that McKittrick Hill.

Q. And that indicates to you, does it not, a definite

fault line—more or less definite fault line at McKittrick?

A. It does.

Q. With a thrust from the west?

A. Yes; probably so.

Q. And the exposures of oil in the shape of asphaltum are in the vicinity of that fault, are they not?

A. Yes.

Q. Did you determine whether or not the oil which produced those asphaltum beds there came from the east or from the west?

A. I did not.

Q. You could not determine that, could you?

A. I don't believe I could, no.

Q. And was that not a factor—that is, the overthrust from the west—rendering it somewhat difficult to determine the thickness of any beds of this shale that might extend toward the east from McKittrick?

A. If that was the only exposure in that whole region, that would be true, but taking the general geology into consideration, I think that should be regarded as a minor disturbance.

Q. Where else did you find any exposure of that same structure, into that same shale?

A. I think that the beds there in the Temblor Range to **[659]** the southwest show it.

Q. To the southwest?

A. Yes.

Q. Did you find any in the vicinity of Midway?

A. Yes. They belong to the beds below those porous beds that I have spoken of as the third member.

Q. Did you find any opposite the Elk Hills?

A. They extend along that whole range. The nearest point they approach to the Elk Hills is in that McKittrick district.

Q. You have a copy of Mr. Arnold's plate No. 1, have you not?

A. Yes.

Q. The portion of the Temblor Range that lies opposite the Elk Hills, and particularly opposite the lands in question in this case, is some distance to the southeast of McKittrick, is it not?

A. It is much nearer to it to the west of the hills. The matter of "opposite" I think is merely a quibble.

Q. That may be, but perhaps I have a reason for indulging in that quibble. Will you answer the question?

A. Well, now, it is simply a question of what you mean by "opposite". A building may face on two streets. It can have things opposite in different ways.

Q. I will explain what I mean by opposite, Mr Veatch. I did explain it yesterday. Take a line running generally along the axis of the anticlines which you have indicated in the Elk Hills, and draw a line perpendicular to that and as near perpendicular to the axis of the Temblor Range anticlines as you can. Where will it strike the Temblor Range?

A. Some place near Midway.

Mr. Mills—That is the center of the line you mean?

Mr Lewers—Yes.

A. And did you find, at any place between Midway and a [660] point say eight miles to the northwest of Midway, any exposures of sections of this diatomaceous shale?

A. No.

Q. Did you find any sections of that diatomaceous shale at a point between Midway and what is known as Spellacy Hill?

A. In the range back of it there is some.

Q. Well, in my question I am including any exposures that you found in that range, whether on the front of the range or back toward the west.

A. I think there is some in the hills to the west.

Q. Whereabouts? Could you locate that with more definiteness?

A. Only in a general way. I went in and out of those hills there without locating the sections.

Q. Well, with reference to the town of Midway, could you give me an idea where it is as to directions and distances?

A. It would be generally in that range of mountains to the west of Midway.

Q. And about how far?

A. Oh, it would be several miles.

Q. And how thick was the exposure of diatomaceous shale that you were able to determine there, approximately?

A. I made no determination there.

Q. Where was it that you made your determination?

A. In southwest of McKittrick.

Q. About how far southwest of McKittrick?

A. Four or five miles.

Q. And what is the appearance, Mr. Veatch, of diatomaceous shale which is oil-producing? What color is it?

A. I don't know.

Q. Did you ever see any?

A. Only in regarding this diatomaceous shale as the source [661] of the oil. I say that I don't know that it is the source of the oil, but I believe it is. That has not been absolutely proven. It is not susceptible of absolute proof.

Q. Would the horizon test which you have announced indicate to your mind that there was any oil in the land underlying what is known as the Midway Valley to the east of Midway?

A. Yes.

Q. Did you determine what the dip of the formation was there?

A. No.

Q. You know as a fact, do you not, Mr Veatch, that wells have been sunk on the slope leading down to that valley from the Temblor Range?

A. Yes.

Q. You also know, do you not, that recently many of those wells in that district have been abandoned?

A. I didn't know that.

Q. There are certain wells in there sunk by the Standard Oil Company, are there not?

A. I have heard that the Standard was working in there. I don't know where they are working.

Q. The Standard Oil Company has withdrawn from that territory, has it not, on account of inability to find any oil?

A. I don't know that at all. I know they are working in that region, and according to newspaper accounts have gotten large wells recently.

Q. You have no definite information?

A. No; but what I have does not agree with that statement.

Q. Did you determine, or could you determine, Mr Veatch, at the place near McKittrick where this thrust from the west occurs, whether or not all of that shale formation had been thrust over the formation to the east? **[662]**

A. I didn't attempt to do so.

Q. And it is possible, is it not, that that shale formation is very much thicker than shown by the section on the surface?

A. You mean the remnant that is shown there at McKittrick?

Q. Oh, no; I mean from all indications on the surface.

A. Why, I think that that shale could be worked out in that range there, the thickness could be gotten with a great deal of definiteness, with a great deal of careful work.

Q. Possibly what had been thrust up could, but could you determine the entire thickness of those beds of shale as originally laid down?

A. I think so.

Q. From the evidence that there is there manifest?

A. Yes, in that mountain range there in the neighborhood of McKittrick.

Q. Isn't it possible that only a portion of the entire thickness of those shale beds has revealed itself by any evidence on the surface?

A. There is a possibility of erosion, but from what I have seen of the region I should say that you could determine practically the total thickness, with careful work, extending along that range.

Q. Now, did you determine or do you know whether the overlying portion of that shale is the oil-producing portion or not?

A. No.

Q. That is, I mean the oil-originating portion.

A. I believe that it is. I believe that the whole series is an oil-producing formation.

Q. And upon what do you base that conclusion?

A. I have stated that I could not demonstrate, and do not [663] believe that it is susceptible of demonstration, that the shale is the source of the oil. I believe that it is, and I believe that the whole diatomaceous shale is oil-producing.

Q. In Bulletin No. 322 by Mr. Ralph Arnold and Mr. Robert Anderson, issued in 1907, discussing the

geology and oil resources of the Santa Maria Oil District of Santa Barbara county, Mr. Arnold and Mr. Anderson make this statement at page 74, in discussing the criterions for judging as to the presence or absence of oil: "The second criterion is the statigraphic position in the formation of the beds exposed over the area in which oil is sought. As has been before stated, the oil-bearing strata occur chiefly in the lower portion of the Monterey. Where the outcropping beds belong to the higher portion of the formation there is a greater likelihood that the underlying oil-bearing strata have been able to retain their contents than where the lower strata have been denuded of the greater part of the overlying beds or where they are themselves exposed or partially removed." Do you agree with that statement?

A. I don't know the Santa Maria field; but the answer to that I think is found, with relation to this field, in the facts that I stated here. The big oil-producers are overlying shales and the small oil-producers underlie this diatomaceous series, which would indicate that if the diatomaceous shale is the source of the oil, it is the upper portion that is the most productive.

Q. Then it is your opinion, from the indications, that in the vicinity of McKittrick the upper portions are probably the most productive?

A. That would be shown by the development, the conditions there.

Q. And that probably a different condition exists in the Santa Maria fields?

A. I don't know as to the Santa Maria field. **[664]**

Q. At page 203 of Bulletin No. 406, on the McKittrick-Sunset Oil Region, issued in 1910, Mr. Ralph Arnold and Mr. Harry Johnson make the following general statement with reference to this territory that has been referred to: "The conclusions here to be discussed as to the course that future development will take in the McKittrick-Sunset region are based on a belief that the petroleum in the Devil's Den District is largely derived from the shales of the Tejon formation and the overlying Oligocene (?) rocks, and that on migration it collects in the sands in the Vaqueros (lower Miocene) formation, which lies above the two formations first mentioned; and that the petroleum in the territory from the Antelope Valley southward is derived from the shales of the Monterey and Santa Margarita (?) formations, and that on migration it collects in the sands at the base of or underlying the Monterey formation—that is, in the sands of the Vaqueros; in sand lenses in the Santa Margarita (?), and also in the porous beds at the base of the McKittrick, which unconformably overlies the older formations. All the conditions indicate that this belief is well founded." Do you agree with that statement?

A. I have stated that I didn't know the Devil's Den district at all.

Q. Do you agree with that statement so far as it concerns other territory out of the Devil's Den district?

A. I have stated, which essentially answers that question, that in my belief, and to the best of my knowledge and belief, the diatomaceous bed of this region produced the oil, which accumulated in the sands which occurred below it and which accumulated in the sands which occurred above it.

Q. Well, have you formed any belief as to whether or not the lower portion of that Monterey shale produced the oil originally? [665]

A. I think it did, with respect to the oil that accumulated in the beds that underlie it.

Q. Well, did the upper portions of that Monterey shale in the vicinity of McKittrick produce any oil?

A. I think the whole series produced the oil. It is a matter that is very difficult of proof.

Q. Or to disprove?

A. Yes. The argument as to the Elk Hills is based not upon the presence of this shale but on the presence of a porous bed which is filled with oil and the persistence of the oil in that porous series.

Q. Mr. Veatch, in your opinion can the existence of oil be determined without drilling?

A. It cannot be proven in commercial quantities without drilling.

Q. Can its occurrence be determined?

A. I think it can to a reasonable degree. The matter of opinion is based upon experience and on the stratigraphic condition. The geology of the country shows, within the reasonable probability of suc-

cess of a business venture, that oil occurs there. If that were not true there would be no occasion whatever for employing geologists, as the Southern Pacific Company does and a great many other companies do.

Q. Is that made as an answer to my question or as an argument?

A. There is no argument in that. It is simply an explanation.

Q. You were asked with reference to the Southern Pacific employing geologists, were you?

A. I used that merely as an illustration. A large number of companies do. That was merely one large company which employs geologists in that way. There are a great many of them. **[666]** It is the usual method today.

Q. Now, in your opinion is the sinking for oil in a territory like that in the Elk Hills a gamble?

A. I would not term it so. I think there is an element of risk, as there is in all business ventures. I would not guarantee that there was oil there, but I would say that there was such a reasonable probability of it occurring there that it would justify expenditure. I would certainly advise a company to drill there and would be sure in my belief that they would get a large quantity of oil. If I didn't believe that from the geologic evidence I would not advise them to drill.

Q. Then would you agree with this statement, made by Mr. Youle at page 1051 of the record: "I would not care, if I had an idea the formation was

there and the ear-marks were there, whether the Associated Oil Company went down four thousand feet or whether they went down three feet and a half —that would not cut any figure whatsoever. They might get a water well. Water streaks go through any formation. That is why the oil business is a gamble. It is because there is no man, geologist expert or anything else, who can tell you where these faults are. There may be a world of oil there there may be a tight streak of sand, filled up with clay that won't let the oil through, and you might drill right in that spot. You can't look down and see; you may be in the wrong place. But by reason of being unfortunate and getting in the wrong place, that don't test a territory. It takes several wells to test a territory. That well of three or four thousand feet would not cut any figure with me at all. Q—Then it comes right back to this, that the proper test in the territory is the well? A—Wells—'wells'. Q—'Wells'. A—Plural. Q.—In the plural? A—Yes." Do you agree with that?

A. In a general way, yes. He distinctly states that if the ear-marks were there—by which I think he means the favor- **[667]** able geological conditions—he would contend that that was oil territory even though a man had put down a well and reported nothing. There are a great many cases where wells have been sunk where there is perfectly good oil, there is oil in large quantities, where the wells have reported nothing. There are certain mechanical features in drilling the well, and I think it is entirely true that

a single well would not test the oil layer. There may be a layer of water-bearing sand entirely separated from the oil; the oil sands may be passed through, and nothing but water developed. That well would not be conclusive in any way. That is particularly true where wells are drilled with a rotary and where the formation is masked by the mud used in the rotary process. No geologist will guarantee that oil will be encountered at any point; but he can give you the probabilities that exist there.

Q. Would you agree with this statement, made by Mr. Youle at page 1047 of the record: "I know this, that geologists, the scientific geologists—Le Conte—taught in school there was no oil in California, and gave a good reason for it. I know that you can get all the evidence you want from geologists and from bulletins that this is so and that is so, but you can't prove it until you put the drill on, and the drill has shown exactly what practical geology is."? Do you agree with that?

A. In a general way. I think Mr. Youle is an excellent example of a practical geologist. He has gone out there and by advance drilling has said, "This is good territory"; he has advised it and his prediction has come true. There is a great distinction between the practical field man and a man of the type of Professor Le Conte, who was a very able writer and who sat in his office and spun theories. There is a great difference, a very sharp line, between the actual field geologist and the writer of a great many text books.
[668]

Q. Well, the question was do you agree with Mr Youle's statement?

A. I think I have expressed my opinion of it.

Q. You agree with it with modifications?

A. No; I say that Mr. Youle is in himself proof of the point. The development of this great West Side field, I think, is due to Mr Youle. He went in there before there was any development. There was a little development at McKittrick and that had been practically abandoned. He was sent in there by a group of oil men as a practical geologist. He went along the territory, he traced these seepages, he saw the dip down into the valley, he saw these folds in the side; he went back and said, "This is good oil territory", and on that advice they developed. I think you can get no better example of the soundness of practical geology.

Q. And yet, during all that time nobody ever sunk a well in the Elk Hills? Is not that the fact?

A. That is not at all conclusive as to its oil.

Q. Well, that is the fact, isn't it?

A. There may be a coal bed 200 miles from the railroad that no one can possibly develop. In advising regarding the development of that territory, here is the outcrop—a long outcrop—running for 30 miles or more. You will get shallower wells near the outcrop than you will at much greater depths, and it is simply a practical business proposition to sink for the shallow oil. I said yesterday that the Elk Hills will ultimately be developed, and, in my

opinion, will be a large oil field, a large producing field.

Q. Why is it that at every opportunity you bring in your illustration of the coal fields? Is it by reason of your former experience as an expert in the case of the United States against Diamond Coal and Coke Company? **[669]**

A. No. My experience has been, as testified, specially in stratified deposits. We are dealing with oil, which occurs in a stratified deposit; coal occurs in stratified deposits; and the two things are analogous in a great many ways and can be used as a very apt illustration.

Q. But they are not analogous in this, that coal stays where it is formed and oil does not? Is not that the difference?

A. That is the difference.

Q. Now, you say that by reason of that you believe this territory will eventually be developed and that in your opinion the proper test is not what its commercial value was in 1904? Is that correct?

A. I think its absolute commercial value in 1904 is a minor matter. It is good oil territory.

Q. Now, there is a great deal of clay, is there not, in the Elk Hills?

A. I have seen some.

Q. Clay contains aluminum, doesn't it?

A. I think so.

Q. And contains, frequently, a high percentage of aluminum, does it not?

A. Yes; a certain kind.

Q. Aluminum has value in the market, hasn't it?

A. Yes.

Q. And the time may come, within the next fifty years, where they may discover some method to cheaply extract aluminum from the clay in those hills, may it not?

A. Yes.

Q. Would you therefore say that the Elk Hills, in 1904, were valuable for their aluminum deposits?

A. No.

Q. Why? [670]

A. For this reason, that clay is one of the commonest things on the earth. If a cheap method of obtaining aluminum from ordinary clay is devised, the clay deposits developed will be nearer to market than this deposit. But there is this consideration also, that if its ultimate value for aluminum is greater than its ultimate value for agriculture, I think that land is mineral land.

Q. Well, you don't think it has any value for agriculture, do you?

A. Practically none.

Q. Well, then, if it has ultimately the value of five cents an acre for aluminum, it is valuable aluminum land today, is it not?

A. Not at five cents an acre. Your assumption I think, is not well taken.

Q. All right. Where do you draw your line? That is what I am anxious to get.

A. In what way?

Q. As to the value. When would it become valuable for any mineral? What is your test of value above which you say it is valuable mineral land and below which you say it is not?

A. I think there is a question of relative value. For instance, there is a farm on a particular clay soil. Now, if that clay soil is more valuable for growing wheat than for making brick, that is agricultural land; but if the clay is more valuable for making brick than for growing wheat, it becomes mineral land.

Q. But suppose a method is discovered for extracting the aluminum from the clay, and the aluminum is worth more than a crop of wheat grown on that ground, somewhere in the next hundred years, wouldn't you say today that it is more valuable for the aluminum? **[671]**

A. That is, if the aggregate value of the aluminum is greater than the aggregate agricultural value? Is that your question?

Q. Yes.

A. I think it will. That applies naturally to gold mining and placer mining. You have a good orchard on a piece of land which has gold in the gravel below. If the gold is worth more than the orchard, that gold will be mined; if it is not, it will not.

Q. What would you say then as to the classification you place the Elk Hills in, if this were the condition: That it was demonstrated that there was a

deposit of petroleum underlying the Elk Hills within reach of the drill at the present time according to recognized methods; that that oil could all be extracted at a cost of $200,000 in sinking wells and operating them; that that oil when extracted would bring in the market $250,000; that the soil, so far as the oil is concerned, would thereafter be valuable, and that in the course of fifty years there could be received from agricultural products—from grazing or from any other ordinary use of the surface of the soil (not mining) $52,000 in profits. Would that be mineral land in your opinion or not?

A. I would have to know more about the receipts from your grazing.

Q. Take my assumption that there is a profit of $50,000 from the oil and $52,000 from other non-mining uses of the soil.

A. In how long?

Q. In a period of fifty years.

A. That is, a net profit, exclusive of taxes, exclusive of administration—

Q. Yes, a clear, clean-cut profit in both cases.

A. I should say that that was a doubtful question, because [672] there is the matter of moving your oil. Your assumption of $200,000 may not be correct.

Q. Take my assumption as I give it. I want you to answer on the assumption that the facts are established. I want your determination of what you would call that, assuming that from the one you would make $50,000 clear and from the other $52,000 clear.

A. I would say that it is mineral land, for the reason that one use would not interfere with the other. The instance I cited on the agricultural worth, was in a case where the agricultural value was destroyed by removing the mineral.

Q. You say you would call it mineral land because the other use would not be destroyed. If they were occupied during any considerable portion of that period by oil wells, derricks, machinery, buildings, and so on, in connection with the oil development, and the persons operating the oil wells were entitled under the laws to the exclusive possession of the surface, as they are, wouldn't that interfere with any other use that you could make of the soil?

A. Practically in the Elk Hills, no; because of the character of the Elk Hills. The value is so very low for grazing that the occupation of that by a few wells would not greatly detract from what little agricultural or grazing value it has.

Q. You do not expect a great many wells to be there?

A. Not on $200,000.

Q. As a matter of fact, there are not many wells there, are there?

A. There are a great many derricks there which are occupied, but I think the grazing is just as good as it was before the derricks were put there. Considered as a whole, the percentage of loss is so small as to be negligible.

Q. Are the twenty-eight wells on Township 20-23 completely [673] valueless?

A. I don't know. But even assuming that to be true, I do not think that bears on the oil value of the lands, for this reason: That there may be a derrick, and the well may not have gone to a sufficient depth, which I think is true with a majority of those wells. The derricks may have been put up on the assumption that the Secretary's order of withdrawal of September, 1909, was not valid. And the people may have concluded that the government would enforce that. That would be a serious consideration.

Q. I wish you to answer my question without trying to modify the assumption. I am asking you as a hypothetical question, and assuming that the facts are true, that in a given period of time—say fifty years—the total amount of oil produced from any given piece of territory (Elk Hills or anywhere, it makes no difference) yielded a profit with economical management of $50,000; and that during that same period from non-mining uses to which that might be put, it yielded a profit of $52,000; and that if the land was occupied for the oil mining purposes on the one hand, the other proposition could not be carried out, and if it was occupied for the other purposes the oil mining could not be carried out. Now, which would it be? Mineral land or not?

A. Mineral land, because if it is occupied by the explorer and is so used for fifty years for that purpose, it is certainly mineral land during the time it is occupied.

Q. Do you think that is a fair answer, Mr. Veatch?

A. On your question, yes.

Q. Did you listen carefully to the question? Did you not understand that there were two assumptions —on the one hand that it was occupied fifty years or could be occupied fifty years by oil mining and yield a profit of $50,000, and on the **[674]** other hand that it could be occupied during that period for other purposes, not mining, and yield a profit of $52,000? Now, having those two possible uses in view, which would that be in your opinion—mineral land or not?

A. I think that the question is not complete enough to warrant an answer.

Q. That is, you do not care to commit yourself on that?

A. No; I want to know certain factors. There is a question whether your surface is absolutely destroyed at the expiration of your mining, and whether it can then be utilized for a fifty year period for agriculture.

Q. You can assume one way or the other on that as you please. I am asking for its character now, where within the next fifty years either one of those two things can happen. I am not asking for its character after the fifty years. But we will assume that after the fifty years it could go on and still be used for other purposes—not mining. Now, can you answer?

A. I think if land is clearly more valuable for agriculture than mineral, it is agricultural land, and it has not become clear to me from your statement just the relationship.

Q. If agricultural or non-mining uses of that land would produce a profit of $52,000 against $50,000 on the other, you would say it was more valuable for agricultural than for mining uses?

A. Yes, on your statement of it. But I should add to that answer this: That I don't believe your question applies to the Elk Hills—

Q. Were you asked whether it applied to the Elk Hills?

A. And, furthermore—

Q. Were you asked whether it applied to the Elk Hills?

A. I see no reason for the question unless it does.

Q. Do you feel it necessary to make an argument to remove any possible bearing my hypothetical question may have on this case? [675]

A. None at all.

Q. Are you in the position of a cold, dispassionate expert, or in the position of a partisan for the government, in this case?

Mr. Mills—I object to that question because the witness has been fair and entirely responsive.

A. I am not—

Q. By Mr. Lewers—You are not what?

A. I think I am a dispassionate expert in this case, endeavoring to give to the court a fair idea of the facts existing in this case. I have been carefully over the field. I think I know the facts there, and I want them presented fairly to the court.

Q. You have been carefully over the fields? You

have been there three weeks in all, at odd times. Now, Mr. Veatch—

A. I had not finished my last explanation. And, referring again to coal, here is land which will produce agricultural crops. Take the coal fields in Indiana and Illinois, and the surface is not destroyed in a great many cases and the land is certainly coal land.

Q. Is it your idea that if the government sets aside the patents in this particular case, that after the oil is taken out of that land that there is any method whereby the patent can be restored?

A. You are asking me a question of law.

Q. You have not hesitated to answer questions of law.

A. In what respect?

Q. With reference to the intention of Congress.

A. That is a matter of scientific determination to me.

Q. Now, did you in the preparation for your determination of what a man in 1904 would have known, read a bulletin issued by the California State Mining Bureau, entitled "Bulletin No. [676] 32," issued in March, 1904?

A. Yes.

Q. On page 38 of that bulletin, referring to the Sunset region, the following statement is made: "The wells lie on the lower foot-hills of the coast range, and extend out on the mesa at their base, where are located the stations Pioneer and Maricopa, and

railroad station called Sunset. The elevation at Pioneer is 750 feet, and the wells rise to the maximum height of 1025 feet.

"The formation is of Middle Neocene age, and is in form an inclined plane, following the dip of the surface, in general. Depth of wells varies from 550 to 1000 feet, according to surface conformation, and to position on the dip; the average depth would fall below 750 feet. The producing strip is a very narrow one, and appears to have been determined on all sides, with the possible exception of the southeast corner." Did you take that statement into consideration in reaching your conclusion as to what a man in 1904 would have thought about the Elk Hills?

A. I did; and I also took into consideration that the author of this paper has stated in the letter of transmittal that he is an engineering chemist, and stated what he saw and not what a geologist would deduce.

Q. And then when he stated that the producing territory had been determined on all sides except on the southeast, and that it was a very narrow one, you do not think his statement was worthy of consideration because he was not a geologist?

A. I think his statement was not true.

Q. Did it not occur to you that that statement might be a fair indication of the general impression and belief amongst oil men?

A. No, I don't think so.

Q. Did you also take into consideration when he

said on [677] page 40 with reference to the Midway: "The Midway wells form a narrow line, almost straight, from a point about one-half mile north of the northernmost Sunset well, extending northwest for some six miles. The producing strip does not appear to be anywhere more than one mile in width." Did you take that into consideration?

A. I did, and also the accompanying maps which show the producing wells which essentially agree with the Barlow & Hill map, which is one method I had of checking the accuracy of the Barlow & Hill map.

Q. And show that the producing strip was nowhere more than a mile in width?

A. It shows only that wells had been put only that far; it did not show that the country was not productive.

Q. And yet he states the producing strip was only a mile.

A. His conclusion is erroneous.

Q. That may have been the conclusion drawn in that country at that time?

A. It certainly was not from conversations that I had with various people. If that was the conclusion, you would have seen no more wells sunk and no more development of that great territory which has since been developed. If oil men had believed that, the development would have ceased, and it has not.

Q. I am speaking of what they believed in 1904. Did you take into consideration what he said with

reference to the McKittrick on page 41: "The town of McKittrick lies in a flat valley of the width of some two miles, and bounded by hill ranges of no great height, with a due northwest and southeast trend. On the hills to the southwest lie the principal developments, following the line of the valley for three miles. About midway between the town and the head of the valley a group of wells has been drilled in the mesa, while on the south **[678]** slope of the north hill range some oil has been obtained, though not in paying quantities. The town is at an elevation of 1114 feet, the highest wells 1400 feet.

"The formation is of middle Neocene Age, but its shape has not been determined with certainty. It is probable that the parallel hill ranges, which are remarkably regular and persistent, are of anticlinal formation; but such anticlines, if they exist, are certainly much faulted, and the productiveness seems to be largely determined by the presence or absence of these breaks. As will be readily seen, on examination of the map herewith, the field has been thoroughly tested, and proven to be very 'spotty', a condition readily explained by the highly broken condition of the surface, and the numerous seepages and evidences of chemical action." Did you take that into consideration?

A. Yes; and also the further statement that the depth of the wells varies from 500 feet to nearly 2000 feet, and in considering that, the wells which are referred to as on the north hill, as not paying wells, occur in a region which is much more broken than

the Elk Hills and is not to be compared with it in any way. That would be evident to a geologist who was there in 1904 examining the territory.

Q. But the statement contained in that bulletin does not indicate that it was known to the writer of that bulletin?

A. No; the writer of that bulletin stated in the introduction that he was an engineering chemist, interested in the quality of the oil and uses of the oil rather than in the matter of development.

Q. And you think for that reason he was not in a position, going into the territory in 1904 in place of 1912, like you did, to find out what was generally believed there at that time?

A. He was not in the position that Mr. Dumble and Mr. Owen were in at that time. **[679]**

Q. That is not the question. And why did you think it was necessary to bring them in? Is it as a disinterested expert or as a partisan?

A. Because in forming my opinion I was sent into that region to determine what a geologist would have concluded in 1904, and it has been testified that these geologists were in there. I know of their work. I know of the character of that work. And, therefore, form some conclusion as to what they must have seen when they were in there.

Q. The question I asked you was whether in your opinion you, in 1912, were in a better position to determine what was known and believed in that territory concerning the occurrence of oil than the writer

of this Bulletin who was in there in 1904 in place of 1912?

A. Yes; I think this bulletin takes no account of a paper by Frank M. Anderson, which is very detailed in character.

Q. You have that paper in your possession now?

A. No.

Q. You are referring, are you not, to a paper called "A Stratigraphic Study of the Mount Diablo Range in California"?

A. Yes, sir.

Q. Will you kindly examine that and find some statement by Mr. Anderson indicating in any way in a remote degree that the Elk Hills contain oil?

A. It relates to the structure of the region, the general geologic sequence. It shows a very careful geologic investigation which bears entirely on those problems. The bulletin expressly says that it avoids any reference to economic features, because the work was done for private purposes and not for publication. On page 156 of the bulletin is this—

Q. Can't you answer my question, Mr. Veatch? Will you point **[680]** out anywhere in this paper by Mr. Anderson any statement that indicates in the remotest degree that the Elk Hills are oil territory and were considered such when he wrote that paper in 1905?

A. He did not so state. I am explaining why he did not so state, and am explaining that it says—

Q. You cannot point out any such thing?

A. No statement that the Elk Hills are oil land.

Mr. Mills—I object because you did not permit the witness to fully answer your question.

Mr. Lewers—I don't want a rambling dissertation.

Mr. Mills—He has got down to the point of why he did not declare the Elk Hills oil territory.

Mr. Lewers—I think Mr. Anderson is better able to explain why he did not.

Mr. Mills—If you permit Mr. Veatch to finish his answer, he will explain it.

Q. By Mr. Lewers—The question is whether you can find anything in there which furnishes a foundation for your saying that in 1904 that was regarded as oil territory. I don't care for explanations why it don't say so, but whether it does?

A. On page 168 is this statement: "The greatest thickness of Miocene rocks found in any part of the range is near McKittrick and Temblor," and again on 169, "The most conspicuous member of the Miocene in this section is the Monterey Shales, which have here an aggregate thickness of more than 5000 feet." "The siliceous portion of the Monterey Shales predominates, and generally shows remains of Diatomaceae and other siliceous organisms, with bones and scales of fishes." "The Monterey Shales, apparently, in undiminished thickness, make up the mass of the main range west of McKittrick, but they have not been traced easterly much beyond the Sunset District." **[681]**

Q. "Make up the mass of the main range west of

McKittrick, but they have not been traced easterly much beyond the Sunset District." Does that say anything about the territory? Does it refer in any way to the territory where the Elk Hills are?

A. It is an important geologic observation which bears directly on the questions involved. It shows the detailed character of the work in that region, which was available at that time to determine the problems involved in the Elk Hills. With that knowledge of the range, an examination for a part of a day in the Elk Hills would have satisfied one of the character of that land.

Q. Does that statement that you have read from Mr. Anderson's paper lead you not to attach any importance to the statement in Bulletin No. 32 with reference to the McKittrick District which I read?

A. That and other things which I have explained. And, furthermore, in the preface of this bulletin, on page 156, is the statement:

"The systematic study of the field covered by this paper, and its stratigraphy, was begun for purely economic and private purposes and not for publication; nevertheless, so much data and material of a scientific interest have been gathered, and so much information has been acquired, part of which, though of a practical nature, it is permissible to make public, that some of the more general facts are here offered as a contribution to the geological literature of California.

"The matter and conclusions set forth are the result

of a field-study extending over a period of more than two years, made partly alone, and partly with the co-operation and aid of Mr. Josiah Owen, whose knowledge of the field is both extensive and practical to a high degree, and to whom are due many of the stratigraphic observations here presented. **[682]**

"The advantages for a stratigraphic and faunal study offered by this field are in most respects unsurpassed anywhere. The aridity of the climate, and the soft and crumbling nature of the younger sediments, together with the action of the wind, combine to give excellent and accessible exposures of rock, while in many cases the almost perfect preservation of the shells and other fossils renders the task of identification satisfactory. The structure of the rocks, moreover, is generally simple, and strata are readily followed to almost any extent, particularly along the eastern flanks of the range, to which most of the field work was naturally confined.

"In this connection it is proper to mention the generous interest taken in this work by Professor E. T. Dumble and the many facilities afforded through his kind co-operation."

On page 157. "The Mount Diablo Range, as defined by Whitney, extends along the southwestern border of the Great Valley of California, from Mount Diablo, near the Straits of Carquenez, southeasterly to Pine Mountain, where it unites with the Tehachapi Range, which links it with the Sierras. Thus the Valley of the San Joaquin is surrounded by a contin-

uous barrier of ranges on the east, south, and west, while it is separated by the Mount Diablo Range from the rest of the interior basin occupied by the Salinas and Carisa Valleys. In other words the Mount Diablo Range divides the basin of the California interior somewhat centrally, presenting at the same time magnificent stratigraphic sections that are unsurpassed anywhere in the west in their exposures."

Q. What do you read that for?

Mr. Mills—In response to your question.

A. In response to your question. I was explaining why I think that was of importance.

Q. By Mr. Lewers—Is the region that he refers to there [683] the Elk Hills?

A. No; it is the region west and northwest.

Q. And extends clear from San Francisco south, doesn't it?

A. Not specifically, I think. The paper is restricted in the region from Coalinga to the west of McKittrick.

Q. Isn't it a fact that you read that merely because of the reference to Mr. Owen and Mr. Dumble?

A. No; it is a matter of a statement of how evident the geologic structure was in this region. The character of the exposures is most excellent and, as he says, most probably unsurpassed in the west.

Q. Why was it that you emphasized the names of Owen and Dumble as you read it, as if they rolled pleasantly off of your tongue?

Mr. Mills—I object to such quibbling sort of ques-

tions. You yourself have dragged in the name of Dumble and Owen repeatedly.

A. I was not aware that I emphasized them.

Q. By Mr. Lewers—You did not read it for the purpose of bringing them in?

A. No.

Q. Is there anything in that which serves to contradict the statement made in Bulletin No. 32, issued in 1904 by the California State Mining Bureau, from which I have read?

A. It merely shows this—

Q. Is there anything that contradicts any statement in that bulletin?

A. Not directly.

Q. Then what bearing does it have?

A. I would have to go back to your several questions to know how that came about.

Q. You are familiar, are you not, with various writings **[684]** of Mr. Ralph Arnold on California Oil Fields?

A. Yes sir.

Q. You have examined them all, have you?

A. I think not.

Q. Mr. Arnold is generally recognized as one of the ablest geologists who has written concerning the California oil fields?

A. Yes sir.

Q. And is a man who now has a quite extensive practice as consulting engineer and geologist in connection with the oil fields?

A. Yes.

Q. Are you familiar with a bulletin issued by Mr. Arnold, or written by Mr. Arnold, in 1905, on the Salt Lake oil fields near Los Angeles?

A. No.

Q. In that bulletin he makes this statement: "Anyone at all familiar with the conditions of occurrence of petroleum in the California fields knows that any but the most tentative predictions as to the location of the oil are extremely hazardous. The following suggestions, based on the evidence in hand, although lacking definiteness for the reasons above stated, may be of some assistance to those engaged in developing this field."

Mr. Mills—What page is that?

Mr. Lewers—Page 360 of House Documents, Volume 76.

Mr. Mills—We object to the question as irrelevant and immaterial.

A. I don't know just what the context of that report is. I don't know what the conditions are. But I think your question is answered by the fact that Mr. Arnold now has such a large private practice that if he could not determine with some reasonable degree of accuracy, people would not invest money on [685] his statements.

Q. By Mr. Lewers—In Bulletin No. 406 by Mr. Ralph Arnold, at page 210, he makes this statement: "Assuming the thickness of the McKittrick formation to be about the same in the hills as it is in the

Midway and McKittrick districts—that is, between 1500 and 2000 feet—it seems probable that at the axis of the Elk Hill anticline the oil-bearing zone is from 900 to 1400 feet below the surface." Would you agree with that statement?

A. No; it is contradicted by his own report. It is shown to be erroneous. You will find, in the first place, upon page 13, the statement that this is a preliminary report, and not the way that a final report would be prepared.

Q. Then you think—

Mr. Mills—Let the witness answer.

A. On his map he shows a line of 5000-foot depth on the north side of the Elk Hills. The dip of the hills on the north side is just about the same as the slope of the surface. There has been relatively slight erosion—a few hundred feet altogether—so that taking that line on his map, his map shows the depth from the top of the hill is something like four thousand to forty-five hundred feet. Again, in his own paper, in speaking of the McKittrick formation—on page 82—as to a partial section of the McKittrick formation on the northeast flank of the Buena Vista Hills. There he finds a thickness of a little over 1500 feet. He says: "The lowest beds of this section are probably as far down in the series as any exposed in either the Elk or the Buena Vista Hills." And again he says: "The oldest beds exposed in this vicinity lie in Section 11 at and immediately west of the road." Now, on page 159 he gives a well which

is sunk near this Section 11 in which oil was encountered at 2600 feet. Now, there is 2600 plus 1500, [686] which is 4100, which checks with his 5000-foot line in a general way. His statement is contradicted by his own evidence, and is merely to be read as a statement in a preliminary report.

Q. And you are here maintaining that Mr. Ralph Arnold made a serious error in his prediction?

A. I say there is a serious error in the statement. His prediction on the map is in entire accord with the fact.

Q. You say that was possibly due to the fact that this was a preliminary examination?

A. A preliminary report, which was prepared in haste and in which he did not correlate his various factors.

Q. Even in preparing this preliminary report he used a great deal more time than you did in examintion of the country, didn't he?

A. I don't know that he did in respect to the Elk Hills. In fact, from the map, I should say that he spent very little time in the Elk Hills. The report has covered in a few months a very large area. Parts of that work are in great detail, parts are only touched. That is to be expected from the character of the report. My wonder is that he accomplished as much as he did in the time. I think it is a wonderful piece of work considering the amount of time spent on it. But it is not perfect. Mr. Arnold's investigation was devoted to a very large territory.

My investigation was directed specifically to the matter of the Elk Hills.

Q. You spent pretty nearly four days in there, didn't you?

A. Something of that sort. I think I have testified exactly what time I spent there.

Q. Were you acquainted with G. H. Eldridge in his lifetime?

A. Yes sir.

Q. He was a geologist, wasn't he?

A. Yes. **[687]**

Q. And a very good one?

A. Yes.

Q. Have you likewise Bulletin No. 213 of the United States Geological Survey for 1902, in which at page 306 there is an article by Mr. G. H. Eldridge on the petroleum fields of California?

A. Yes.

Q. Did you examine that bulletin prior to forming your conclusions as to what was known in 1904 in the McKittrick district?

A. Yes. I examined everything that I could possibly find.

Q. In that bulletin at page 309 Mr. Eldridge states as follows: "The structure of the McKittrick district is that of a sharp anticline, an echelon with adjacent anticlines of the range. Along its axis is developed the fault mentioned, which locally is of the nature of an overthrust, the siliceous shales of the Monterey west of the plane being pushed up well

over the sands, conglomerates, and clays of the San Pablo. While this fracture and fold along which most of the producing wells of the district are located, are the most important of the region, other folds and faults exist in lines parallel with these, and at either end of the district one or another of them may become the chief fissure, yet apparently, so far as is at present known, without especial accumulation of petroleum." Did not that indicate to you that in 1902 it was generally believed by competent geologists that those parallel anticlines did not contain oil?

A. No; I think he refers to the anticlines in the hills to the southwest of McKittrick.

Q. Oh, that is your explanation? In 1902 a competent geologist could have determined as well as in 1904, couldn't he?

A. He could. **[688]**

Q. In Bulletin No. 309 by Mr G. H. Eldridge and Ralph Arnold, being a bulletin covering the Santa Clara Valley, Puente Hills and Los Angeles oil districts in Southern California, dated 1907, at page 196, Mr. Arnold makes this statement: "Anyone at all familiar with the conditions of occurrence of petroleum in the California fields knows that any but the most tentative predictions as to the location of the oil are extremely hazardous. The following conclusions, based on the evidence in hand, although lacking definiteness for obvious reasons, may be of some assistance to those carrying on development in the Los Angeles fields." Didn't that indicate to you that

two years later, after he made his first statement of that kind, that Mr Arnold was still of the opinion that any predictions as to the existence of oil in any district were extremely hazardous?

A. That is a very broad statement.

Q. Would you agree with it?

A. Not in detail. I think Mr Arnold would not agree with it in detail.

Q. Mr Arnold can speak for himself. Again, in a bulletin, being Bulletin No. 321 concerning the Summerland district in Santa Barbara county, Mr Arnold in 1907 makes this statement at page 56: "It must be continually borne in mind that absolute determination of the possibilities of occurrence or non-occurrence of oil in any one locality, by work on the surface, even when augmented by a study of the known underground conditions in developed territory, is not possible. The best that can be done is to calculate the degree of probability on the basis of a summation of indications and structural conditions." Didn't that indicate to you that in 1907 his original opinion had even become stronger?

A. No; that is a perfectly fair statement. That is what [689] you do. You calculate the probability and you calculate the probability in coal just the same way as you calculate in the probability in the Elk Hills. It is very great. It has become such a probability that it is a business proposition to develop it.

Q. You bring in coal again. There is no coal out there, is there?

A. Coal and oil occur in stratified deposits and are analogous in much the same way.

Q. There are other deposits that occur in the same way. For instance, placer gold?

A. They do not occur in the same way.

Q. Are you at all familiar with the placer gold deposits in the Tuolumne district?

A. Only in a general way.

Q. Don't they occur in the same way?

A. No.

Q. You don't know anything about them really?

A. I said I only knew of them in a general way.

Q. Would you agree with Mr. Arnold's statement made in 1907 that—the same page—"The absolute determination of the possibilities of occurrence or non-occurrence of oil in any one locality, by work on the surface, even when augmented by a study of the known underground conditions in developed territory, is not possible"? Do you agree with that?

A. What is the next statement?

Q. Do you agree with that?

A. No, not unless you read the balance of it. It is a fair statement to have the rest of the statement.

Q. Now, three years later, in Bulletin No. 398 on the Coalinga district, Mr Arnold says—and this is the bulletin in which he discusses the Kettlemen Hills field—at page 235: "It must **[690]** be borne in mind, however, that absolute determination, by work on the surface, of the occurrence or non-occurrence of oil in any one locality is not possible. The

best that can be done is to calculate the degree of probability on the basis of surface indications and structural conditions." Do you agree with that statement?

A. Yes. He is using it in the scientific sense absolutely. I have stated repeatedly that no reputable geologist would guarantee the presence of oil in any place. He would simply say the conditions are such as to warrant development, and those conditions in the Elk Hills are ideal.

Q. Do you know what Mr Arnold's experience has been in connection with the Kettleman Hills referred to in this Bulletin 398?

A. No, only in a general way. I know they are drilling there.

Q. And have found no oil?

A. No, but they are still drilling. I think they will get oil. I think the Kettleman Hills is good territory.

Q. Again, in 1910, in Bulletin No. 406, concerning the McKittrick-Sunset region, Mr Arnold makes the statement on page 205: "It must be borne in mind, however, that absolute determination by work on the surface, of the occurrence or non-occurrence of oil in any one locality is not possible. The best that can be done is to calculate the degree of probability on the basis of surface indications and structural conditions." Did it at all seem significant to you that he should repeat that statement year after year?

A. Yes. I agree with that statement. I believe

Mr Arnold's professional word is based on that statement. I think that the statement there of absolute determination is correct. The matter cannot be absolutely determined, but you can determine the degree of probability and that degree of probability is infinitely **[691]** greater than it can occur in any lode mining.

Q. Do you know anything about lode mining?

A. I have stated that I have not been in the lode-mining field.

Q. Why do you make such a comparison?

A. You have repeatedly re-questioned me on the subject after I had told you that I had not had personal experience. You continued the same line of questions which I answered to the best of my knowledge and belief, and I am answering now to the best of my knowledge and belief.

Q. Did I ask you to make any comparison at this time with lode deposits?

A. No.

Q. Then you volunteered that out of your lack of knowledge of lode conditions?

A. No, not at all. That is a very unfair statement. I have had quite a little training in lode deposits, but not in the field.

Q. The prediction made by Mr Arnold in Bulletin 406 of oil in the Elk Hills and other portions of the district have already been to a large measure disproven, have they not?

A. I think not.

Q. Mr Robert Anderson has succeeded Mr Arnold in the work of the United States Geological Survey in the California oil fields?

A. I think you can say so, in a general way.

Q. And he is a competent geologist, is he not?

A. Yes.

Q. In Bulletin No. 431, issued in 1911, concerning oil prospects of Cantua-Penoche region in California, and concerning the Coalinga oil district, Mr Anderson makes this statement, speaking of the first district—Cantua-Penoche: "For an **[692]** undeveloped region such as this, in which the character of the rocks makes it not impossible for oil to be present, but which for the most part has not been subjected to experimental test by the drill and in which the local tests made have been inconclusive, it is of course impossible to reach positive conclusions as to the occurrence of oil in commercial quantities at depths". Do you agree with that?

A. I don't know that region.

Q. As a general statement?

A. It may be true in a certain locality and not in another. You will notice that he mentions no seepages, as in the Elk Hills region, and the occurrence of wells. There are several hundred wells. He mentions none of them. And in that respect it differs entirely with this region.

REDIRECT EXAMINATION OF A. C. VEATCH

By Mr Mills:

Your attention was directed by Mr Lewers to a

statement of Mr Youle at page 1047 of the reporter's transcript, and I will read to you from the same page —beginning on the same page—a question and answer which was made later. "—That is, the opinions concerning the geology of that territory or any other territory have suffered a material change as a result of the work of the drill, haven't they? A—Not on your life. I say that the depth that a man would say —the depth of a formation—in that early day, that might thicken up or thin up and he couldn't see, was all bosh; and the fellows don't do it nowadays. Geologists, in those days, like LeConte, made predictions that were not true; but geologists since then have found out their mistakes and don't do it. I say, a geologist will say of those hills toward the Elk Hills and that whole **[693]** country, 'There is a good oil territory', but as to the depth, I don't see how they can tell." I will ask you if in a general way you agree with that statement?

A. Yes. I think the depth can be approximated, but it is such an approximation that it is not an exact statement.

Q. Now, there is one method of determining the extent and persistence of imbedded stratifications containing oil, and you mentioned only one of the many ways for determination of such, where minerals occur in stratified deposits. You were asked by counsel if you were not the pioneer in the advancement of that simple process of determination, which Mr. Lewers was kind enough to characterize as the hori-

zon theory. Do you know whether that method has been applied in any other kind of lands in other stratifications, for example, in coal measures?

A. Yes; extensively used by geologists in classification of coal lands.

Q. I have here Bulletin No. 424 issued by the United States Geological Survey, and entitled "The Valuation of Public Coal Lands," by George H. Ashley, in which the author at page 7 states: "The object of this paper is to present briefly some of the facts on which the Department's regulations for classifying and valuing coal lands are based. The information already at hand in the Survey has been supplemented by data obtained in the fall of 1909 by the writer in Colorado, Wyoming and Utah, concerning the values of coal lands in those states." In a foot-note the writer of the paper says: "The writer, who is a member of the Survey's land-classification board, has for many years given special attention to the economics of coal. One of his earliest reports on this subject, bearing the title 'The Finances of Coal' was published in 1899 (23rd Annual Report of the Indiana Department of Geology and Natural Resources, pages 1490-1517)." Mr. Veatch, do you recognize any analogy [694] between the determination upon geologic evidence of the extent and persistence of coal measures and that of the persistence and extent of areas carrying oil?

A. Yes, in this respect: That you determine the persistence of the porous bed which contains the oil in an analogous way.

Q. Do you know whether that horizon theory, so expressed, has ever been used in the classification of coal lands?

A. It has.

Q. And you read at page 25 in this report: "Thus, on an undeveloped tract of land there may be only two openings on the coal, several miles apart, each showing workable coal. If this be the extent of the available knowledge, it may be thought safe to assume that only a few acres of workable coal exist around each of the two prospect openings. If, however, it may be inferred from the stratigraphy that the two openings are on the same bed, and if, by means of openings a few miles farther north, the coal can be traced with great regularity for fifty miles northward, and the same way in other directions, the geologist may be justified in assuming that the bed maintains a workable thickness under the whole tract, and the land may be valued accordingly, some allowance being made for uncertainty. Again, if it is known that the bed just considered is usually underlain or overlain by other regular workable beds, even if these other beds have not yet been discovered on the land in question, such knowledge would justify the conclusion that these other beds are probably present, a conclusion that would increase the estimated value of the land, though with a great allowance for uncertainty.

"If any or all of the beds are inclined to be pockety or irregular, the allowance for uncertainty must be correspondingly large. Where they are so irregular

or pockety that a large percentage or most of the land in developed areas is barren, [695] the unprospected areas must be rated as non-coal land until the presence and the thickness of the coal has been actually demonstrated.

"Another condition that renders difficult the valuing of coal land is common in the West, where knowledge of the coal beds is derived entirely from exposures along an outcrop that extends in a more or less nearly straight line. How should the lands back from the outcrop be valued? In the East and parts of the West the mountains form—that is, it follows in and out of one ravine or valley after another, zigzagging back and forth in every direction. In such a region it is usually possible to get sections in different directions at right-angles to each other and to observe any tendency toward thinning in any direction. But in parts of the West where the topography is young and simple and the country is little dissected, it happens in many places that the outcrop extends, say, north and south, and there is little or nothing to show whether the coal holds its thickness back from the line of outcrop in an east or west direction. Under these circumstances experience has seemed to justify the assumption that the coal will run as far back from the crop at any one point as from that point to the nearest place along the crop where the coal becomes unworkable. Thus if a given coal has a continuously workable section for ten miles along the face of an escarpment, it is assumed that at the middle of such an outcrop the coal may extend back from the crop

for five miles and for correspondingly less distance as the two ends of the workable outcrop are approached, so that the area assumed to be workable is roughly a semicircle with a radius of five miles." I will ask you now, Mr. Veatch, whether you agree with that statement as applied to the geology of oil in a general way?

A. I do, modifying the factors in the geologic structure **[696]** which must be taken into special consideration, which has been done in this case.

Q. Have you made any special examination of Section 31 in Township 30-23? That was land which was patented to the Southern Pacific Railroad Company prior to the patent in issue in this case.

A. I have.

Whereupon the further taking of testimony herein was adjourned until Wednesday, May 15th, 1912, at 9:30 o'clock A. M.

On Wednesday, May 15th, 1912, at 9:30 o'clock A. M., the further taking of testimony herein was resumed.

REDIRECT EXAMINATION
OF A. C. VEATCH resumed.

Q. By Mr. Mills—Now, Mr. Veatch, what was the result of that special examination (referring to last question asked prior to adjournment yesterday, which question is read by the reporter) that you made of Section 31? You may state in general why you made the examination and what the results of your observations were as to the character of that land.

A. I followed the ridge down from McKittrick—the group of folds which lies south of McKittrick—until I was past the portion where the greater problem appears. And in the valley in section 36, which adjoins 31 on the west—36 of 30-22—I found a number of dips in the porous beds that overlay the diatomaceous shale, and a series of topographic forms—strike-ridges—which connected these dips across the country, and all those dips there are to the northeast. And on the other side of 31 and 32, on the southwest slope of the Elk Hills, I found very marked dips to the southwest, showing that this area **[697]** lies in the syncline between the Elk Hills anticline and the McKittrick anticline. In the southeast corner of Section 31 there is the end of a short plunging fold—a little minor fold in the bottom of the syncline—which is possibly slightly faulted. The dip observations in 36 enabled me to arrive at some approximate idea as to the thickness of that series in the Elk Hills.

Q. By Section 36, what do you mean?

A. In 30-22, that adjoins Section 31 of 30-23 on the west.

Q. On cross-examination, Mr. Veatch, you were asked whether you had ever seen a statement made by Josiah Owen that he was a geologist in the employ or on the payroll of the Southern Pacific Railroad Company. Will you state what paper you saw when you made that observation?

A. It was the transcript of testimony regarding a land contest before the land office.

Q. I have here a copy certified by the recorder of the General Land Office to be a true and literal exemplification of certain testimony of Josiah Owen, filed in a contest in the Visalia local land office, known as 0321, and I will ask you to read it for the purpose of identifying, if you may, the copy of the original that you saw.

A. I should say this was a photograph of the original record that I saw.

Mr. Mills—We offer this certified copy, exemplified under the seal of the General Land Office, in evidence as government's Exhibit Z.

I might ask you, in this connection, about what date was that contest?

A. I think it was in December, 1908.

Q. Do you remember the title of the case? [698]

A. No.

Q. Was it a case in which Mr. Owen was one of the contestants?

A. I believe so.

Mr. Lewers—I object to the introduction of the exhibit offered in evidence on the ground, first, that it is purely hearsay, without any identification indicating that it is in any way connected with this case and, consequently, that it is a fugitive extract from a larger record, omitting the context entirely, so that it is impossible to tell from it the entire circumstances under which the evidence was given and impossible to determine whether or not in addition to the extract offered there may not have been other testimony in-

dicating a possible connection with the issues in this action, in the matter of time. I object on the further ground that it appears from the testimony of the witness now on the stand, although it does not appear from the extract itself, offered in evidence that this was testimony given in 1908—four years after the time when the lands in question in this suit were patented to the Southern Pacific Railroad Company and, for that reason, it is not relative to any issue in this case because it does not follow because Mr. Owen may have been employed in 1908 incidentally as appears from the extract, that he was in 1903 or '04 or at any other time.

The certified copy of transcript of testimony of Josiah Owen last referred to and offered in evidence is marked "Plaintiff's Exhibit Z".

Mr. Mills—I will ask Mr. Lewers now whether he will stipulate into the record that Josiah Owen was a geologist either in the employ of the Southern Pacific Railroad Company or of the Southern Pacific Company, defendants in this suit, before the patent in issue was issued by the government to the Southern [699] Pacific Railroad Company.

Mr. Lewers—In the light of the character of testimony which has been introduced by the government, I must respectfully decline to stipulate in any way. I expect to show the actual facts when we come to our case.

Mr. Mills—I will also ask Mr. Lewers, counsel for all the defendants except the Equitable Trust Company, whether he is ready to stipulate that one E. T.

Dumble was employed as a geologist by either the Southern Pacific Railroad Company or the Southern Pacific Company prior to the issue of the patent in controversy in this case.

Mr. Lewers—I make the same reply.

Q. By Mr. Mills—Mr. Veatch, Dr. Branner testified that the word "mineral" now had a broader meaning than formerly. Do you agree with that statement?

A. Yes. In this way. That those who have attempted to restrict the word "mineral" in the manner explained in my former testimony, have found that their position was untenable, and there has been a gradual tendency to return to the original and common usage of the word. And in this respect it is correct to say, as Dr. Branner has said, that among scientific men generally the word "mineral" has a broader meaning than it did several years ago. Referring to the original and common use of the word, it is to be noted that it comes from the same root as "mine" and "miner", words of great antiquity in our language. We have "mine" and "mineral". It refers to any substance taken from the ground. Thus, in Bakewell's Mineralogy, which was published some years before 1866, there is the statement that the term "mineral" is in common life generally applied to denote any substance dug out of the earth or obtained from mines. In connection with petroleum mining, it should be pointed out, that the earliest extraction of this mineral from the earth was [700] by means of pits or shafts. One of the earlier explorers in Bur-

mah, referring to a period about 1700, speaks of an Oleum Terrae obtained from such shafts which was so highly regarded by the rulers of the country that they reserved it for their own use and considered it more valuable than gold. Later Captain H. Cox visited this locality and, in 1799, used the word "petroleum" in describing this deposit. When the word petroleum was first used, I don't know, since I have not made a special investigation of the subject. I recall the reference to Burmah because I recently had occasion to look up the matter in response to an inquiry in reference to that country. In this country as early as 1833 B. Silliman, Sr., described the petroleum springs, using the word "Petroleum", in Allegheny county, New York, and the literature has been filled with references to rock oil and petroleum since that time. In 1865 the word "petroleum" was used in connection with the deposits in California by B. Silliman, Jr.

Q. On page 23 of Bulletin 46, issued by the Geological Survey of the United States, by Ralph Arnold and Harry R. Johnson, frequently referred to by counsel for defendants, I find this statement, under the heading "Land Classification": "The following areas within the McKittrick-Sunset oil region have been clasisfied as mineral lands and such of these as yet belong to the government have been withdrawn, etc." And on page 27 I find under that classification included all of Township 30 South, Range 23 East, which includes the lands involved in the suit, which

is thus classed as mineral land because of its oil value. Do you agree with that classification?

A. I do.

Q. It appears from that classification that, weighing fully all the uncertainties and all the structural conditions and all features connected with the accumulation of petroleum [701] in commercial quantities, Mr. Arnold was willing to go on record in that bulletin that all the lands in Township 30 South, Range 23 East, are mineral lands because of their oil value. Now, you have stated that you were chairman of the Oil Land Classification Board of the United States Geological Survey. Will you now state whether that board ever considered the statement made by Mr. Arnold in that bulletin in its attempt to classify those lands for their character?

Mr. Lewers—To which we object as calling for hearsay testimony as to the proceedings of any such board, and I desire to ask a preliminary question:

Q. By Mr. Lewers—Are those proceedings in any way a matter of record?

A. In part, yes.

Mr. Lewers—I object on the further ground that the record is the best evidence.

Mr. Mills—In response to that objection I will state that the witness has already testified that he was a member of that board and that he was chairman of that Oil Land Classification Board and must necessarily be familiar at first hand with the proceedings that he will now testify to.

Q. By Mr. Mills—I will ask this further ques-

tion of the witness in this connection: Whether that determination was made during the time you were a member of that board and while you were present.

A. It was.

Mr. Lewers—We nevertheless insist on our objection. A member of a deliberative body is not entitled to testify concerning the proceedings of that body merely because he is a member, if those proceedings are a matter of record, unless it is first shown that the record is destroyed or lost or for some reason is unavailable. **[702]**

Q. By Mr Mills—Mr Veatch, you may state in general whether that board agreed with the classification as set out by Mr Arnold in Bulletin 406, referred to by me.

Mr Lewers—To which we interpose the same objection.

A. It did. That classification was made before the bulletin was published, and the classification agrees exactly with the classification of the board, which was an approval of Mr Arnold's conclusion.

Q. And that bulletin was issued in 1910? At the time the report was considered by the Oil Land Classification Board, will you kindly give us for the purpose of the record the names of those who composed that board in the United States Geological Survey, at the time this classification was made by Mr Arnold, what their experience was and what they are now doing?

A. The members of the board at that time to the

best of my recollection were Ralph Arnold, Joseph A. Taft and myself. I was the chairman.

Q. Since that time what has become of Ralph Arnold?

A. He has severed his connection with the Geological Survey and is practicing as a consulting geologist.

Q. Where? At what point?

A. The California oil fields and generally throughout the country and the world.

Q. Do you know from your acquaintance with him and from your own knowledge that the advice of Mr Arnold has been sought by practical men in the oil business who invested any sums of money on his advice?

A. Yes; to the best of my knowledge and belief.

Q. By Mr Lewers—Based on what Mr Arnold told you?

A. In part.

Mr Lewers—I move that the statement be stricken out as hearsay. Mr Arnold is available. [703]

Q. By Mr Mills—Do you know from the published reports of Mr Arnold and from your own information where his experience has been largely confined to in the oil matters?

A. At the time I was a member of the board, his experience has been almost exclusively—as far as I know exclusively—in California.

Q. You have mentioned the name of Mr Joseph A. Taft. Do you know whether he has had any special knowledge of oil lands anywhere?

A. At the time that I was a member of the land board, he had knowledge of the mid-continental field, which is practically the Oklahoma, and possibly some of Kansas. His knowledge particularly related to Oklahoma.

Q. Has he been active at all to your knowledge in the classification of coal lands at the time this report of Mr Arnold was considered by that Classification Board?

A. Yes; the greater part of Mr Taft's work and one of his qualifications, and the reason he was appointed, was his very wide experience in coal land classification. He segregated the coal lands for the Indian nations in Indian Territory, and did extensive work in classifying and examining valuable coal lands on which there was no exposure of coal, in Colorado and Utah.

Q. And in connection with what companies, if you know?

A. That was for the government. The Utah Fuel & Iron Company had obtained through statements that these lands were non-mineral, patents to large areas in Utah, and they were recovered to the government through Mr Taft's testimony on the geological deduction that they were coal land.

Q. Do you know whether Mr Taft is now connected with the United States Geological Survey?

A. No; he resigned his position. My understanding is that he is in charge of the work of the Southern Pacific Company in [704] Colorado and adjoining regions under the supervision of Mr E. T. Dumble.

Q. You have referred to this company. What company was that?

A. The Colorado Fuel & Iron Company.

Q. At the time this report was being considered for the purpose of classifying the lands in 30-23, which includes the lands in this suit, were you at that time a member of the board?

A. Yes.

Q. In what capacity?

A. As chairman.

Q. Will you state what the method of that board was with reference to determining the official classification of these lands?

A. The data collected by any geologist in the field was presented to the board generally in the shape of his map, and he explained the geologic features of it to the board.

Q. You mean Mr Arnold?

A. In the case of Mr Arnold, yes. It was done in that way. Each map was presented and he explained the features, and the matter was passed upon from his statement. Questions were asked as to any point which might be in doubt by any member of the board.

Q. Can you state whether the conclusion of the board as to the classification of the land embraced in that list which includes Township 30 South, Range 23 East, and, of necessity, the lands in this suit, was reached after a careful investigation of the facts upon which the report was based?

A. Yes; that was the method of its classification.

The matter of Mr Arnold's statement in the matter.

Q. Now, Mr Veatch, so much has been said about this report, [705] that I will ask you now whether at the time the classification to which you have referred was made of this oil land classification board, there was any thought at that time of this present suit, or did you have it in mind?

A. No; I heard nothing whatever of it until very recently.

Q. Have you ever heard of this suit at that time?

A. No.

Q. Was the conclusion reached entirely independent of any consideration of a proposed suit, so far as you know?

A. Entirely so. The classification took no account of titles or vested titles. It was merely a classification of mineral lands without regard to ownership.

Q. Mr Veatch, at page 551 of the record—that is, the reporter's transcript—in the testimony of Mr T. E. Klipstein, who was secretary of the Eight Oil Company, it appears that Mr Klipstein testified to the land holdings in Kern County, California, of that company, as follows: "All of the north half of Section 31, all of the south half of Section 32 in Township 31 South, Range 23 East, M. D. M.; all of the south half of Section 4, Township 32 South, Range 23 East; all of Sections 26, 30, 32, 34, in Township 30 South, Range 24 East; all of Sections 20, 22, 24, 26, 28, 30, 32 and 34, Township 30 South, Range 23 East; all of Section 4 and the north half of Section 8, Township 31 South, Range 24 East."

Mr Mills—Mr Lewers, I desire to have these holdings of the Eight Oil Company, in which it has been testified that the geologists known as the late Josiah Owen and E. T. Dumble, who have been referred to in the testimony as geologists of the defendant Southern Pacific Railroad Company or the Southern Pacific Company, were interested, added to government's Exhibit I, so that the court may know what holdings that oil company, in which these gentlemen were interested, had in connection with **[706]** the lands in this suit. Have you any objection?

Mr Lewers—I have. Obected to on the ground that Exhibit I was introduced for the urpose of showing the conditions that existed prior to the granting of the patent in this case. I do not concede that Exhibit I does show the conditions, because it already contains matters that happened since that time. And I object to any change of that exhibit by adding things that, according to the testimony, did not take place until 1908, or '09, or '10, and I object on the further ground to anything being added to that map on the ground that it appears from the testimony of the various witnesses who testified concerning the Eight Oil Company that this land wos located for fuller's earth and not for oil, and located subsequent to the granting of the patent in this case.

Mr Mills—You will observe, however, that it is called "The Eight Oil Company" with an underscore under the word "Oil".

Mr Lewers—I observed that very carefully.

Mr Mills—My only purpose in asking whether you made any objection to adding it to the exhibit was simply to simplify the matter for the court, so that taken in connection with the lands in suit, it might be introduced at once on one exhibit, showing the lands which these geologists must have believed to be good oil lands at the time they invested money in the Eight Oil Company."

But, in view of your obection, which may or may not be valid, and in order to avoid any trouble, I will introduce another map showing it.

Q. By Mr Mills—I show you this map and ask you whether you had anything to do with the coloring of certain sections delineated on the map and, also, what the map is.

A. The map is a duplicate of the photographic copy of the base used on Exhibit I. And this map I have colored in in red the lands involved in this suit. **[707]**

Q. This is a duplicate copy of the base-map used by the government as Exhibit I?

A. Yes.

Q. Now, will you in some way, by colored pencil, indicate on this map the holdings of the Eight Oil Company as I read them: All of the north half of Section 31 and all of the south half of Section 32, in Township 31 South, Range 23 East. You are using a blue pencil, are you?

A. Yes.

Q. All of the south half of Section 4, Township 32 South, Range 23 East; all of Sections 26, 30, 32 and

34 in Township 30 South, Range 24 East; all of Sections 20, 22, 24, 26, 28, 30, 32 and 34 in Township 30 South, Range 23 East; all of Section 4 and the north half of Section 8 in Township 31 South, Range 24 East. Now, (witness having complied with Mr. Mills' resquest) will you make a proper legend indicating what the colors on that map mean? Mark it "Lands of the Eight Oil Company."

A. (Writing) "Lands of the Eight Oil Company in which it was testified to that the late Josiah Owen and E. T. Dumble, alleged to be geologists of the Southern Pacific Railroad Company and Southern Pacific Company, became interested."

Q. With the exception, Mr. Veatch, of what you have now placed on the map, is this map in all respects as fully qualified to be admitted in evidence as government's Exhibit I?

A. I think it is.

Mr. Mills—We offer this map in evidence as government's Exhibit AA.

Mr. Lewers—Before this is introduced in evidence and preliminary to any objection to the map itself, I ask that the legend put on the map be stricken out on the ground that it is a conclusion as to the testimony and involves a matter that is for the court to determine. [708]

Mr. Mills—I will say that the legend as it now appears on the map showing the names of the colored sections were as dictated by me as an aid to the court in determining what lands Dumble and Owen became interested in.

Mr. Lewers—That merely verifies my objection, and I renew it. And I object to the introduction of the map on the ground that it asserts matters occurring long subsequent to the patents involved in this action, and for that reason is not relevant to any of the issues in this case.

Mr. Mills—You admit, do you not, that the oil character of a portion of these lands marked in blue pencil, in which Professor Dumble and the late Josiah Owen became interested, according to the evidence already introduced, is relevant to the issues in this case, do you not?

Mr. Lewers—Not at the time to which this exhibit refers.

Mr. Mills—You may take the witness

RECROSS-EXAMINATION OF A. C. VEATCH.

By Mr. Lewers:

Q. Mr. Veatch, when did you first read the transcript or any portion of it referred to in government's Exhibit Z, purporting to be part of the testimony of one Josiah Owen?

A. Probably two months ago.

Q. Where?

A. Here.

Q. How did you come to read that?

A. It was evidence by Josiah Owen on the land, and I thought it would be possibly interesting.

Q. On what land?

A. On this land somewhere in the Midway country.

Q. Anywhere in the vicinity of the Elk Hills?

A. It is near Midway. [709]

Q. Not in the Elk Hills?

A. No.

Q. And you read the record for the purpose of gaining information concerning the Elk Hills?

A. No; I wanted to see what he said there.

Q. Why did you want to know what he said?

A. I wanted to gain some idea of the ability of Mr. Owen as a geologist, in order that I might fairly judge regarding what conclusions he might have made prior to 1904. I know of no publication by Mr. Owen, and that was one way of checking the kind of work that he was doing.

Q. That is, you were anxious to know what Mr. Owen knew prior to 1904?

A. No; I was anxious to clear in my mind the ability of the man.

Q. Why was the ability of Mr. Owen of importance to you?

A. I was asked to report whether a geologist going into the Elk Hills in 1904 would have considered it oil land. I understood Mr. Owen had been in there and, in order to pass upon that matter intelligently, I wanted to know something of his ability.

Q. Was he, according to the issues that you had in your mind to determine, the only geologist to be considered?

A. I thought he was an important one because it was stated to me that he was an employee of the Southern Pacific Railroad Company and, therefore, would be an important geologist.

Q. You were endeavoring to ascertain what a competent geologist in 1904 would have thought?

A. Yes.

Q. Were you endeavoring to ascertain what Mr. Owen thought?

A. Only as I regarded him as one of the geologists that was in that region.

Q. Were you not endeavoring to find testimony connecting [710] Mr. Owen in some way with this case?

A. Only in the way that I have stated.

Q. Well, you were, were you not, endeavoring by every means in your power to find testimony connecting Mr. Owen with this case?

A. It was stated to me that he was in the hills.

Q. Were you not endeavoring to find testimony connecting Mr. Owen with this case?

A. Only in the way I have stated.

Q. Where else did you endeavor to find testimony connecting him?

A. I looked over the geological literature to see if he published anything.

Q. You were anxious, were you not, to find some connection with Mr. Owen?

A. No; I have no personal interest in this case in any way.

Q. Where was it that you examined this record?

A. In Los Angeles, in Mr. Mills' office.

Q. The entire record?

A. I think so.

Q. And then you examined more than this mere scrap which has been introduced in evidence?

A. Yes.

Q. And did you in that record find any discussion of the Elk Hills?

A. No.

Mr. Lewers—Have you that record, Mr. Mills?

Mr. Mills—I don't know whether I have it or whether I returned it to the General Land Office.

Mr. Lewers—If you have it I would like to have it.

Q. Do you find anywhere in Exhibit Z any statement showing the knowledge that Mr. Owen had of the Elk Hills? [711]

A. No; that was brought out merely on your question to me the other day.

Q. Was it brought out by any question of mine?

A. That is my impression.

Q. Wasn't that purely a voluntary statement on your part interposed for the purpose of bringing Mr. Owen into the case?

A. I think not. The record will speak for itself.

Q. Isn't this in your opinion and to your understanding simply a scrap or extract from that testimony for the purpose of showing that Mr. Owen was connected with the Southern Pacific Railroad Company?

A. The purpose for which that is introduced the attorney can speak of.

Q. Did you not consult with the attorney and talk over the introduction of this particular scrap of evidence?

A. I don't believe so.

Q. Did you not call his attention to this particular scrap of evidence?

A. I did in the testimony that I read over.

Q. And you called his attention to other matters which would tend to show the connection of Mr. Owen with the Southern Pacific Railroad Company?

Mr. Mills—I object to that question and any further questions of this witness of that character, for the reason that the witness has stated that he has no personal interest whatever, and that he is brought here as a government witness in a case in which he can have no possible feeling one way or the other except as an upright citizen to see that right is done. This is no controversy between individuals.

Mr. Lewers—I propose to show before I get through with it that it is.

Mr. Mills—You will have some difficulty in showing that. [712]

A. I do not recall specifically. I may say in a general way that I have endeavored in every way within my power to get the facts in the matter in order that there might be no injustice done in any way. In other cases and in other lines my opinion was asked and the statement was made that if I did not feel that they were mineral lands, the matter

would be dropped. In going over this matter from all sides that I possibly could, I felt that these were mineral lands and that the railroad company must have known it. That is merely my opinion, and, as such, I thought they were not entitled to it.

Q. And after you reached that conclusion you endeavored, so far as was within your power, to assist in gathering evidence to show those facts?

A. Simply gathering the truth and endeavoring to determine what the truth was in the matter.

Q. What you regarded to be the truth?

A. No; what the truth is.

Q. That is, you do not believe that in any of your investigations you could possibly be misled or in error as to what the truth is?

A. Oh, human beings are not infallible. But, to the best of my ability, I have carefully tried not to be misled in any particular.

Q. Does the fact that this extract, Exhibit Z, shows apparently that Mr. Josiah Owen in 1908 was on the payroll of the Southern Pacific Railroad Company, have any scientific value to you?

A. No; I have explained that the reason I read that testimony was to form an opinion of Mr. Owen's ability as a geologist.

Mr. Mills—Why don't you ask the witness the question what his ability was?

Q. By Mr. Lewers—I call your attention to the first por- **[713]** tion of the page contained in Exhibit Z and to a checkmark at the top, and ask you if you made that checkmark?

A. No; I did not.

Q. Was it there when you first examined the exhibit?

A. I don't remember.

Mr. Mills—If you ask me who made the checkmark, I will tell you.

Mr. Lewers—If you want to go on the stand, I will ask you a number of questions.

Mr. Mills—You have been testifying into the record without going onto the stand. I merely offer a suggestion.

Mr. Lewers—I suggest, in the meantime, if you have any objections to make, make them; if not, don't say anything. That is merely a suggestion.

Q. How long were you a member of the classification board to which you have referred?

A. Two years. I was the first chairman of the board and was connected with the board till I went to South America.

Q. When did you go to South America?

A. In the fall of 1910.

Q. When was it that the board passed on the recommendations of Mr. Arnold contained in Bulletin 406 as to the withdrawal of certain lands?

A. To the best of my recollection, it was the spring or summer of 1899.

Q. And Mr. Arnold, you say, was a member of that Board?

A. Yes.

Q. And he explained his reasons and grounds?

A. Yes.

Q. And you acted upon them?

A. Yes.

Q. You did not veto any of his suggestions in any respect? **[714]**.

A. That I don't remember. The matter was gone over till we reached a common conclusion.

Q. Were not your instructions as members of that classification board to withdraw all lands that might by any possibility in the next hundred years be developed?

A. Are you speaking of classifications or withdrawals?

Q. Withdrawals. My question is very distinct.

A. As to withdrawals. These are classified lands and there are large areas withdrawn pending field work, and which may contain large areas which are not oil lands. There is a great distinction between a simple withdrawal which does not assert that it is mineral land, and a classification which does.

Q. Let us take your classification then. The more limited area, as you put it. That was your test from the economic side as to what lands should be classified as oil lands?

A. In oil lands it was rather the conservative basis of the depth to which drilling had already reached. I think that probably should be extended to a much greater depth, so that it may be co-ordinated with coal in which we classify coal lands at much greater depth than they are now mining.

Q. That does not answer my question. What lands did you classify as oil lands?

A. In general, lands up to the 5000 feet of depth.

Q. Did you classify as oil lands lands that you thought or that were reported to you might contain oil, or lands upon which oil had actually been discovered or was known to exist?

A. Lands on which the geologic evidence indicated that oil occurred.

Q. That oil occurred or might occur?

A. That oil occurred. It is a matter of geologic deduction. If the classification were limited to only the area proven by actual wells, it would be a very small area, and even then **[715]** your question, to refine it to the utmost, would be whether a well that actually yields oil would actually prove the ground for more than the ten inches at the bottom of the well.

Q. Then, in fact, you did in classifying as oil lands include lands that you thought from merely surface indications might contain oil?

A. Which we believed contain oil.

Q. From surface indications?

A. From geologic evidence.

Q. And that in many if not most of the instances was merely surface indications—what you call geologic evidence?

A. Yes; extending over a wide area. Geologic conditions on the surface of a limited area might not allow you to arrive at an exact conclusion. But when you take the evidence of a wide area, the conclusion is very sound.

Q. And in your classification of oil lands made in 1909 in the vicinity of McKittrick and in that coun-

try generally, you included portions, if not all, of about 70 townships, didn't you?

A. I don't remember.

Q. Have you Bulletin 406 there?

A. Yes.

Q. Will you look at page 24?

A. Yes.

Q. Is it not a fact that beginning at page 24 of Bulletin 406 and extending to near the middle of page 31, there is a list of lands withdrawn covering practically 70 townships?

A. There is a portion of those that are withdrawn and not classified, and I have explained the difference between classification and withdrawal before.

Q. Is it not a fact that beginning at page 24 and extending to the middle of page 29, in fine print, there are 55 townships [716] classified as oil lands?

A. I have not counted them. There may be portions of that number. But if you will check it I think you will find not more than six or ten—1, 2, 3, 4, 5, 6—in which the total township is classified.

Q. How many in which the greater portion is classified?

A. That I would have to check over.

Q. Why was it that in certain townships you only classified a portion of the township?

A. Because the remainder was not oil land or on which the evidence was not sufficient to classify. They may have been either withdrawn or left as they were.

Q. And they may have already been patented, may they not?

A. In this classification no account was taken of the title to the land at all. They were classified irrespective of the title.

Q. And was any account taken of whether any productive developments had been going on on any of that land?

A. Yes; that follows in the geologic determination of the region. The geologic determination takes into account all the economic facts.

Q. And you have since ascertained that over a great portion of this land included in your classification of 1909, absolutely no oil has been discovered in paying quantities?

A. I should say that the great part of it is not yet developed. It is not shown that it is not oil land, by any means.

Q. You mean it has not gone deep enough?

A. There are several factors involved: The factors are depth, the factsors of faulty well drilling, I have explained; and I have explained the small production which means to me ultimate development when the present large supply is reduced, and the price of oil will increase and will justify the development of [717] a portion of those other areas which are not now developed. I might add that I regard the Elk Hills, and did at the time,—that in the best of the territory there is a portion of that territory lying down the dip below this porous upper member of my three-part series, in which your oil would be

in the lower sands at considerable depths. That land I regard as very much less valuable than the lands in the Elk Hills.

Q. In your determination of this classification of oil lands, did you here again contemplate possible remote future developments?

A. We thought it would occur within fifty years.

Q. Or might possibly be not until a hundred years?

A. That, of course, is remotely possible; but we believed it would be within fifty years.

Q. Then your classification was in no sense limited to lands that could have been developed in 1909 with the means then at hand?

A. No; we considered the matter of immediate value very carefully in a number of board meetings and the advisory committee of the board, and it was found on carefully reviewing the situation that there might exist temporary conditions which would make property unworkable which would be considered a good mine; and that taking the question as a whole, as in the case of coal where 95 per cent or more of the coal lands, and great thick seams of good coal—

Q. I am asking you about oil. I don't care for a constant reference to coal.

Mr. Mills—You may finish the answer.

A. About 95 per cent or more of the coal land in the west would be classified as non-coal land, even though a great amount of it in acreage was being acquired by coal companies for the purpose of holding it for that very production. [718]

Q. By Mr Lewers—You testified, did you not, that in your opinion whatever oil there might be in the Elk Hills might possibly be four or five or even six thousand feet deep?

A. Yes; that is possible.

Q. And might be even deepe

A. Yes; there are, I think, se... eeper layers.

Q. And in passing upon its val... as oil land, on account, possibly, of such great depth, you took into consideration the chances that in the next twenty or fifty or more years means might be found for getting the oil at those depths?

A. I think as a matter of fact means exist now. This depth limit to 5000 feet was fixed before there were wells in California of that depth then. And, considering the world at large, there are quite a series of wells in Galicia in rather soft strata—I think there are fourteen or fifteen or probably more—which have an average depth of 5000 feet, and a number of them are over. And of those wells four of them are producing only thirty-five barrels a day, and the maximum is producing about two hundred and fifty or possibly three hundred. And yet those people are now sinking other wells in the same region for that yield of oil. Now, in the next twenty years I think it is reasonable to think this land will be developed. I would put it much less than fifty years.

Q. You answered the other day that it might not come within fifty years, but it might come in a hundred years.

A. I should say that that is the outside limit. I

think the chances of it coming in twenty years are much greater than its coming at a time longer than fifty years.

Q. In Bulletin No. 264 of the United States Geological Survey, being a record of deep well boring for 1904 by M. L. Fuller, E. F. Lines, and A. C. Veatch, published in 1905, at page 14 we find this statement in an article written by Myron L. Fuller: **[719]**

"The depth to the productive rock is of great importance as affecting the success of a well. For a shallow well a relatively outfit can be used, but for deeper borings heavy and more costly machinery and rigs are required. These, with increased cost of fuel, outfits, casing, and greater difficulty of manipulation, make the cost of a well increase rapidly with depth. The amount of oil or gas which would give a good profit on the investment required for a 1000-foot well might not be sufficient to warrant the sinking of a 3000-foot well." Do you agree with that statement?

A. Yes.

Q. On page 16 of the same bulletin, occurs this: "Nothing can be further from the truth than the common fallacy that oil, gas, water, or whatever the driller may be in search of, can be had if the hole is only drilled deep enough. In unaltered porous rocks oil and gas may occur, within certain limits, regardless of depth; but all rocks, of whatever character, buried deep enough, especially if subjected to the powerful compression incident to the formation of

mountains, become altered through the influence of heat and pressure, often into more or less crystalline masses. In such rocks the volatile substances, such as the hydrocarbons, are expelled and it is useless to look in them for deposits of oil or gas." Do you agree with that statement?

Mr Mills—I object to that question unless the whole pamphlet is submitted to the witness.

A. I agree with that statement. The region that he refers to is entirely different from the region here. The matter that it is a common belief that if you go deep enough you will get the substances, is not the statement of the view of a scientist that you will get them. For instance in Long Island you have a series of underground waters which dip gently **[720]** towards the sea. You drill a well at one place 900 feet and you get a flowing artesian well. If you drill a well a few miles distant, because of the dip of the rock you start in granite below the base of this porous layer, and you may drill to China without ever reaching that layer. The depth at that point does not affect the other. In this case of the Elk Hills, I have carefully considered all matters there. Those are evident to any geologist working in the field. The depths of rocks in which there is no pore-space, or in which the pore-space has been entirely closed up by the superincumbent pressure, is a matter of ten miles or more and is much greater than any depth I considered in this region. The areas in which there is no pore-space in the rock due to metamorphic action and where the rocks are now at the surface due to

uplifting and erosion, are entirely different from the character of rocks that occur in this region. These are sedimentary strata practically unaltered, and in which none of these things that Mr Lewers has mentioned apply.

Q. You think, then, that Mr. Fuller when he said that in the bulletin that I referred to, was speaking of wells ten miles or more deep?

A. No; he said there were two classes. There were the rocks at the surface which have been subject to metamorphic action, and I illustrate that by the condition at New York where the granite and other metamorphic rocks are at the surface. And you start drilling there and you will not get the cretaceous sands which yield the water at Long Island. You start below the bottom of the bed. And, similarly, if you go east of Bakersfield and start drilling in the granite rock there, you would have an entirely different proposition from drilling in the sedimentary beds which underlie the southern end of the San Joaquin Valley. [721]

Q. Those would be igneous rocks, would they not?

A. Yes, in a general way.

Q. On page 16, immediately following the portion which I read, referring still to the same bulletin, Mr. Fuller states: "It is also useless to seek for oil in rocks of igneous origin—that is, those which have once been molten—for the conditions of their formation are such as to preclude the formation or retention of oil or similar substances." Does not that indicate to you that Mr. Fuller differentiated between the two

classes and that his first statement concerned sedimentary rock?

A. No; his second statement is not true, to start with. It is too broad a statement. You see, there are two things. If the hydrocarbons were there before the intrusion, the heat might drive them away; but if after the intrusion has come into the rock—supposing it is slightly porous and it cools down entirely—the oil will go into that porous rock, or the water either. The oil and water do not differentiate in beds that way. The only difference from a geologic standpoint is where it goes into porous sedimentary strata you can from geologic knowledge and investigation determine how that porous bed runs within relatively correct limits. But where you are working with an intrusion, the intrusion may be very irregular. It does not follow the same sort of laws that sedimentary rocks do. It is also possible to get oil and water in granite, although you would not look for them there. There may be a weathered surface of granite which is slightly porous.

Q. The question was whether or not in your opinion Mr. Fuller had not differentiated between igneous rocks and sedimentary?

A. No. And I think also his second statement is erroneous.

Q. You do not agree with his second statement as it stands? **[722]**

A. No; it is too broad.

Q. Did you determine, Mr. Veatch, whether or not

the Elk Hills was a marine formation or fresh water, or part of both?

A. No, I did not. My opinion is that it is probably both.

Q. Where you are assuming that you have beds of this diatomaceous shale being deposited, that must have occurred at a time when the San Joaquin Valley was an inland sea?

A. Yes, broadly speaking.

Q. And from what source at that time was the greater amount of sediment derived that was deposited in the beds of the San Joaquin Valley?

A. Speaking of the deposition of the diatomaceous beds alone, it was derived from the marine algae blown down by winds and currents.

Q. I am asking you at the time those beds of shale were deposited, where did the greater amount of the sediment come from?

A. The diatomaceous beds are practically all diatoms, and they must have come from the marine algae.

Q. And nothing is between any of those laminations?

A. Yes, there are in places. I thought you were talking about the great thickness of pure diatomaceous shale.

Q. I am speaking of the deposit of Monterey shale in the bed of that inland sea and of other deposits underlying and overlying the Monterey shales in that inland sea; where did the greater amount of material of those deposits come from?

A. I don't know.

Q. Are you able to determine?

A. I think it could be determined by field examination.

Q. Is there anything in the topography of the country at the present time that would indicate where the greater portion came from? [723]

A. Only in a broad general way.

Q. Taking it in a broad, general way, what would you say?

A. I think it is probable that a portion of the Sierra Nevadas were above the surface of the ocean, and supplied some material. I think it is possible that there may have been some ranges to the west of this ridge that I call the Temblor Range which were higher in the hills than the Elk Hills, and those surrounding hills. There are fragments of a peculiar kind of lava, and the nearest place that I have seen from which it could be derived is over west of the Temblor Range. That would point to the land in that direction.

Q. What is the difference between sediments deposited in the bed of the sea at a distance from their origin and those deposited close to shore?

A. The nearer shore deposits are coarser.

Q. And those that are farther out are usually quite fine?

A. If you have a stable surface, which seldom happens, you may have your fine stuff all accumulate at some distance in the sea, and the coarse stuff near the shore. But the floor is constantly shifting, and you

will have a floor space extending over great distances.

Q. As you get further from the shore along the same bed of sedimentation, it becomes finer?

A. Not necessarily.

Q. Well, generally?

A. I wouldn't say necessarily generally. We have coarse beds which are of enormous extent—

Q. Are there any such coarse beds under the Elk Hills?

A. I think there are.

Q. Have you determined whether there are or not?

A. That is, from geologic evidence that is my belief.

Q. From looking at the surface of the ground?

[724]

A. That is ample in taking the whole geology of the country.

Q. You say you have not examined the logs of any wells, and you don't know what they show?

A. No, except to see some coarse stuff around one or two rigs there that evidently came out of the well.

Q. You didn't know how deep they came from?

A. No. And I know the surface of the hills contains some very coarse material which has been transported as far from any probable source as the beds which lie at the base, and the matter of distance from the shore line, the coarseness of the material under those conditions would be the measure of the coarseness of the lower portion.

Q. When there has been a deposit along a shore or any other point, of sediment to a depth of from three to six thousand feet, made up partially of fine silt, partially of coarser gravel conglomerate, and that sedimentation extended over quite a long period of time, what changes in the structure of the strata in that deposit takes place?

A. None would necessarily take place.

Q. Is it not a fact that in all such cases where such sedimentation has been going on until it has built up to the depth I have indicated, there is a marked subsidence and crushing and compressing of the strata on the lower side of that deposit?

A. I don't think that necessarily follows.

Q. Do you know whether that follows in the Elk Hills?

A. What sediment are you talking about on the Elk Hills?

Q. The whole Elk Hills are sedimentary, are they not?

A. I believe so. I don't believe there would be compression there that would affect the oil values.

Q. Is it not also a fact that when there has occurred in some past geological period of time processes which have created or constructed a syncline or valley and afterwards that valley **[725]** has been filled up by sediment carried in there through the processes of erosions that that sediment after it acquires a thickness of from three to five thousand feet will settle or subside, and that in doing so it will form anticlines near the surface?

Mr Mills—I object to this question and move that all questions of speculative nature along the same line be stricken from the record because they serve only to burden the record with immaterial matters, and shed no light whatever on the issues in this case.

Mr Lewers—I am willing to have all this speculative evidence go out of the record.

Mr Mills—Why don't you quit asking speculative questions?

Mr Lewers—You started it. I admit all this oil business is a gamble.

Mr Mills—If you examine the direct testimony carefully, you will find it is limited to questions on the issues in this case.

A. I should say from your statement of the matter that it would not follow. The compression of a sand bed beyond its original thickness, to any degree that would produce an anticline or a syncline, is a very peculiar proposition.

Q. You think that is not a possible situation?

A. No. If that sand bed contains some soluble material and you took it out by solution, you would have some substance which would produce peculiar little distortions such as occur in Northern New York where you have a solution of salt. But there is nothing in any way parallel with the conditions that exist in this locality.

Q. Is there any reason, Mr Veatch, why conclusions based upon examinations of other oil fields in Wyoming and West Virginia and Pennsylvania or

in Texas cannot be applied to the [726] California oil fields?

A. No two oil fields are exactly alike, so far as my experience shows. But all training or experience of geologists in stratigraphic work fit in for determining the conditions in a new field. Each field must be taken and worked out by itself as a matter of stratigraphic geology. The more experience a man has in stratigraphic geology, the more capable he is of forming a correct conclusion, and the more quickly he can form that conclusion.

Q. The question that I want to get at is this: Whether or not a geologist who has become thoroughly familiar with what you have termed stratigraphic conditions in an oil field, whether it be in California, Texas, Wyoming, Pennsylvania, Indiana or anywhere else is, in your opinion, if he is a competent man, able to determine what you have defined as the oil value of territory in his region?

A. The only difference that could exist between us is the definition of "competent." He would not be competent unless he could, according to my sense of the word "competent." I can imagine a man who has had experience in one region—limited experience—in hard rocks only, for instance—who would probably be very much at sea when he was put into the soft strata the first time; and it might take him a long time to work that out, a time that would be much in excess of what a man competent along that line could do it in. But if he was a good man, he would finally find his feet and get it.

A. Were Ralph W. Stone and Frederick G. Clapp competent?

A. Their experience, so far as I know, was limited to hard rock material in eastern United States. They had no experience in tertiary or cretaceous formations.

Q. Are they competent geologists?

A. For what purpose? [727]

Q. In their particular fields.

A. On oil conditions in Pennsylvania?

Q. Yes.

A. Yes.

Q. Now, in Bulletin No. 304 of the United States Geological Survey, being a bulletin on the oil and gas fields of Green county, Pennsylvania, by Ralph W. Stone and Frederick G. Clapp, issued in 1907, at page 83 under the head of "Prospective Territory," this statement is made:

"In the preceding pages a few hints have been given in regard to further development of the gas and oil fields in this country. It is hazardous to make suggestions of this sort and they should be considered as only of speculative value. The writers are of the opinion that there are yet some areas of considerable extent which might well be tested. The occurrence of gas and oil cannot be foretold, but the following localities are proposed for consideration." Would you agree with that statement?

A. In a broad way. And I might add that Mr. Clapp has since resigned from the Survey and is now

advising Pennsylvania operators regarding those same fields and is getting some very valuable wells, and his deductions have been shown to be correct. And another man who worked in the same region, Griswold, who in printing a paper by the government for distribution, where he had been very cautious about stating the matter, those cautious statements have been so thoroughly proven to be correct that he is now employed by a large number of oil firms at Pittsburgh, all over Ohio, West Virginia and Pennsylvania, and his work is very satisfactory, thoroughly demonstrating the correctness of his opinion.

Q. Mr. Griswold?

A. Yes.

Q. What are his initials? [728]

A. I don't remember them.

Q. Isn't it possible, Mr. Veatch, that where you have to chance a guess from surface indications whether there is or is not oil, that occasionally and, possibly, frequently when there are only two guesses you are going to hit it right?

A. I am speaking simply of the percentage of successful results. No man is infallible in any kind of business. No man of any scientific reputation pretends to be infallible. But a man who is competent will hit it right the greater number of times. His conclusion is based upon scientific facts.

Q. Then, if he does not hit it the greater number of times, you would say he was not a competent geologist?

A. I think that would follow. If he comes to you and tells you, "This is a good oil proposition," and tells you ten times it is a good oil proposition, and nine times you find he is wrong, I think he would be thoroughly condemned. But when such a man as Mr. Youle tells you it is a good oil proposition and the whole thing proves out, I think there is a different conclusion.

Q. Mr. Youle said the only test of an oil territory is the drill.

A. I agree with that in the way that I have explained. I think there is no conflict whatever.

Q. And Mr. Youle also stated in a portion of the testimony read to you yesterday that geologists who understood their business no longer make predictions.

A. I have explained that matter before. Shall I go into another explanation?

Q. No, I think not. In your direct testimony at page 1371, in speaking of whether petroleum is a mineral or not, you made this statement: "In attempting to give a scientific meaning to the word 'mineral,' some scientists have defined a mineral as any substance of inorganic origin of definite chemical compo-
[729] sition occurring naturally within the earth. If this definition is followed out strictly, it would exclude everything in which organic matter has been a factor in its formation. Many deposits of iron ore will be excluded." As a scientific man, do you think that is a fair statement?

A. Yes; I think that definition followed logically to its ultimate conclusion leads to an absurdity.

Q. And you think the instance that you have given in reference to iron is a fair comparison by which to determine whether oil is mineral?

A. I simply say if the matter is followed out strictly, that is, to the extreme, it leads to an absurdity.

Q. How is iron formed when it occurs in beds as you referred to?

A. You take the matter of iron carbonate, for instance, in whatever soluble form it may be carried down to the lake, there is a reaction between that and vegetable matter or products of vegetable material. It is called a bog ore for that very reason, and the result is a precipitation of the iron as an iron carbonate at the bottom of the lake. The vegetable matter is a factor in the formation of the ore.

Q. What did the iron come from originally?

A. I don't know. It may come in differnt forms.

Q. Is it not a fact that that iron occurs in a great many rocks in the shape of ferric oxide?

A. Yes.

Q. That is a higher oxide of iron?

A. Yes.

Q. And is it not a fact that that is generally insoluble?

A. Yes.

Q. And when it comes in contact with decaying organic matter, a portion of the oxygen, in the pres-

ence of carbonic acid [730] gas, is thrown from that iron and forms a ferrous oxide?

A. I don't know that the presence of carbonic acid gas is necessary. But, in a general way, there is a reduction of the iron from ferric to a ferrous state, due to the action of vegetable matter.

Q. And when it is in its ferrous state it becomes soluble in any medium where water is present and where carbonic acid gas is present, and forms iron carbonate?

A. I don't know that that is necessarily true.

Q. It does form iron carbonate?

A. It does when it comes down to the lake. But my general recollection is—it is a long time since I dabbled in chemistry—it forms a compound with humic acid and comes down in a soluble form. If the carbonate was soluble, there would be no precipitation in your lake.

A. And doesn't it later, when it has an opportunity to acquire more oxygen from any source—the air or otherwise—form ferric oxide again and deposit as such?

Mr. Mills—We object to any further examination along this line because it tends to obscure the issues in this case, as many of the questions have repeatedly done, and it is wholly irrelevant to any issue in this case whatever.

A. You have frequent changes of form in the various iron salts, generally, with the aid of vegetable matter, which is an important factor in the reaction.

Q. By Mr. Lewers—Isn't the iron deposited in the form of bog iron ore, in the form of ferric oxide?

A. Bog iron ore, I think, is a carbonate.

Q. Isn't it a fact that the iron is deposited in its original form and that the organic matter simply furnishes a means to assist in the change or transition period—

A. I should say it is not in its original form. You have [731] started, certainly, with ferric oxide, and you have got as a result the carbonate. They are not the same form.

Q. You think carbonate is the final form of bog iron?

A. Yes.

Q. And not ferric oxide?

A. Certainly it is not an oxide; it is a carbonate.

Q. You are positive of that?

A. Yes.

Q. Does any such process occur to your mind whereby petroleum is in existence and is simply deposited as the result of organic action?

A. It has been argued by a number of scientists that petroleum is produced by direct reaction on the iron carbides.

Q. Do you believe that is true in California?

A. No.

Q. Then what does produce the oil in California?

A. I have stated several times that it was not susceptible of exact proof, but that it comes from the diatomaceous shales and the fact that there is the greatest thickness of the diatomaceous shales in this

whole region in the Elk Hills country makes that the most valuable oil territory from that line of argument.

Q. Did I ask you anything about the Elk Hills?

A. It could mean nothing unless it is related to the Elk Hills.

Q. You are anxious to tie it to the Elk Hills?

A. That is what it should be tied to.

Q. Very well; we will tie it to the Elk Hills. What does the oil come from in the Elk Hills?

A. I believe it comes from that series of diatomaceous shales.

Q. Do you know whether there is any oil in the Elk Hills? **[732]**

A. I believe there is. I have stated that repeatedly.

Q. But you don't know it?

A. I stated that I would not guarantee a man to find oil. No reputable geologist would. But the conditions were such as would justify him in spending money in acquiring the land and developing a well; that it is certainly oil land.

Q. I think I have heard that before. Is petroleum as it exists in California—I mean petroleum that we do know exists—original mineral in its origin or is it organic in its origin?

A. I think it is mineral in its origin.

Q. From what mineral does it come?

A. From the diatomaceous earth.

Q. And diatoms are mineral?

A. I think so.

Q. And not organic?

A. A thing can be both organic and be a mineral. That is, of ultimate organic origin.

Q. Are diatoms organic?

A. They were originally part of organisms.

Q. They were alive originally?

A. No; the material around them was alive.

Q. They were not?

A. They were part of the material. To say that a thing itself is alive would be untrue.

Q. Suppose upon a favorable bed of sand along the sea shore—in the early history of the Elk Hills, we will say, there was a favorable bed of sand, when that was an inland sea in the San Joaquin Valley, and we will further assume that that sea had a hundred whales, and those whales by some force of nature were thrown up on that bed of sand and died there, and the oil in those whales' carcasses leached out into the sand on that shore and later further deposits came and buried those sands, would **[733]** you say that that oil from those whales in those sands was mineral?

Mr. Mills—Are you going to contend seriously that petroleum came from a hundred whales?

Mr. Lewers—If there is any there it must have come from those whales.

Mr. Mills—If that is part of your defense, I would like to know it.

A. I should say your supposition is impossible.

Q. By Mr. Lewers—Kindly take my supposition.

A. I cannot, because it is impossible. I cannot conceive it. If your whales are on the seashore, thrown up on the bed of sand, and decomposed, the sea water will take off every bit of oil that is there. It won't stay in the sand.

Q. Is that the way you answer my question? Is that the only answer that occurs to you? I am asking you as an expert, and I am making an assumption which is a possible one, though to you it may not be a probable one—

Mr. Mills—What he knows about whales.

Q. —That the oil from a hundred whales does leach out into the sand—

A. Are you going to have your whales buried before this leaching occurs?

Q. It makes no difference whether they are buried or not. The oil from the whales goes into the sand.

A. It cannot unless they are buried.

Q. Let us assume that they are good oily whales to start with, and then that is covered over. Would you say that if you found that oil in that sand at a later period that that oil was mineral oil?

A. I would say yes in a general way. But I want to explain how that could happen. If you have your whales thrown up on the [734] shore as you describe, and you have them then covered with a thick layer of clay before these whales decompose, and those things are buried there, you have a slow distillation of the oil which is entirely different from the distillation of sperm oil in the kettles on a whaling ship.

You have various chemical reactions taking place. There is salt water in the bed. There are clays above it. And you have a resulting oil which is mineral oil and very different from sperm oil.

Mr. Mills—I want to interpose an objection here to all questions tending to develop counsel's argument of the whale theory as connected with the Elk Hills.

Mr. Lewers—I am coming to something else that you can understand.

Mr. Mills—Perhaps you had better get to something else and get to a lobster theory. If you seriously contend that the oil taken from that Associated well came from whales, I would like to know it. If not, we ought to discontinue it because it is becoming slightly trivial.

Mr. Lewers—I believe the entire theory announced by the government is in that respect more than slightly trivial.

Q. Then, even though the oil in its origin is organic—from animals—you think that the process of distillation has gone on and it becomes mineral?

A. Sure it does. You take a bed of coal, for an illustration. A coal bed is not a growing tree, although it may have been derived from a tree. It certainly is a mineral and certainly is not a tree.

Q. You have no other comparisons except coal that occur to you?

A. Yes. Take a bed of limestone, which is made up entirely of shells, which are of organic origin.

Take a bed of phosphate, which is made up of phosphatic material derived from animals, [735] and it is mineral. You have a great series of substances in which organic matter has played an important part and in a great many cases forms a whole bed. You can have a limestone composed entirely of organic material, and yet when you burn that and get commercial lime, that is a change from its original organic condition, and the commercial lime is a mineral of definite chemical composition.

Q. No difference occurs to you in a process which takes the mineral and simply decomposes it through the aid of some organic influence, and a process whereby the organic organism is itself merely altered in form?

A. Are you referring to shells or diatoms?

Q. I am referring to the oil and iron and limestone.

A. No; I think they are all minerals and commonly so accepted.

Q. You make no distinction in the regions of bog iron and of petroleum so far as the determination of the respective mineral characters are concerned?

A. They are both mineral.

Q. Why was it that for a great many years and even now petroleum was called coal oil?

A. That was because it was supposed by some people to be derived from the coal in Pennsylvania. That is proved not to be the fact in any way. It is not connected with the coal, and the name is a misnomer in that respect.

Q. And at one time that was a very common supposition, was it not?

A. I don't know that it was. The earliest scientific reports on that never mentioned it as derived from coal in any way. If you refer to the scientific accounts, they refer to fish in the Devonian and refer it to the different organisms in the Devonian and Silurian rocks, but never connect it with **[736]** coal.

Q. In your direct testimony at page 1371 you state: "Under this definition coal is not a mineral, since it is clearly of organic origin. That Congress had no such restricted definition in mind when it used the word 'mineral' is shown by the fact that it found it necessary to expressly grant coal to the railroad." Was that statement to your mind when you made it a statement of scientific conclusion, or was it a legal argument to support the government's theory in this case?

Mr. Mills—Let me finish the statement first. "Because under this restricted definition coal is not a mineral since coal is an organic article."

A. I think that is purely a matter of scientific deduction. Because given a certain group of words, what does that group of words mean? That sort of deduction is not a matter of law.

Q. Then what Congress meant is purely a matter of scientific deduction?

A. I think it is a matter of simple common sense.

Q. The grant in this case to the Southern Pacific Railroad Company passed July 27th, 1866. On the

same day Congress ratified a treaty with some Indians, in which treaty it was provided that—

Mr. Mills—Please state what treaty you are referring to.

Q. By Mr. Lewers—In which treaty it was provided—

Mr. Mills—I ask counsel to refer to the treaty.

Mr. Lewers—I shall ask the question as I wish.

Mr. Mills—I think it is only fair to counsel on the other side to state when you refer to public acts to give the date and the title of the act.

Q. By Mr. Lewers—In which treaty it was provided that a person in occupation—acual occupation—of any land held by the Indians, non-mineral in character, would have a right to [737] purchase the land he occupied, and a portion of such land had underlying it a well defined and well known and extensive body of coal. In your opinion as a scientific man, would the person occupying that land be entitled to purchase it as non-mineral land?

Mr. Mills—I advise the witness that he need not answer the question until the counsel shows what he refers to.

A. No; land underlain by a good workable bed of coal is certainly coal land.

Q. By Mr. Lewers—And in your opinion Congress intended in that case where it ratified the treaty on the same day that it passed this act, to include the word "coal" as a mineral?

Mr. Mills—You need not answer that question till

counsel is fair enough to state what act he is referring to.

Q. By Mr. Lewers—Will you kindly answer the question, regardless of the interruption?

Mr. Mills—I advise the witness not to answer the question till you state what act you are referring to.

Mr. Lewers—I except to the instructions given by counsel for the government to the witness, as an obstruction of the cross-examiantion and as misconduct on his part.

Mr. Mills—I except to your method of examination, referring to public acts and being unfair enough not to state to opposing counsel what act you refer to.

Mr. Lewers—I don't think it is a matter of any consequence to the witness as a scientific expert what act I am referring to.

A. I would have to see the act and read the whole thing to be able to answer you intelligently. Have you the act where I can look at it?

Mr. Lewers—I have not.

Mr. Mills—Did you ever hear of the act?

Mr. Lewers—I have. [738]

A. But I should say that in an unqualified statement, not qualified by anything in the act in any way—

Q. That is the fact. "Allowed to purchase non-mineral land." That is the statement.

A. Land underlain by good beds of coal is certainly mineral land.

Q. As a scientific matter you would say that that

would include at that time as mineral the coal that was under the land?

Mr. Mills—The witness has stated that he cannot give you any response to that question.

Mr. Lewers—I think he has already given the response. Now, Mr. Mills, if you are very anxious to know, I will give it to you. You will find in the case of Stroud vs. the Missouri Pacific Railroad Company, decided by the Circuit Court of the United States and reported in 4 Dillon, page 396, a decision of that court to the effect that the words "non-mineral" in that treaty did not include the coal in the land.

Mr. Mills—I am very grateful to counsel for giving me the citation.

Q. By Mr. Lewers—Then it would appear that Congress sometimes was not thoroughly scientific, or that the courts in interpreting the acts of Congress were not thoroughly scientific.

A. The conclusion is still the same, that non-mineral excludes coal as a scientific matter. There is no doubt whatever and no doubt can exist. The only matter in the question of classification, which I have brought up repeatedly, is the matter of the relative worth of the land, which may have been an important factor in that case. It is certainly mineral land. You said that there was known to be a thick bed of coal beneath the land.

Q. Now, Mr. Veatch, you have made frequent and repeated comparisons between oil deposits and coal deposits and have, in [739] answer to questions by Mr. Mills, found the source of your horizon zone the-

ory, or what I have so termed, in coal deposits. Can you mention any writer on oil geology who has ever made that comparison?

A. No. The only comparison on coal is in that Geological Survey report, and that was discussed very carefully by people who were very familiar for a great many years with coal, and there has been no bulletin published regarding the valuation of oil lands.

Q. The question I asked you was whether or not you know of any writer or any geologist in any publication who had applied this zone theory or horizon theory to oil?

A. I think not.

Q. Isn't it a fact, Mr. Veatch, that one great line of distinction between a lode deposit on valuable mineral and a coal deposit is that one occurs in sedimentary strata and the other in fissures, ordinarily through rocks of igneous origin?

A. In what sense do you use "lode"?

Q. Gold, silver, copper.

A. They certainly differ, in the case of copper. There are impregnations of copper in limestone.

Q. Let us take gold and silver.

A. In that respect they are the same. Where anything occurs in stratified deposits the general laws as to stratified deposits follow; and with a great many lode deposits that is not so.

Q. And they most commonly occur in fissure veins?

A. There are certainly deposits of that kind.

Q. And those are the most frequent?

A. I don't know as to that.

Q. And some element of uncertainty in the prediction as to the occurrence of gold and silver values arises from the fact that they do occur in fissures rather than in sedimentary [740] beds?

A. Yes.

Q. Then is there not some analogy between oil deposits and lode deposits, in that oil which may exist or may have originated in shale sedimentary deposits must get to the reservoirs where you find it and can extract it, through fissures and cracks very frequently?

A. I think there is no analogy there.

Q. It is a fact, is it not, that in the economic production of oil you do not produce the oil or extract the oil ordinarily from the shales in which it is formed?

A. You assume that all oils are formed in shales, and I am not at all sure that that is the fact. The fact is I believe otherwise.

Q. I will change the question, if you don't like that assumption. Is it not a fact that you do not ordinarily as an economic proposition extract the oil from the formations, whether shale or something else, in which they are originally formed?

A. You extract the oil from a porous bed. What the relation of that porous bed is to the source, varies differently in a great many different regions.

Q. And in many cases that oil may have traveled a long distance from its source?

A. Yes, just as with water.

Q. And in many cases it travels through fissures or cracks?

A. I don't know that that is true. I think that probably occurs in some instances.

Q. And if that oil is formed originally at the base of a series of diatomaceous shales which is overlain with a great thickness of either shale or some other sedimentary deposit before you reach the sand bed that will serve as a reservoir, [741] it is necessary, is it not, that that oil find some means of getting through those beds to reach the sand?

A. In the first place, I don't believe you could prove that it originated from the base of the diatomaceous series—

Q. Mr. Veatch, will you kindly answer my question as I have given it? I have assumed that it comes from there. Can you answer that question as a scientific matter?

A. I think it is possible to come up without any fissuring of any kind, as a scientific proposition. Even in the densest shales you have diffusion of oils where there is no break in the shale. It is a scientific possibility.

Q. And comes through at right angles?

A. Yes.

Q. For what distance?

A. It depends on the matter of time in which the oil has to pass through it. It must pass very slowly. But in geology you are dealing with very large time-

factors. It is a great many eons, probably, since this thing started.

Q. Can you mention any place in California where development of any field has shown that such a thing has taken place?

A. As I stated when you interrupted me, you cannot demonstrate beyond any doubt that this material comes from those diatomaceous shales. And, if you cannot demonstrate that, you cannot demonstrate what portion of the bed it comes from. In the region involved the evidence is that it comes in greater volume from the upper portion of the shale for the reason that the great deposits of oil are in the porous beds above it and not in the porous beds below it.

Q. That is the reason you draw that conclusion?

A. Yes; that is the fact in the ground.

Q. Water is a mineral, is it not?

A. Yes, in some classifications. [742]

Q. Would you term land that from geological examination you determined would produce water in artesian flow, mineral land?

A. No, for this reaosn: That water is necessary to plant growth. It is an integral part of the agricultural value of the land, and in that respect it differs entirely from oil.

Q. Then, assuming that a particular territory in question was more valuable for the extraction of water than for other purposes you would not call that mineral land?

A. I think there is a question there. If the wa-

ter is used on the surface there, I would not call it mineral land. A case can arise where it would be mineral land.

Q. Then there is some land which is more valuable for its mineral contents that you would not call mineral land?

A. I have explained the way in which water is differentiated from oil. I have explained also that in the case of the clay bed, if the clay is more valuable for growing a crop, there your crop is using the mineral. The surface of all lands is mineral, and the distinction must be drawn and is drawn in every fair-minded man's mind between the material which goes to make a crop and the minerals which are extracted and exploited as minerals. In one case man extracts it; in the other case the plant extracts it.

Q. Now, suppose that in the vicinity of a hot spring or a series of hot springs there existed a deposit of gold in the shape of a fissure vein, containing gold which assayed high enough so that if it occurred anywhere else it could be worked at a profit; and that if that gold were extracted at that place it would produce more profit than any other use to which that land could be put; but that owing to the proximity to the hot springs and to the great heat encountered in developing that property, it is impossible according to any means now known to work that ledge for gold; and suppose the land had some value **[743]** to produce some income for purposes, not mining, in their character. In your opinion would that be mineral land or not?

Mr. Mills—I wish to object to this question because counsel has gone into the question of lode deposits and value of lands from their mineral or agricultural character fully at a previous session, and also I think it is rather unfair in view of the statement made by counsel that all he wanted to ask the witness yesterday was upon the bulletin, and I think the examination now should be confined to the redirect—the subjects brought out by redirect—and not rehash all this immaterial matter.

A. How do you know it would be more valuable for gold if you cannot extract the gold? Your assumption is impossible.

Q. By Mr. Lewers—Is that the best answer you can give?

A. It is a perfectly fair answer. Your question assumes an impossibility and I am pointing out to you that it is. Assume something fair.

Q. If you will kindly pay attention to the question and forget for the moment that you are anything else except a disinterested expert—

Mr. Mills—I object to any innuendoes made by counsel in that statement,—constantly asking him to pay attention to questions. That is all he has been doing for three or four days.

Q. By Mr. Lewers—and assume as a demonstrated fact that there is exposed and developed to a depth to show a high degree of probability of its persistence downward, a ledge carrying gold and assaying five hundred dollars a ton, but that owing to its proximity to a hot spring or series of hot springs it

is impossible, according to the means now known, to go down any deeper on the depth, although all the surrounding conditions demonstrate that that ledge does go down and does contain a large body of ore, and the land has some value for purposes other than [744] mining, although slight. Would you say that that was more valuable for mining?

A. I should say that you could not determine that that ledge went down in the way that you have described and therein your ledge differs entirely with beds occurring in stratified deposits.

Q. You are unwilling to take the assumption of the proven facts?

A. It cannot be proven in the way you have stated.

Q. Let us assume that it does go down for a distance of five hundred feet as shown by borings.

A. If a man could develop it partially, I think he could develop it entirely.

Q. And we will assume further, as my question does, that according to any means now known it is not possible to work that lode to its proven depth, although it contains values as shown by borings down to that distance.

A. Values of five hundred dollars per ton?

Q. Yes. Is that mineral land?

Mr. Mills—I want to ask Mr. Lewers a question. Do you insist on continuing this examination, when you stated to me that you concluded yesterday, any farther?

Mr. Lewers—Your statement made now is, as you must know, totally unfair. I said that there was a

question concerning a bulletin and certain other matters.

Mr. Mills—Then I shall certainly announce to you here and now that I shall call the attention of the court to what I regard is a deliberate attempt on your part to obscure the issues in the case.

Mr. Lewers—You are welcome to do that. I shall certainly not be silent when the time comes.

Mr. Mills—If the court were here I should certainly take it before the court now and see if you are permitted to take up [745] all this time. I regard it as an abuse of your privilege.

A. Yes; because if there was proof of the thickness that you describe of ore, having a value of five hundred dollars to the ton, I would trust American ingenuity to get it.

Q. By Mr. Lewers—At some time?

A. Yes, and in the near future too. [746]

JOHN CASPAR BRANNER, a witness called and sworn on behalf of the plaintiff, testified as follows:

DIRECT EXAMINATION.

My residence is Stanford University, California. My age is sixty-one years.

As to my experience and training as a geologist, I will say, I was educated as a geologist at Cornell University. Left there in 1874 to go on the geological survey of Brazil, South America, and I remained in that country doing geological work about eight years. Then I came back to the States, and after a couple of

extra trips to South America and doing other kinds of work—natural history work—I went onto the geological survey of Pennsylvania, and worked there for two years in the anthracite coal regions, as assistant on the Pennsylvania geological survey. I was then made Professor of Geology in the State University of Indiana and was engaged as professor there for two years, although I held the position for several years more; I was on leave of absence. I then went, in 1887, to the state of Arkansas, where I was state geologist, and held that position until about 1893, I think it was. In 1892, however, before the expiration of my term of office, I came to Stanford University as Professor of Geology and have been there ever since. I was a member of the United States Geological Survey for several years; I don't remember now how many years. I think that embraces the principal facts.

I have had experience in the oil fields of California. I have worked in the geology of California almost ever since I first came to this state, in February, 1892. All the geological work that I have done here has borne more or less directly on the oil geology. I have visited different parts of the oil fields and have occasionally been employed to report on oil properties.

I reported on some property in what is known as the [747] Temblor Range northwest of McKittrick, I think. I am acquainted with the oil fields of Coalinga, McKittrick and Maricopa. The main fields are along the eastern flank of the Coast Ranges, running

down from north of Coalinga and lapping back against the Coast Range clear down to the southeast end of the San Joaquin Valley.

I made my first trip into the McKittrick District in 1900 when I observed the physical condition of the eastern flank of the range on the McKittrick front. As to the stage of development and the physical evidences there, I noted that from McKittrick northward to Temblor, I simply noticed that there were a good many oil wells there at McKittrick, that there were some along the road I went in going up to Temblor, but that there was quite a stretch of country between those wells and Temblor in which there were no oil wells—there was very little development in there at that time.

I noticed evidences of natural waste of oil; there were oil seepages all the way from McKittrick, here and there, clear up to Temblor; that is, here and there; of course they did not go all the way.

I know the group of hills east of McKittrick called the Elk Hills. During my trip in 1900 I simply noticed those hills, but I did not pay any particular attention to them at the time and I did not go out into them.

I made an examination of the Elk Hills the first time I noticed their geological structure—I don't think I can tell you exactly the year, but it was possibly a couple of years ago, when I went around the south end of the McKittrick or the Elk Hills. The geological structure was perfectly clear at that time. Since then I went across the Elk Hills, and I went

from McKittrick up to the top of the mountains west of there, and then went across the hills themselves—that is a few months ago—in **[748]** order to see the structure.

On those recent trips I formed an opinion as to the geological structure and as to the character of the Elk Hills for oil. That opinion was based on my general knowledge of the behavior of petroleum in the rocks; on my observation of the general geologic structure of the entire area that I went over. The structure seemed to be perfectly simple—the general structure, of course, I mean was perfectly simple; and the conditions for the accumulation of petroleum were favorable along certain folds that were easily seen by any geologist.

My opinion was that the Elk Hills was the most promising area for petroleum in that region in the vicinity of McKittrick. I formed the opinion that it was oil-bearing. That opinion was confirmed to a considerable extent by the developments that had taken place there recently, but everything seemed to fit together; that is, the geologic structure, the development of the wells, the occurrence of the oil seepages, and everything, pointed to the Elk Hills as a promising field for the finding of petroleum.

I observed at that time that there was identity in the slope of the surface of the Elk Hills in the structure. As the erosion cuts down into the sedimentary beds, the more resisting character of some of the beds very frequently brings out the geologic structure by leaving the rock surfaces exposed so

that they look like shingles on a house, or something like that. That is, the shape of the topography, the slope of the hill, will frequently in those cases give the dip of the slope or rock beds. And I noticed especially in going around the south end of the Elk Hills, that the structure was very striking as seen from that position. That was a year or two ago. And then in the last trip I made through there a month or so ago, I noticed the same thing again in other parts of the hills. I would say that, apart **[749]** from any works of man recently in the hills, such as derricks or roads, from the observations I made in the last two trips, that the hills were substantially in the same condition that they must have been in 1900; decidedly so. No changes except the ordinary process of erosion, which is very slow.

Had I gone into the Elk Hills in 1900 I would have arrived at the same opinion as to the character of these lands that I did on the later trip; decidedly so. The lands were favorable for the accumulation of oil and I should say that they were oil in character.

I should say that if any competent geologist, observing the natural waste of oil about McKittrick and the stage of development in 1900 or a year or two subsequent, and visiting the Elk Hills and making some examination of the structural formation, failed to form an opinion that the Elk Hills were oil in character and that there was an oil-bearing zone underneath those hills, he did not understand his business.

As to the purpose for which a large company engaged in the oil business were employing a geologist I would say, of course, it would depend on the terms of the employment. If he had to do with the location of oil wells, or the determination as to whether or not lands that the company proposed to develop were oil lands or whether they were not, or whether lands that they proposed to sell were to be valued as oil lands, or whether lands that they proposed to buy were worth anything as oil lands, I should think that the company would naturally depend on the opinion of a geologist to determine that question. I don't know of any more legitimate use that a geologist could be put to.

After examining the map known in this case as "Government's Exhibit I", and taking into consideration the development shown in this map in 1904 and the geologic structure of the region, I would not, in 1904, have advised a company employing me [750] to sell lands in this suit for their agricultural value, and I would have advised that company to acquire the lands at a price in excess of their value for agricultural purposes.

During my work as head of the Geological Department in Stanford University, I have frequently been applied to to recommend students of mine who have had a course in geology and have recommended them to do geological work; and quite a number of my students are engaged now in that kind of work in the petroleum fields of California. Ralph Arnold is one of my students. He reported on the geology of the

petroleum fields of California for the United States Geological Survey, and has written several reports on the different fields. Harry Johnson was another of my students. He worked with Mr. Arnold and also published separate reports. Robert Anderson, who now has charge, I think, of the petroleum work in the state of California for the United States Geological Survey, was one of my students. Then the geologists for some of the petroleum companies have been my students. Mr. W. Orcutt, I think, is connected with the Union Oil Company. He was a student of mine, although he did not graduate in geology. Another man is Rolly Hamilton. He was the geologist for the Associated Oil Company for some years. He is now connected with some other company, I have forgotten which one. W. Williams, I think, is now the geologist of the Associated Oil Company. Mr. E. B. Kimball is geologist and engineer for another company and there are several others—Robert Moreland was geologist for the Standard Oil Company for some time; now doing private work. I am reasonably sure that the Standard Oil Company employed him on my recommendation, although it did not apply to me directly.

I think practical men invest money in oil territory in advance of drilling on the advice of geologists, and I regard that practice as fully justified by the results.

On the trip I took into the Elk Hills this year, I saw [751] oil seepages in one locality—perhaps I might say three or four localities close together—at one place near the axis of the fold of the hills. Per-

haps, to do justice to the case, however, I will state that I did not attach and do not attach any particular importance to that seepage. I should have considered the place oil-bearing land just as promptly without it as I did with it. It would simply be confirmatory of my opinion based solely upon the geologic structure.

CROSS EXAMINATION OF JOHN CASPAR BRANNER.

In passing upon the character of the Elk Hills, I did not determine in any way the quantity of oil and made no attempt to do so. I could not have done so from the examination I made. That could only be determined by puttitng down wells. One well might determine the matter and it might not. Development is required to determine whether or not that is a valuable oil deposit.

A geologist does not determine the economic value of the land for oil. All he undertakes to do is to say whether or not the land has prospective value. I mean by prospective value, that the company proposing to develop that region should take it up—buy it, if necessary—and put down a well on it, should prospect it. I can best illustrate my idea of it by saying that I have considered it a reasonable investment, or, if you please to call it so, venture. I should have advised anybody who might have employed me to report on those propositions, to buy the lands with a view to developing them as petroleum lands, from

the surface indiactions and my knowledge of the surrounding conditions and of the oil formations in general. I could not, when I first examined the land, have given an assurance that oil in valuable quantities could have been found. I could do so now on the basis of wells that have been put down there and have found oil. On [752] the basis that in only two cases out of twenty-eight wells, some of them four thousand feet deep, indications of oil had been found, and in those two cases oil had been found in quantities not sufficient to make these particular wells profitable, I would not hesitate to advise operators to go ahead with prospecting. In the first place it depends on how those wells were located. If the wells were put down without reference to the geologic structure, they might go to an enormous depth without getting oil, and yet, they may move off to one side and put down a well, within a thousand or two thousand feet, and get entirely different results. And still, I may add, the general structure of the Elk Hills is so favorable to the accumulation of oil in that region that if they had gone to five thousand feet and not found the oil, I should still advise a company to not give up hope of finding it.

The greater part of my field work since I came to California has had some relation to oil geology. The oil in the California fields originally developed from a series of beds that were known in geology as the Monterey shales—a series of rocks made up of the skeletons of diatoms that have accumulated in great quantities, especially about the Southern end of the

San Joanquin Valley. These rocks were given the name "Monterey Shales" because rocks of the same age and general character occur at Monterey in this state. It is a local name.

The Monterey shales belong to the Tertiary period and occur in many places in California on the east side of the Sierras. All of the Monterey shale is not of the same character. Sometimes those diatoms have had mixed with them a good deal of clay and fine sand. In other cases there have been volcanoes in existence at the time those shales were being deposited and those volcanoes have thrown out great quantities of ashes that have floated and settled in the water so that as the diatoms have gone to the bottom, these diatoms have mixed up with the deposits so that they are not pure **[753]** diatoms but are contained with these volcanic ashes mixed in with them. In other words, you have some pure beds of diatoms, that is, with nothing but daitom skeletons; in other cases you have diatoms with ashes; in other cases the diatoms are mixed with fine sands; and in other cases they are mixed with volcanic ashes.

I do not see any reason why shales deposted in deeper salt water and those deposited in fresh water should not both produce oil, as a matter of fact. I do not see that the possible depth at which the shales were deposited ought to influence it in any way. I don't see what that would have to do with it. As a matter of fact as you can see from what I have said about the origin of these deposits, they float near the surface of the water, and, as those plants go to pieces,

die, they will sink wherever they are—that is, they will sink in shallow water, you see, and in deep water —and I do not see why the same rule should not hold to fresh water deposits, except as fresh water deposits are more limited in quantity. In the case of marine deposits, you see, we have these currents sweeping down from the north and they have simply been pouring in here for millions of years from the same source and accumulating where the coastal conditions were favorable, whereas, in the case of fresh water deposits your diatoms go right in the water, the lakes and ponds—they are very common in pools, marshes and ponds—but you see that the chance there for a thick accumulation is comparatively small.

It has been my experience from my observations that oil in California has been derived from other formations than Monterey shales. I should say that the term "Monterey shales"—To say that oil was all derived from Monterey shales would be a mistake. I instinctively, in looking over lands that I have been called upon to examine for petroleum, have looked about for these diatomaceous shales. Now, those diatoms, you can see from the nature of the case, have been accumulating for an enormous period of time, and [754] they were not necessarily confined to the time in which those Monterey shales were being heaped up; so that we have older beds that have diatoms in them, and we have the later beds, and wherever I have found marine diatoms accumulated in considerable quantities, I have considered that

there was a legitimate place to look for petroleum, whether they happened to be in that particular age or earlier or later.

In some instances it is difficult to determine whether oil has been produced from a particular shale or from underlying or overlying that shale.

As to whether all the portions of a bed of Monterey shale would be equally producing I will say that these diatomaceous shales, being the source of oil, the oil does not as a rule stay in those beds. It passes out into an absorbing bed—a porous bed—where the oils accumulate. Now, the accumulation, therefore, depends on the presence of diatom beds to furnish the source, but the accumulations themselves, as you see, depend on the nature of the beds into which those oils pass; and you may have no beds there to receive that oil. The conditions may be unfavorable and the beds overlying them into which that oil can be expected to pass may vary in texture so that the oil accumulates more in one place than in another, so that the oil beds may be pockety even under conditions where you have diatomaceous beds of great thickness and evenness.

It would be difficult to say whether a particular part of these diatomaceous shales had produced oil any more than any other part. I should not think it would be possible to do that. That phase of the question never occurred to me. I generally assumed that the oil in those beds has passed off somewhere, and if the conditions for accumulation are favorable, that the oil would be found there, and if the conditions

were not favorable, the oil would have disappeared. [755]

I think geologists know pretty well what the conditions were under which these diatomaceous beds were laid down. But we are not surprised at all to find, in tracing out these same beds over a large area, that in some places they are gone entirely—that there are not any—that they have been removed by erosion or that they were not deposited there at all; or, if they were deposited, they were deposited rather thinly and erosions removed the thin edges of the beds. I don't think there is much question about the geographic and physical conditions under which they were deposited.

As to whether there are any Monterey shales in California that do not yield oil, I will say, I don't know with absolute certainty whether that is true or not. I have found, for instance, in the coast ranges in,—in the Santa Cruz Range—between the Santa Clara Valley and the ocean there, that there are here and there in beds Monterey shale; and prospecting has been done for petroleum, but they frequently find not oil in paying quantities, but a little bit of it in those places. And they are usually places where the deposits are rather thin and, I should say, at first blush, that they are not places that are worth while prospecting.

By thin deposits I mean twenty-five or thirty feet thick, or something like that. Of course, you have to bear in mind, in connection with that statement, that those same beds down towards the southern end of

the San Joaquin Valley have a thickness of over five thousand feet, and a great thickness like that immediately would make a competent geologist prick up his ears, because he would say, "Here is a chance for an enormous accumulation of oil."

The thinness of the deposits may indicate that they were originally so, or that they are the result of erosions and changes. If they occur so that you have some other kind of rock [**756**] underneath the shales, and then a thin layer of ten or fifteen or twenty or thirty feet or so of those other shales, and then another kind of rock such as sandstone or conglomerate or almost anything else, overlying that comformably—fitting down over it—without any evidence of erosion, you would say they never were deposited there. But if you find these shales exposed at the surface, of an irregular surface, evidently cut in two by streams,—in a case of that kind you would say, "We don't know how thick those beds are, unless we can get the evidence around in the neighborhood", because in that case the thinness is due to erosion.

When I first went into the McKittrick District in 1900, I visited the Temblor Range. I had two assistants working with me to do topographical work, and we were mapping an area of several square miles, in detail, and my impression is I must have been there something like ten days or two weeks working on that geology.

I made quite a careful examination during that period for the purpose of reporting on oil possibilities and reached the conclusion that there was oil,

probably in paying quantities, on the property, if the wells were put down at certain points; and I located the wells and they found the oil, but I cannot say whether in paying quantities or not. From my surface examinations I could not determine with any degree of exactness whether there was oil there in paying quantities. That had to wait the test of the drill.

After 1900 I was not in McKittrick until two or three months ago. I was up around Maricopa and Taft and that part of the country, and the Buena Vista Hills, a couple of years ago. My attention was not called to the Elk Hills at that time further than I would naturally notice in driving past there. I noticed the formation and drew my conclusions as to an anticlinal structure there. I had no occasion on that trip to make any particular [757] examination of the Elk Hills. I examined the Buena Vista Hills and reported to a firm of lawyers in Los Angeles, whose names I do not remember. I don't remember the sections examined on that occasion. There were several of them. I examined some lands through Sections 1, 2 and 3, I think, in 32-24. I was not there more than three days, I should say. I prepared a written report as to the result of that examination, which I sent to the lawyers mentioned above.

At that time there was drilling going on in the Buena Vista Hills, there were a good many derricks around there and I think oil had been struck in the Buena Vista Hills. My impression is that oil had been obtained in one well.

Last February I spent part of one day near the center of the Elk Hills. I was there two days in that vicinity. We drove out from McKittrick up through 30-23.

On that occasion I went to what has been referred to as an oil seep. Near the middle of the northwest quarter of Section 32-30-24, about on an anticline, are oil seeps. I did not attach much importance to that seep. I felt so confident of the importance of all that property for petroleum, and my experience with oil has been that if you have an oil yielding horizon or bed, covered over with a thick impervious stratum, that it may happen that the evidences of oil itself will never come to the surface, and that you could, in a region that was otherwise favorable, advise companies to put their wells down absolutely regardless of whether there is any seepage there or not, and if I found the seepage there, I should simply say to myself that it is more or less confirmatory of the other things.

The seepage was important as an indication of what was underneath. I did not, on that occasion, have any test made of that seepage.

It is a little difficult to say in how many places [**758**] seepages were found because sometimes you have a slope of the hills where the soil or sand has crept down over and concealed the outcrop, and you may find a dip here and then thirty or forty feet away find another exposure, and fifty feet away another one, and a hundred feet away another one, and they may all be manifestations of the same

thing; and I regarded those seepages there, so far as any indication of the presence of petroleum was concerned, as all one thing. I did not observe any seepages of that kind elsewhere on that trip in the Elk Hills.

Even if I had not seen that seepage my opinion would have been, owing to the formation of the Elk Hills, that they were suitable for the accumulation of oil, but that would not necessarily mean that they had accumulated oil. That could be determined only by exploration. I suppose there are promising formations giving indications of adequate reservoir space for the accumulation of oil, that do not produce oil in paying quantities. I should say such things do occur.

I can illustrate such occurrences perhaps best by referring to a place in Pennsylvania where the anticlinal folds sometimes run for a long distance. Those folds in the rocks have this peculiarity; that they will wrinkle or arch, when the rock will rise until it comes to a certain height, and then plunge down and go down into a sort of a saddle, and come up again, and that sort of a thing may be traced across the country sometimes for maybe fifty miles or more. Now, in a region where the oil is distilled or let into a porous rock underneath a structure of that kind, you can see that the tendency is for the oil to be trapped underneath these big domes. Suppose you had an oil company and the geologist looked at that whole anticline. The geologist would naturally say "Look for your petroleum along where these domes are." But, at

the same time, that whole arch there is practically an inverted arch or trough under which the petroleum accumulates. Now, there[**759**] is an end to the petroleum somewhere. It is not going to accumulate everywhere in that entire arch. So, you can bore holes right along the crest of the anticline and in some places get great quantities of petroleum and in other places you won't get any at all, because the water crowds the petroleum up underneath there.

There might have been an anticline broken across and so dislocated that the petroleum might have floated right out and it might have come out to the surface, especially on the side that is uplifted, so that it would be floated out to the surface and lost. There are sometimes processes going on in the oil beds where the oil is deposited, which would make it unprofitable to get out the oil. The case that I have in mind as illustrating it, is in the vicinity of the city of Santa Cruz, in this state. There is a great bed there of asphaltum, that is worked for the asphaltum, and it seems that the bed is simply a deposit of asphaltum that has oxidized so that it is no longer in the shape of petroleum—you can't pump it out, or it won't flow out; it is too thick.—

If the oil-yielding rocks did not underly or were not close to the anticlines, I should not expect oil under them. I should naturally expect that the amount of shale from which the oil is derived will have a bearing upon its productivity. The impervious strata between the oil-producing shale and the sand beds or reservoir would also have an effect upon the

productivity. It would have a tendency to shift the localization of it. That very likely accounts for the discovery of oil in large quantities in one place and the failure to obtain it in other places within a short distance. It is necessary for the favorable accumulation and profitable development of oil that the sand beds be of some considerable thickness and extent. It would be hard to say just how thick those beds ought to be; and these porous beds in a gently folded region covering and gathering its oil over a large area might yield just as much oil as a thicker porous bed gathering oil [760] over a small area.

I do not think there is any way to determine from an examination of the surface how large an area yields oil at any particular point. It sometimes happens that the sand beds become hardened so that they cease to be media through which oil can pass, and it occasionally or even frequently happens that the sand beds pinch out between hard layers of strata. That is one of the reasons that one well is not a complete test of the character of any given territory, and as to other reasons therefor, I will say it depends on the localization of the oil. For instance, if you take the crest of an anticline—suppose we know where it is, and the well is put—and the rocks, we will say, dip towards the north at a pretty steep angle, and the well is put down, a thousand or two thousand feet to the north of that anticline, to a given depth and it gets no oil, that should not be considered as settling the question as to whether petroleum occurred in that anticline or not, because the well, at the same depth,

might reach a petroleum-bearing bed if they went to the right place. You see, the beds dipping toward the north, your petroleum-bearing horizon comes near the surface at the axis of the anticline, and then, as you go away toward the north, on a flat surface, we will suppose, and put down your well, you see the depth of your well will have to be enormously greater there than it would have to be at the anticline.

I do not think that the presence or absence of water in the strata carrying oil could be regarded as decisively having a bearing upon where you would find the oil—certainly not in the light of what I understand to be the well-known fact in regard to the occurrence of petroleum in the San Joaquin Valley today. It used to be considered that if a well were put down and struck water there was no use looking for petroleum there; but I understand that the water has been shut out, in a number of instances, and the well has gone on deeper and found the petroleum below the water horizon. [761]

It is my general impression that the view I have first mentioned generally prevailed in the California oil fields until a few years ago.

Other things permitting, water would force the oil into the anticline to where there is a large accumulation of gas developed at the crest of the anticline. The oil would stay on top of the water and the presence of water would have considerable bearing upon whether you would find oil in the anticline or not. These conditions can not be determined from a surface examination.

It is not possible from a surface examination such as I made of the Elk Hills, to determine the depth of the oil sands. There are only two ways in which that can be determined. One would be to work out the geology with great care and detail over the region—not only in the Elk Hills themselves, but in the surrounding country—to find in what horizon the oil accumulates, and then by fitting one's evidence together and studying it one might come to the conclusion in regard to the depth at which the well would reach the oil-bearing bed. The only other way would simply be to put a well down and test it.

I have not made sufficient examination with that question in mind, to be able to tell whether you could ascertain the depth without a well, in the Elk Hills. I made no attempt to do so. The purpose of my examination was to ascertain, generally, whether that could be considered as possible oil territory, and I made no attempt to determine whether it was paying oil territory.

The general geology of the Elk Hills would lead me to infer that Monterey shale was under there and in great thickness.

As to whether or not the formation which has been termed the "McKittrick" formation conforms exactly or not to the underlying formation, I do not know. In order to answer that question very precisely it would be necessary for me to study the geology more in detail than I have studied it there. [762]

It is quite possible that the underlying formations in the Elk Hills had been very extensively folded or

faulted or eroded before the deposit of the McKittrick formation. That could be determined only by extensive exploration. It would require a section through there, obtained by boring or in some other way, in order to determine that. Of course, one could work out the geology of the diatomaceous beds around there and find out whether the axes or folds run under this McKittrick formation, and they might be able to make it out fairly well. Whether that is true or not, I would not undertake to say at present.

I think it very likely that the reason why petroleum was called "coal oil" is found in the fact that it was originally supposed that petroleum was derived from coal.

Ralph Arnold did more work for the United States Geological Survey than any other man in connection with the oil geology in California. He has the reputation, deservedly, of being an able geologist, and to my knowledge, has devoted a great deal of time and study to the oil geology of California. As to the other geologists who were former students of mine, I expect that Robert Anderson has, next to Mr. Arnold, devoted a greater amount of time to the scientific study of the oil formations in California. He was Mr. Arnold's assistant for some years, and after Mr. Arnold resigned from the United States Survey, Mr. Anderson was put in charge of the petroleum work in California by the Survey.

It is not ordinarily possible for a geologist, or practical oil man, to determine from the existence of an oil bed at a particular point, that the bed continues

for any particular or definite distance in all directions or any direction, partly because the oil comes to an end where it rests on the water; partly because the porous beds are not infrequently more or less lenticular in form; that is, they may pinch out and come to an end of themselves in that way, by thinning down, or they may be interrupted by [763] breaks, what we call faults or displacements of beds, so that the beds may be chopped square off.

REDIRECT EXAMINATION OF JOHN CASPAR BRANNER.

By saying that the Monterey shales in the lower part of San Joaquin Valley are quite thick, I mean that those shales were laid down in the bottom of the sea in approximately horizontal beds, and those beds can be seen where the rocks are openly exposed in cuts, as they are in some places around here, where you can see them like one board lying on top of another, and the thickness through, measured right straight through those beds as though you were measuring through the thickness of a book, amounts, in that region, to something like five thousand feet.

The Elk Hills are situated right about in front of the thick portions of these Monterey shales. The thickest parts, beginning up here some way north of McKittrick, come—oh, perhaps twenty miles or more, or so, northwest of McKittrick, and from there down to the vicinity of Maricopa, is the very area in which those shales have those great thicknesses, and these Buena Vista Hills and the Elk Hills lie right off towards the east, northeast, of those hills.

I would not expect the shales under the Elk Hills to be so faulted as to influence the disadvantageous accumulation of oil there. In fact, I anticipate that if I could take off the oil-bearing beds, the whole series—strip them, right away, down until we came to the Monterey shales—that I might find those shales more or less folded and ending up right against the old ground surface on which these later and oil-bearing beds have been laid down; but, so far as structural relations are concerned, I should consider that a sort of thing rather favorable than unfavorable to the accumulation of oil in the overlying beds.

From my examination and knowledge of the neighboring [764] regions, I have no reason whatever to believe that the oil-bearing sands in the Elk Hills are thin, hard or pinched out. That is a general conclusion. It is a generally recognized fact in regard to any sediment laid down in the water, especially if they are coarse.

I am familiar with the methods of quartz and gold mining and with petroleum mining, and should consider that, so far as the metal mine was concerned, the finding of traces of gold or silver on the surface of a ledge or lode did not amount to anything more than the merest suggestion, whereas in the case of the Elk Hills, I consider that the evidence is worth going ahead without any other evidences than the geology itself and disregarding any drilling or actual development in the hills themselves by man, and that evidence existed as early as 1900.

In coal mining one can get a very close idea of the tonnage to be taken out under a given tract of land; that is, we can calculate the product. It is the rule, in fact, in the anthracite regions in Pennsylvania, that the company will have in its reports by its geologist "We have so many acres of land. This land yields so many tons an acre", and they count on that just exactly as if it were money in the bank. Now, in petroleum mining, of course you can't do that exact thing; there is an element of uncertainty about it that you don't find in coal mining.

There is no such uncertainty in petroleum mining as there is in quartz mining. I should say that next to coal mining, the mining of petroleum, based solely upon geologic evidences, was the surest kind of mining that I know anything about.

I had not heard of any experience which indicated that the theory that the presence of water meant no oil existed in 1904. If I had heard it, I have forgotten it.

I should expect to find certain parts of the folds in Elk Hills more productive than others; but it would be a pretty [765] nice question to say just where the petroleum is going to come to an end. I don't think anybody could tell.

It seems to me that the best chances for oil in the whole country in that region were in the Elk Hills and the Buena Vista Hills. In forming that opinion I took into consideration the possibilities of the non-occurrence of oil resulting from the conditions of the sand and the pinching and hardness of the stratum,

and other interruptions; I think that any reasonable geologist knows that there is a certain amount of risk in any kind of petroleum mining. He counts on that.

I should say, decidedly, that the conditions in the Elk Hills are such as to warrant the ordinarily prudent man in the investment and expenditure of money with a reasonable expectation of developing a paying oil property. But I should like to explain this, that if we went back to the conditions as they existed there before any wells were put down in either of those hills and if I had been the consulting geologist for some company or party who anticipated putting down wells there, I should have put it to him in this way: "In my opinion the geology, altogether, of the mountains to the west, and the floor of the valley, and everything taken together, strongly suggest that these hills are the best place in which to put down oil wells. There ought to be, so far as we can see, enormous quantities of petroleum under those two group of hills. Now, there is nothing absolutely certain about putting down an oil well in a new region; there is a certain amount of risk about it and you can't get away from that risk." And I should have said to those men: "If you have got money to risk and you can afford to lose it, put it in there; if you can't afford to take any risks, you had better let somebody else do it."

I mean that anyone who had money to risk and who might afford to lose it might get larger returns for his money than he would from an ordinary investment. Perhaps I ought to say that [766] one of the

reasons for that risk lies in the fact that there is no way, short of putting a well down there, to determine the thickness of the strata that overlie the oil-bearing bed. As everyone knows, who knows anything about petroleum wells, you may have an enormous volume of petroleum so deep that you can't get it, and I should have said that may be the possibility there. Of course, the developments there have shown that the oil is there and the question now, of course, is entirely different from what it would have been before those wells were put down.

It is my belief that there is an enormous petroleum deposit in those hills but I have made no attempt to work out the details as to the depth and am not prepared to state whether it would be twenty-five hundred or five thousand feet.

RE-CROSS EXAMINATION OF JOHN CASPAR BRANNER.

I did not mean to say that I could tell whether the oil-bearing beds under the Elks Hills were folded, faulted even, or what condition they were in; that I could not determine. It might possibly be folded and overturned.

I don't know when I first heard of the change of view in reference to water being found in oil wells; it was comparatively recent; certainly within three or four years, but I would not say exactly. Prior to that time water in a well had been regarded as an almost fatal condition.

RE-DIRECT EXAMINATION OF JOHN CASPAR BRANNER.

I should have said that I did not know whether water, under the conditions mentioned above, would be fatal or not, because my observation in regard to water led me to believe that it could be separated from oil horizons and that it was separated from them; but the well-drillers all protested so, that, as far as my experience went, when they got to water they gave it up as no use. [767]

In reaching my conclusion from observations in 1912, from the geological evidences alone, that the Elk Hills was an enormous oil-bearing zone, I did not take the possible existence of water there, into consideration. I did not consider that it bore upon the question one way or the other. As a geologist, I would say that I would be disposed to pass the question of the interference of water along to the mechanical engineers who had charge of the boring, and should tell them to take care of the water and shut it off and go along with their boring and pay no attention to that.

RE-CROSS EXAMINATION OF JOHN CASPAR BRANNER.

I do not mean to be understood as saying that I actually determined that that territory did contain an immense quantity of oil. I meant to say that if I had gone over that ground in 1900 with a view to saying whether or not those were probably petroleum lands, I should have, under those circumstances,

pronounced them oil lands and recommended their exploitation to anyone who was able to take the risk. I realized that the risk might result in a total loss of the investment.

REDIRECT EXAMINATION OF JOHN CASPAR BRANNER.

After I went there two years ago and after I went there two or three months ago, after seeing the general geology of those two groups of hills, I concluded that they were both favorable for large accumulations of oil. [768]

GEORGE A. STONE, a witness called and sworn on behalf of the plaintiff, testified as follows:

DIRECT EXAMINATION.

I am 63 years old and first went into the employment of the Southern Pacific Company in 1865, as flagman on the Central Pacific survey.

From 1897 to the latter part of 1907 I was employed in the land department of the Southern Pacific Railroad Company and am now a pensioner.

While employed in the land department I knew Mr. Eberlein, who was acting land agent. I was his clerical assistant and as such had something to do with the preparation of lists of lands which were claimed by the Southern Pacific Railroad Company under its grant. I supervised the preparation under Mr. Eberlein's direction.

I am acquainted with selection list No. 89 of the main line grant and had to do with its preparation.

It was prepared in 1903, probably in September or October.

I am acquainted with the Township just east of McKittrick but don't remember its number just now. It is probably 30-23. The odd numbered sections from 15 down to 35, excepting section 31, are embraced in that list.

That list was prepared under Mr. Eberlein's direction. The lands mentioned were placed in that list at the suggestion of Mr. E. T. Dumble, I think. Mr. Dumble was consulting geologist of the Southern Pacific Company at that time.

I do not know that Mr. Dumble had examined the lands. I never knew what his duties were. I made no examination of the lands in suit, myself, for the purposes of selecting them. Such knowledge as I had of the lands was general in character from my general knowledge of the country. I had been, frequently, in the country for two years preceding. [769]

I was discharged from the services of the company and was not reinstated. Mr. Eberlein directed me to go to the field to examine certain lands and I felt that my health was not equal to the task and declined the work, and, on account of that, as we could not agree, he said: "Well, your services will terminate, then, on the 31st of December, 1907", and my services ceased then.

I naturally felt some bitterness about being let out and probably called the matter to the attention of some officer of the company; I do not recollect that.

I regarded the selection of these lands as irregular. Mr. Dumble, as the geologist, I thought pressed the selection for reasons best known to himself. I supposed, as geologist, he thought they were oil lands. He pressed the selection of this land probably within thirty days prior to the list in 1903, not earlier than September or later than November.

The list filed in the Visalia Land Office contained the lands in suit. I don't think it contained other lands. As I remember, the list was incorrect in some way when filed, and later some different bases had to be substituted for a portion of the lands selected. I am not sure of that. It is my recollection that there was a rearranged list. I think Mr. William Wicks, a clerk in the office, wrote the description to the land in the list No. 89 referred to, which has just been handed to me.

After I was subpoenaed as a witness in this case I went, of my own accord, and informed Mr. Singer of that fact, and this morning, of my own accord, I told Mr. Lewers, attorney for the company, that the list was made up at the suggestion of Professor Dumble.

I am a pensioner of the Southern Pacific Company. At the time the selection was made I was on the pay roll of the Southern Pacific Railroad Company. Mr. Dumble's name did not appear on [770] the land department roll of the Southern Pacific Railroad Company.

I had authority to sign Mr. Eberlein's name to correspondence but not to selection lists. I had charge

of the office, generally, in his absence for the purpose of correspondence and some of the routine business.

CROSS EXAMINATION OF GEORGE A. STONE.

I wrote to Mr. Kruttschnitt about my discharge as I thought I had been unjustly treated, and I had every reason to. I still feel the same way about it.

I do not think I said anything to him about what I considered to be an irregularity and I don't remember complaining about that to any of the officers of the company. I was friendly with them after my discharge.

REDIRECT EXAMINATION OF GEORGE A. STONE.

I have no recollection of stating in my letter to Mr. Kruttschnitt that I would lay before the Department of Justice and give to the press what I considered an irregularity in the selection, unless I was reinstated. I probably threatened at one time to do so.

I have a faint recollection of the Confidence Oil Lease but don't remember the leases by name now. I remember the Zier Oil Company, which, I think, had a lease with the Southern Pacific Railroad Company and there are a number of other instances where the railroad company had leased certain of its oil lands to individuals.

I think there was a man named Josiah Owen in Mr. Dumble's department. I remember, sometime the latter part of the time I was in office, seeing him.

I think Mr. Dumble had charge of the leases and reports were sent to the Land Department as to the amount of oil removed [771] at the time when different wells were in operation under these leases, and various other matters connected with the leases through his office. They were written reports, I think.

RE-CROSS EXAMINATION
OF GEORGE A. STONE.

Until Mr. Mills called my attention to this letter to Mr. Kruttschnitt, or seemed to think I had written one, I had forgotten about any letter to him. I am not sure that I made a threat to Mr. Kruttschnitt or other officers of the Company, that I would complain to the Government about this matter. I was mad and likely, in my anger, went further than I would have if I had not been angry. I was anxious to make my case appear as strong as I could. [772]

On Wednesday, May 15, 1912, at 2 o'clock p.m., the further taking of testimony herein was resumed pursuant to the adjournment: Willis N. Mills, Special Assistant Attorney-General and A. I. McCormick, United States Attorney, appearing on behalf of the plaintiff, and Charles R. Lewers, Esq., appearing on behalf of the defendants.

Mr. Mills—Please swear Mr. Eberlein.

Whereupon, CHARLES W. EBERLEIN was called on behalf of the plaintiff and duly cautioned and solemnly sworn to testify the truth, the whole truth and nothing but the truth.

Mr. Mills: Mr. Eberlein, will you produce the

data, memoranda, which you were commanded to produce in response to the subpoena?

Mr. Eberlein: There it is. (Pointing.)

By Mr. Mills:

Q. Mr. Eberlein, for the purposes of this record I will ask you your full name, and your present place of abode?

A. Charles Wood Eberlein. My present post-office address is Callahan, Siskiyou county, California.

Q. Were you at any time in the employment of the defendant Southern Pacific Railroad Company.

A. Railroad Company?

Q. Yes sir.

A. Yes sir.

Q. During what years, Mr. Eberlein?

A. From 1903 until 1908.

Mr. Mills: At this time, Mr. Lewers and Mr. Shoup, I want to ask you, with reference to certain exhibits I want to offer in this case which have evidently passed through the fire and are in [773] a carbonized state and are actually falling to pieces because of the frailty of the exhibits, whether you will object to stipulating, after examination by you, that we can withdraw them and substitute certified or compared copies?

Mr. Lewers: Well, when we see them we can tell.

Mr. Mills: In order to preserve them. You will have no objection to that, will you, after you have examined them?

Mr. Lewers: I can't tell until I see what they are. We may want them in the record.

Q. By Mr. Mills: I show you, Mr. Eberlein, what purports to be a certified copy of a resolution of the board of directors of the Southern Pacific Railroad Company, dated September 2, 1903, signed by Mr. Willcutt as the secretary of that company. Will you state what it is.

A. Well, that is apparently the resolution of the board of directors of that date appointing me as acting land agent of the company. That is my handwriting on the back. I have not seen this document for years. I had forgotten all about it.

Mr. Mills: We offer this in evidence.

Mr. Lewers: We object to the introduction of this document on the ground that no sufficient foundation has been laid, in that the origin and custody of this document has not been accounted for, and for all that appears from the evidence already introduced this may not be a genuine document.

Mr. Mills: In response to that we will say that before we finish the testimony in chief we will show in whose custody it has been.

The certified copy of the resolution last referred to and offered in evidence is marked "Plaintiff's Exhibit DD—L. L."

Q. Are you acquainted with the handwriting of Mr. J. H. Willcutt, secretary of the Southern Pacific Railroad Company?

A. I am acquainted with his signature. [774]

Q. Yes. I mean his signature.

A. Yes.

Q. Will you state whether that is his signature on Government's Exhibit DD?

A. Yes, sir; I believe it is.

Q. Will you refer to the seal on the document and state whether or not that is the seal of the corporation whose board of directors purports to have issued that resolution?

A. That is the Southern Pacific Railroad Company's seal.

Mr. Mills: Do you deny, gentlemen, Mr. Lewers and Mr. Shoup, that that is the signature of Mr. Willcutt or that that is the seal of the Southern Pacific Railroad Company?

Mr. Lewers: I would prefer you would prove your case in your own way.

Q. By. Mr. Mills: I show you this paper, Mr. Eberlein, and ask you whether you have ever had that copy prepared—it seems to have been dated in April, 1904,—from any other paper?

A. This must be a copy of the resolution. That is my handwriting on the back.

Q. I refer to this second page, which is not on that paper. Was that prepared from any paper saved from the conflagration of 1906, do you know?

A. I couldn't say. I have not seen that. I have not seen that paper.

Q. Now, Mr. Eberlein, will you state the circumstances connected with your appointment as acting land agent of the Southern Pacific Railroad Company, in full?

A. More than just the actual fact of appointment?

Q. Yes. That is, who directed the appointment, if anyone, and how it came about?

A. The appointment, as I remember, was made at the request of Mr. Kruttschnitt. [775]

Q. Will you give his full name, please?

A. Julius, I think it is.

Q. Yes. And what office did he hold at that time?

A. He was vice-president and general manager of the Southern Pacific Company.

Q. Had you had any talk with Mr. E. H. Harriman, prior to that time, about being appointed to the position?

Mr. Lewers: To which we object, on the ground that it is calling for purely hearsay testimony, and that a corporation cannot be bound by the exparte and unofficial statements of any of its officers.

A. I had a talk with Mr. Harriman before I came west. I came west at his instance, but not to be acting land agent or to have any official connection with the roads.

Q. By Mr. Mills: Prior to your appointment as acting land agent had you been connected in any way with any other railroad excepting the—

A. The Union Pacific.

Q. Yes. And in what capacity had you gone into that company, Mr. Eberlein?

A. Well, as the representative of the vice-presi-

dent of the road in reorganizing the land affairs of the Union Pacific.

Q. Will you state the circumstances of how you came to be suggested to the board of directors of the Southern Pacific Railroad Company as acting land agent?

A. I came to San Francisco in June, I think, 1903, to take up the matter of the consolidation and reorganization of three land grants, and it was while engaged in that work that Mr. Kruttschnitt called for me and told me that it was very desirable to make some changes in the management of the Southern Pacific Railroad Company land department. He wished to retire Mr. Jerome Madden, who was then the land agent, and he wished me to agree to [776] take that place temporarily. To which I objected strenuously, as interfering with the other work that I was sent there to do and which I had on hand. I protested to the New York office against it.

Q. By "New York Office" what do you mean? What office?

A. To the office of the Harriman lines, the Southern Pacific Company, in New York. But Mr. Kruttschnitt asked me as a personal favor to accept that, and he thought in six months he could find somebody. And that is how I came to be appointed.

Q. You entered upon the discharge of your duties upon what date, as acting land agent?

A. I believe the 3rd of August, 1903. I believe it was August. I would not be sure. I have nothing to show.

Mr. Mills: In order to get a statement into the record of the duties of the acting land agent, I will read into the record, so far as I am able to, from this Exhibit DD, as follows:

SOUTHERN PACIFIC RAILROAD COMPANY
RESOLUTION ADOPTED BY BOARD OF DIRECTORS—SEPTEMBER 2, 1903.

. . . . . .

RESOLVED AND ORDERED THAT C. W. EBERLEIN be and he hereby is appointed Acting Land Agent of this Company, with full power to supervise and attend to all matters pertaining to land he Stat is granted by the United States to this company, or its predecessor, the SOUTHERN PACIFIC RAILROAD COMPANY, including the lands granted by the United States Government to the TEXAS AND PACIFIC RAILWAY COMPANY, and assigned and transferred by said Texas and Pacific Railway Company to the Southern Pacific Railroad Company, predecessor of this company, and said C. W. Eberlein as such Acting Land Agent, is hereby given full power to manage, conduct and carry on the business of the Land Office of this company and subject to the approval of the President or any Vice-President of this Company, to sell, contract 11, demise and let all or any of its said [777] lands and to sign his name for this Company to all contracts, agreements, leases and other documents as shall be necessary and requisite for the full, complete, effectual and proper management or disposal of its lands.

And he is hereby fully authorized and empowered to represent this Company in the United States Land Offices or before the officers thereof in person or through persons employed by him for that purpose, and to represent this company in all matters pertaining to its lands at all times and places.

RESOLVED, further, that all acts heretofore done by the said C. W. Eberlein, as Acting Land Agent of Company, within the purview of the foregoing resolution, be and the same hereby are approved, ratified and confirmed.

I, J. L. Willcutt, Secretary of the Southern Pacific Railroad Company, hereby certify the foregoing to be a full, true and correct copy of a resolution adopted at a regular meeting of the Board of said Company, held this day.

WITNESS my hand and the corporate seal of said Company, this second day of September, 1903.

J. L. Willcutt,
Secretary.

(Seal: SOUTHERN PACIFIC RAILROAD COMPANY.)

(Endorsed:)

Resolution

Board of Directors Southern Pacific R. R. Co. Sept. 2, 1903, Appointing and Defining duties of C. W. Eberlein Acting Land Agent S. P. R. R. Co.

Q. Now, in the discharge of your duties as acting land agent, will you state generally, Mr. Eberlein, what functions you had as acting land agent?

A. Full charge and control of all the granted lands of the company.

Q. That included, did it not, the lands in the vicinity of [778] the lands in this suit which had then been patented in the McKittrick, Sunset and Coalinga fields?

A. Everything in the grant lands; such lands in those fields as were granted lands of the Southern Pacific Railroad Company.

Q. Do you know Mr. George A. Stone?

A. Yes.

Q. The witness who testified here this morning?

A. Yes sir.

Q. Who and what was Mr. George A. Stone during the time he was connected with the Southern Pacific Railroad Company while you were acting land agent?

A. He was my assistant almost the entire time I was acting land agent.

Q. And as assistant to you did he hold the title of assistant acting land agent?

A. Assistant to the acting land agent.

Q. What was the nature of his duties as such officer?

A. Well, he represented me in my absence, ran the office, ran the department.

Q. In doing that what powers did he have?

A. He had all the powers necessary to run that department during my absence, with the exception only of signing deeds or doing such other acts as were limited to the acting land agent by the board

of directors. He did not sign the selection lists; I signed those in person, because I believe that is required by the government. But he did everything else, in the way of signing vouchers, approving payrolls. He signed leases for me.

Q. Do you mean to say that money passed by the company to other parties on his approval?

A. Yes sir. It was necessary that he should have pretty full power, because I was absent in New York sometimes three months at a time. [779]

Q. Now, during that time did he have officially any power to sign correspondence relative to matters pertaining to that office?

A. Oh, yes. He dictated letters on his own initiative—had to in order to carry on the business of the department.

Q. Then, in fine, I understand you to say that he exercised all the functions and duties which you as acting land agent were empowered to do, excepting those which were especially limited to you personally?

A. Yes sir.

Q. Is that correct?

A. Yes sir.

Q. How long was Mr. Stone employed in that capacity, to your knowledge?

A. He was in the department when I took hold of it, as the land examiner, the field agent of the department; and after I came there he never went into the field again as a field agent. He became my acting—

he became assistant to the acting land agent, I think in the same month that I was appointed.

Q. Was his appointment by you?

A. Yes.

Q. Was that appointment in any way required to be submitted to anyone else for approval?

A. Well, it may not have been required, but I did submit it.

Q. And to whom?

A. To Mr. Kruttschnitt.

Q. Who at that time was what officer?

A. He was the vice-president and general manager.

Q. Of what company?

A. Of the Southern Pacific Company.

Q. You mean the Kentucky corporation? [780]

A. Yes sir.

Q. And defendant in this suit?

A. I don't know who the defendant in this suit is.

Q. Well, that company is a defendant in this suit, the Kentucky corporation.

A. Well.

Q. Were you acquainted with a man by the name of Josiah Owen at any time while you were in the land department of that company?

A. I think I knew Mr. Owen to speak to. I never had any business with him.

Q. Well, did you ever meet a man by the name of Dumble?

A. Oh, yes; I knew Professor Dumble well.

Q. Now, was Mr. Owen, to your knowledge, in any way connected with the office of Mr. Dumble?

A. So I always understood—that he was an assistant.

Q. And in what department was Mr. Dumble?

A. Why, he was in a class by himself, I think—he was the geologist.

Q. He was the geologist of what company?

A. Well, I don't know that I can answer that. I have always supposed of the Southern Pacific Company.

Q. Well, as geologist of the Southern Pacific Company did he have anything to do with lands of the Southern Pacific Railroad Company?

A. No sir.

Q. That is, officially, you say?

A. No sir; he had none that I know of.

Q. But he did attempt, did he not, to have something to do with the lands of the Southern Pacific Railroad Company?

A. Oh, he "butted in" frequently.

Q. Now, I show you this paper, Mr. Eberlein. Will you [781] please examine it and tell me where the original is, if you know, or what became of it? What is that paper?

A. That is a copy of a letter that was written to me by C. H. Markham, 2nd of August, 1904. It is a copy of a badly carbonized letter that came out from the ruins of our vault and was copied.

Q. Do you know what was done with the original after this copy was made?

A. Oh, it was utterly destroyed in the transcription of it. It was badly carbonized. There was a file there that referred to this certain matter, and it was very badly damaged and under my order it was copied—everything that could be copied out of it—and compared as carefully as could be.

Q. I notice on this paper the names "Compared by H. K. and L. A." What do those initials refer to?

A. The "H. K." is Herman Koch, and "L. A." refers to Lottie Abrams. They were two clerks in the department who attended to the comparing of all that correspondence that was transcribed from the carbonized papers and documents.

Q. Was this copy made under your direction and supervision?

A. Yes sir.

Mr. Mills—I offer this in evidence.

Mr. Lewers—Object to the introduction of this, on the ground that no sufficient foundation has been laid, in that it appears from the testimony introduced that the witness did not himself copy this and it was not compared by him; and we object on the further ground that it is irrelevant to any issue in this case, and also that the signature of the original has not been identified.

Q. By Mr. Mills—This appears to pertain to a proposed lease [782] between the Southern Pacific Railroad Company and the Kern Trading and Oil Company, dated August 2, 1904. Will you kindly read it again Mr. Eberlein, to yourself, and state

whether it is a true copy of the original which you say was destroyed?

Mr. Lewers—We object to that question, on the ground that it already appears that the witness has not compared it himself, and there has been no identification of the original instrument.

A. I believe it is.

Mr. Mills—I will read this into the record:

COPY

"Southern Pacific Company

San Francisco, Cal., August 2nd, 1904.

Mr. Chas. W. Eberlein,

Acting Land Agent, S. P. R. R. Co., City.

Dear Sir:—Enclosed is ten year lease dated August 2nd, 1904, to be entered into between the Southern Pacific Railroad Company and the Kern Trading & Oil Company.

You will note that I have signed this as President of the Kern Trading & Oil Company and would ask that you sign it as Acting Land Agent of the Southern Pacific Railroad Company, returning the lease to me when this shall have been done, in order that I may have it attested by Secretary Willcutt for both Companies.

Yours truly,

(Signed) C. H. Markham.

GLK SCT GLK

Enclosure:

Compared By: H. K.

L

A"

Mr. Mills—Mark that government's Exhibit EE. [783]

The letter last referred to and offered in evidence is marked "Plaintiff's Exhibit EE—L. L."

Q. I show you this paper, Mr. Eberlein. Will you state what that is?

A. It is a copy of a telegram, dated August 4, 1904, sent to me at Denver, from Mr. George A. Stone.

Q. How was that copy prepared?

A. It was prepared the same as the other.

Q. The same as the last exhibit?

A. From destroyed stuff that was very fragile—could not stand any wear at all—and it was copied to preserve what was in them.

Q. Is that original destroyed?

A. Yes sir.

Q. Was this telegram which I now have in hand and the previous exhibit marked government's Exhibit EE, before the fire preserved in any file in the usual course of business pertaining to the matters to which they referred?

A. That was a private file.

Mr. Mills—We offer this in evidence.

Mr. Lewers—We make the same objection.

Mr. Mills—I will read this into the record; and ask that it be marked Plaintiff's Exhibit FF.

COPY

"TELEGRAM

San Francisco, Cal., August 4th, '04.

Charles W. Eberlein,

care, C. E. Wantland, General Sales Agent, Union

Pacific R. R.

1025— 17th Street, Denver, Colorado.

Received yesterday from Mr. Markham lease to Kern Trading and [784] Oil Company for your signature.

Geo. A. Stone.

Compared By: H. K.
L
A"

Q. Will you please examine this paper, Mr. Eberlein, and state what that is?

A. That is a telegram from me, dated August 4th, 1904, to George A. Stone.

Q. That is a copy of the telegram, is it?

A. That is a copy of the original.

Q. What became of the original telegram?

A. It was destroyed as a result of the fire.

Q. And is this, the same as the other copies which have been introduced, an exact copy?

A. Exactly the same; compared copy, and belonged to the same file.

Q. Does this paper which I hold in my hand refer in any way to the telegram sent you by George A. Stone and marked Exhibit FF?

Mr. Lewers—I submit the paper itself is the best evidence.

A. It is an answer to it.

Mr. Mills—We offer this in evidence, and ask it to be marked Plaintiff's Exhibit GG.

Mr. Lewers—The same objection.

Mr. Mills—I will read this into the record:

COPY

"TELEGRAM

Denver, Aug. 4th, '04.

Geo. Stone,[785]
Dept. S. P.
S. F.

Hold Kern Trading and Oil Company lease for execution until my return carry out orders I have given no lands for sale at present and no oil lands for sale at any price do as told without reference to me. Leave for Omaha to-morrow afternoon Omaha Saturday.

CHAS. W. EBERLEIN.

Compared By: H. K.
L
A"

Q. I show you this paper, Mr. Eberlein, which purports to be a copy of some original. What is that paper?

That is a copy of a letter addressed by George A. Stone, assistant to acting land agent, to C. H. Markham, vice-president and general manager of the Southern Pacific Company, dated August 4th, 1904.

Q. What became of the original of this letter?

A. It was destroyed just as the others were. The same file.

Q. The same statement made applies to this letter as applied to the others?

A. Applies to this; everything in this file.

Mr. Mills—We offer this in evidence and ask it to be marked Plaintiff's Exhibit HH.

Mr. Lewers—The same objection.

The copy of letter last referred to and offered in evidence is marked "Plaintiff's Exhibit HH—L. L."

Mr. Mills—I will read this into evidence. [786]

COPY

"Dictated
S

August, 5th, 1904.

Mr. C. H. Markham,
Vice-President and General Manager,
Southern Pacific Company, San Francisco, California.

Dear Sir:

Your favor of the 2nd instant, addressed to Mr. Charles W. Eberlein, Acting Land Agent, inclosing ten year lease, dated August 2nd, 1904, between the Southern Pacific Railroad Company and the Kern Trading and Oil Company, with request that Mr. Eberlein sign it as Acting Land Agent and return it to you, was received after his departure on a short trip to Denver.

I have called it to his attention, and he has advised me that he will take up the matter immediately upon his return.

Yours very truly,
GEO. A. STONE,
Asst. to Acting Land Agent.

RSG.
Compared By: H. K.
L
A"

Q. Mr. Eberlein, I show you this paper. Will you state what that is?

A. That is a copy of a letter from Mr. C. H. Markham to me, dated September 5th, 1904.

Q. What became of the original of this letter?

A. Destroyed the same as all the rest of the letters in that file.

Q. And your statement with reference to this letter applies the same as to the other exhibits that I have offered?

A. Exactly. [787]

Q. That were taken from that file?

A. Yes sir.

Mr. Mills—We offer this in evidence, and ask that it be marked Plaintiff's Exhibit II.

Mr. Lewers—The same objection.

The copy of letter last above referred to and offered in evidence is marked "Plaintiff's Exhibit II—L. L."

Mr. Mills—I will read this into the record.

COPY

"Southern Pacific Company

San Francisco, Cal., September 5, 1904.

Mr. Chas. W. Eberlein,

Acting Land Agent,

San Francisco.

Dear Sir:

Referring to my letter of August 2nd on the subject of ten year lease between the Southern Pacific Company and the Kern Trading & Oil Company, and which was answered by your Mr. Stone, August 5th,

to effect that owing to your departure from the City matter would have to await your return, would ask when I may expect to receive deed in question.

Yours truly,
(Signed) C. H. Markham
GLK

BCE
Compared By: H. K.
L
A"

Q. I show you this letter, Mr. Eberlein, and will ask you [788] what it is, what it refers to.

A. That is a letter from myself to W. D. Cornish, dated September 10, 1904. It is a copy of an original now destroyed, the same as all the rest in this file.

Q. Who was Mr. Cornish at that time?

Q. By Mr. Lewers—You say it was a copy of the original?

A. It is a copy of the original that was destroyed.

Q. By Mr. Mills—And is this the same as the others I have offered—true and correct copies of those originals which were destroyed?

A. As I believe and understand, it is a true and correct copy of the original.

Q. Who was Mr. Cornish?

A. He was vice-president of the Southern Pacific Company, resident in New York.

Mr. Mills—I offer this in evidence and ask that it be marked Plaintiff's Exhibit JJ.

Q. By Mr. Lewers—Is it a copy of an original or copy of a copy?

A. Copy of the original.

Q. And was the original returned from Mr. Cornish?

A. Oh, no; pardon me. That would have to be a copy of the file, of the carbon copy of the file. I will add that all those letters that are addressed by me, of course these are copies of carbon copies.

Q. By Mr. Mills—Yes. They were all contained in that file, were they not?

A. All in that file, kept together.

Mr. Lewers—We make the same objection, and the additional objection that the original is not accounted for. [789]

The copy of letter last referred to and offered in evidence is marked "Plaintiff's Exhibit JJ—L. L."

Mr. Mills—I will read this into the record:

COPY

"Dictated

September 10. 1904.

Hon. W. D. Cornish,
Vice-President, Southern Pacific Company,
120 Broadway, New York.

Dear Sir:

For your information, I beg to hand you copy of letter of this date to Mr. Markham, setting forth objections to the lease Southern Pacific Railroad Company to the Kern Trading and Oil Company.

Yours very truly,

CHARLES W. EBERLEIN,
Acting Land Agent.

JRH
INC
Compared By: H. K.
L
A"

Q. Who was J. R. H?

A. He was my stenographer, J. R. Hurdie.

Q. I show you this letter, Mr. Eberlein. State what that is.

A. That is a copy of a carbon copy of a letter I sent to C. H. Markham September 20, 1904.

Q. Is that a copy prepared in the same way you have mentioned as to these other letters?

A. The same way.

Q. And from that same file? [790]

A. The same file.

Q. And the original copy from which this was taken has been destroyed?

A. Yes sir.

Mr. Mills—We offer this letter in evidence and ask that it be marked Plaintiff's Exhibit KK.

Mr. Lewers—We make the same objection as we did to the last exhibit.

The copy of letter last referred to and offered in evidence is marked "Plaintiff's Exhibit KK—L. L."

Mr. Mills—I will read this exhibit into the record.

COPY

"Dictated

September 10, 1904.

Mr. C. H. Markham,
General Manager, Southern Pacific Company,
San Francisco, Cal.

Dear Sir:

I have your letter of September 5th in regard to the lease Southern Pacific Railroad Company to the Kern Trading and Oil Company.

I have been over this matter with some thoroughness, and I beg to report that this instrument is not in condition for execution.

I wish to say, furthermore, that this department was not consulted in the making of this lease, or the mistakes made could have been avoided. I refer to the inclusion of lands not in the ownership of the Southern Pacific Railroad Company and entirely outside of its granted and indemnity limits, and never in its ownership so far as this department is advised. Other [791] lands, presumably oil lands, have been omitted.

What appears to be a mistake is the inclusion in this lease of the whole townsite of McKittrick.

I do not know on what ground such inclusion is made, but if it is intended to be included the description must be of the townsite and not of the government sub-division which has been duly platted.

There are several provisions of the lease itself which I think should be modified.

As it stands the lease provides for the payment of a royalty of one tenth of the gross product or 'one-tenth part of the gross amount of moneys received from the sale of minerals, substances and products.'

The obvious construction of this clause is a permission to some one, not specified, to sell the Company's royalty without limitation as to who may do so or the price to be received, etc.

That clause giving permission to the lessee to use our oil or dry asphaltum for fuel, etc., without payment of royalty thereon, is in conflict with that provision which gives to the Company one-tenth of the gross product.

In my opinion, the one-tenth royalty being a small royalty, at the present time at least, should not be subject to any deduction, and especiallly to a deduction of this kind which is indefinite.

That clause of the lease which provides for the payment of taxes, upon improvements only, is not, in my opinion, fair to the railroad company.

By reason of the improvements the assessment on the land is largely increased. The Company gets only one-tenth of the product and pays a large part of it in taxes upon an exceedingly high valuation. [792]

Taxation upon improvements amounts to but little. The improvements are not of an expensive character and are subject to deterioration from the time they are made.

In addition to this there is a very urgent reason for delaying the execution of these papers.

We have selected a large body of lands interspersed with the lands sought to be conveyed by this lease, and which we have represented as non-mineral in character.

Should the existence of this lease become known it would go a long way toward establishing the mineral character of the lands referred to, and which are still unpatented.

We could not successfully resist a mineral filing after we have practically established the mineral character of the land.

I would suggest delay at least until this matter of patent can be adjusted.

I call your attention to the fact that this lease conveys oil lands and also assigns the existing oil leases.

That being the case the management and control of oil matters will pass entirely from the Land Department.

It seems a little singular that the Company should assign oil leases which provide for the payment of royalties running from one-fifth to one-eighth, and now being paid to the Company at that rate, and receive therefrom a decreased revenue without consideration, so far as disclosed by these papers.

If you desire a return of the file it will be sent to you immediately.

As I am about to leave for Portland, to be gone for some time, I would suggest that this matter be kept in abeyance until such time as I can run over the lands carefully and be sure that the mistakes referred to have been corrected. [793]

Yours very truly,

CHARLES W. EBERLEIN,

Acting Land Agent.

JRH

Compared By: H. K.
L
A"

Q. The initials "J. R. H.", Mr. Eberlein, refer to the stenographer you have mentioned?

A. Yes sir.

Q. And "H. K." and "L. A." are the same parties who compared all these papers?

A. Yes sir.

Q. I think at this time I may ask you this question: You say in this letter, as a reason for delaying the execution of the lease referred to, "We have selected a large body of lands interspersed with the lands sought to be conveyed by this lease and which we have represented as non-mineral in character." What lands did you refer to when you said that in this letter? Did you refer to lands east of McKittrick, in Township 30-23?

A. I will have to refer to those papers there before I can say.

Q. This is what purports to be a plat.

A. Generally the lands I referred to were those contained in the list that I had made in—selection list, in 1903, in August or September, 1903. Yes; those are the lands.

Q. What township and range?

A. In Township 30 South, Range 23 East, Mount Diablo.

Q. And what sections, please?

A. All of 15, part of 17, part of 19, all of 21, all of 23, all of 25, all of 27, all of 29, all of 33, all of 35.

Q. In Township 30 South, Range 23 East? [794]

A. 23 East.

Q. I will read this extract from your letter: "Should the existence of this lease become known, it would go a long way toward establishing the mineral character of the lands referred to and which are still unpatented." Did you by that refer to the lands that you have just described?

A. Yes sir; I think I did.

Q. I show you this paper and ask you what it is.

A. Letter of C. H. Markham to me, dated September 14, 1904. That is a copy of his letter which is now destroyed.

Q. Was the original of that letter destroyed in the conflagration?

A. The same time that all the rest of these letters were.

Q. And the copy was made at the time it was in a bad state of carbonization?

A. Yes sir.

Q. This is, as far as you know, a correct and compared copy?

A. I believe it is.

Mr. Mills—We offer this letter in evidence and ask that it be marked "Plaintiff's Exhibit LL."

The copy of letter last referred to and offered in evidence is marked "Plaintiff's Exhibit LL.—L. L."

Q. Who was Mr. C. H. Markham? The same Mr. Markham referred to?

A. The same man; vice-president and general manager of the Southern Pacific Company.

Q. The Kentucky corporation?

A. Yes sir. [795]

Mr. Mills—I will read this into the record:

"COPY—from Copy.

SOUTHERN PACIFIC COMPANY

San Francisco, Cal., Sept. 14, 1904.

Mr. C. W. Eberlein,
Acting Land Agent,
San Francisco.

Dear Sir:

Referring to your letter of Sept. 10 relative to status of our oil leases: I see no objection to going ahead with the original program of assigning to the Kern Trading & Oil Co. all oil leases now outstanding but I shall want you to continue your connection with the leases until such time as questions now under consideration shall have been disposed of.

I quite agree with you that as a condition precedent to the continuance of at least a majority of the defaulted leases, we should require that all undeveloped territory be surrendered to the Company, leaving only the tract actually being developed subject to the terms of the lease. As a further consideration, I believe we should require that the product be shipped over the Southern Pacific Co's lines. I have discussed this matter with Mr. Herrin, and while he is of the opinion that under the contracts the lessees are in default, and could be gotten rid of, he agrees with us, that as a matter of policy it ought not to be done. I think, therefore, if you will go ahead with the matter upon the general lines laid

down in the foregoing, it will be very much better than to attempt to take arbitrary action, more especially in cases where parties are able to develop if we force them into that position.

Yours truly, (Signed) C. H. Markham.

CHM FM

Compared By: H. K.—L

A." [796]

Q. I show you this paper, Mr. Eberlein, and will ask you what it is?

A. That is a copy of Mr. Markham's letter to me of September 21, 1904.

Q. What became of the original of this letter?

A. That was destroyed in the same way the rest of the file was.

Q. Was this compared and copied under your direction and supervision?

A. Yes sir.

Q. And is a correct and compared copy?

A. I believe so.

Mr. Mills—We offer this in evidence and ask that it be marked "Plaintiff's Exhibit MM."

Mr. Lewers—We make the same general objection.

The copy of letter last referred to and offered in evidence is marked "Plaintiff's Exhibit MM—L. L."

Mr. Mills—I will read this:

"COPY

SOUTHERN PACIFIC COMPANY

San Francisco, Cal., September 21, 1904.

Mr. C. W. Eberlein,
Acting Land Agent,
San Francisco, Cal.

Dear Sir:

Referring to your letter of September 10th on the subject of proposed lease from the Southern Pacific Railroad Company to the Kern Trading & Oil Company, would ask that you [797] kindly check this matter at an early date as possible and let me know promptly from your standpoint whether there is anything in the lease that is really objectionable, consulting with Mr. Dumble and the Law Department in order that the lease may be properly drawn.

Yours truly,

(SIGNED) C. H. Markham,

GLK BCE G. L. K.
W. F. H.
E. T. D.
Compared By: H. K.
L
A."

Q. You are acquainted with the custom, in the matter of correspondence in your department and in the Southern Pacific Railroad Company, generally, are you not?

A. I believe so.

Q. Will you tell me what the initials "W. F. H." and "E. T. D." mean?

A. As I understand it, that means that a carbon copy of that letter was sent to both those gentlemen —William F. Herrin and E. T. Dumble.

Q. Who was Mr. W. F. Herrin at that time?

A. Chief counsel of the Southern Pacific Company.

Q. And Mr. E. T. Dumble is the Mr. Dumble, the geologist?

A. That is the same Dumble we are talking about here, consulting geologist.

Q. I show you this paper. Will you please state what that is?

A. That is a letter from me; that is a copy of the carbon copy of my letter to C. H. Markham, dated September 21, 1904.

Q. Was this copy made in the same way that these other [798] copies were made?

A. Exactly the same, and for the same reason.

Q. And was the copy from which this was taken in the file that you have referred to which was burned?

A. Yes sir. It was destroyed by reason of its decrepit condition after it came out of the fire.

Mr. Mills—I offer this letter in evidence and ask that it be marked "Plaintiff's Exhibit NN."

Mr. Lewers—Same general objection.

The copy of letter last referred to and offered in evidence is marked "Plaintiff's Exhibit NN—L. L."

Mr. Mills—I will read into the record this exhibit:

"COPY

Dictated.

Portland, Oregon, September 21, 1904.

Mr. C. H. Markham,
General Manager, Southern Company,
San Francisco, Cal.

Dear Sir:

Your letter of September 14th regarding the Kern Trading and Oil Company, as to the policy to be pursued by us in regard to existing oil leases to be assigned to that corporation, has been forwarded to me.

I think that the policy outlined in your letter is by all odds the best, and I am very glad indeed to be able to offer some kind of a compromise to our lessees.

It has always seemed to me that the policy heretofore insisted upon was unnecessarily harsh and could do the Company no good. I have had no option, however, other than to pursue it. [799]

I will take this matter up immediately upon my return and I think we can make such a settlement as will give satisfaction all along the line.

I shall have a new oil lease to submit to you, one feature of which will be that the lessees will be restricted to just so much land as they can, and will bind themselves to develop.

The effect of this will be to entirely relieve us from such a condition of affairs as now exists.

I note what you say in regard to the continuance of my connection until all questions under consideration have been disposed of.

Please understand that nothing that I have said heretofore C. H. M.—2— should be construed as a desire on my part to escape any work or responsibility in regard to these matters.

I don't know anything about the Kern Trading and Oily Company, and have been left in the dark entirely as to the object and purpose of it.

I did not wish to blunder along and bring myself into collision with Mr. Dumble in regard to matters as to which it would be his right and not mine to decide.

I wish to remind you, once more, that the lease to the Kern Trading and Oil Company, submitted to me, should not go through in its present shape, and that the schedule of lands referred to should be revised and corrected.

However, this is a matter of detail as to which I can satisfy you on my return.

Yours very truly,

CHARLES W. EBERLEIN,
Acting Land Agent.

JRH
Compared By: H. K.
L
A" [800]

Q. I show you this paper, and ask you what it is.

A. It is a letter from myself to Mr. E. T. Dumble, dated October 7, 1904.

Q. Is this Mr. Dumble the same Mr. Dumble referred to in the previous exhibit?

A. Yes sir.

Q. And state how this copy was made.

A. That is a copy of the carbon copy of my letter to Mr. Dumble.

Q. Taken from this file that you refer to?

A. Yes sir; taken from a badly damaged file.

Q. And what became of the copy from which this was made?

A. Oh, it is gone long ago. There was nothing but dust and ashes left of it when they got through.

Mr. Mills—We offer this in evidence and ask that it be marked Plaintiff's Exhibit OO.

Mr. Lewers—Same general objection.

The copy of letter last referred to and offered in evidence is marked "Plaintiff's Exhibit OO—L. L."

Mr. Mills—I will read this exhibit into the record:

"COPY—From File No. 47

Oct. 7th, 1904.

Mr. E. T. Dumble,
Consulting Geologist,
Bldg.

Dear Sir:

Referring to your note of Oct. 5th., I beg to say I will be glad to take matters up with you as suggested any time tomorrow that will be convenient to you, I would suggest that you [801] might find it more convenient to come to room 71 where we can have a room to ourselves and not be disturbed, if

however, you prefer I should come to your room, please advise me.

Yours truly,

CHARLES W. EBERLEIN,
Acting Land Agent.

'Donaldson'
Compared By: H. K.
L
A"

Q. What does that refer to, that "Donaldson"?

A. I don't know. I can't imagine what that was. Probably the best they could do, from the carbonized condition of the file. They got the word "Donaldson" there, but what it means I don't know.

Q. I show you this paper, and ask you what it is.

A. That is a copy of the carbon copy of my letter to Mr. E. T. Dumble, of October 8th, 1904.

Q. Was the paper from which that was copied destroyed in the fire?

A. Yes sir; that is my understanding.

Q. And in that file, the same file?

A. The same file.

Mr. Mills—We offer this in evidence and ask that it be marked Plaintiff's Exhibit PP.

Mr. Lewers—The same general objection.

The copy of letter last referred to and offered in evidence is marked "Plaintiff's Exhibit PP—L. L."

Mr. Mills—I will read government's Exhibit PP into the record: [802]

"COPY

Dictated
S.

October 8, 1904.

Mr. E. T. Dumble,
Consulting Geologist,
Southern Pacific Railroad Company,
Building.

Dear Sir:

Herewith I hand you plats showing the status of lands within the Southern Pacific Railroad Company's grant in

Township 19 South, Ranges 14 and 15 East M. D. M.

Township 20 South—Ranges 14 and 15 East M. D. M.

Township 21 South—Ranges 14 and 15 East M. D. M. Coalinga district, and

Township 30 South—Ranges 21, 22 and 23 East M. D. M.

Township 31 South—Ranges 22, 23 and 24 East, M. D. M.

Township 32 South—Ranges 23 and 24 East, M. D. M. in the McKittrick, Midway and Sunset districts.

Kindly acknowledge receipt.

Yours very truly,
CHARLES W. EBERLEIN,
S
Acting Land Agent.

Inc.
RSG.
Compared By: H. K.
L. A."

Q. Do you know what the initial "S" under your name is?

A. Stone.

Q. Does that refer to Mr. George A. Stone, who testified this morning?

A. Yes sir. [803]

Q. And the same at the top of the page?

A. Yes.

Q. I hand you another paper, Mr. Eberlein, and I will ask you what that is.

A. Copy of C. H. Markham's letter to me, dated October 17, 1904. The original is destroyed. Belonged to the same file as the rest of these letters.

Q. And what you have said about the destruction of the originals applies to this as well as to the other papers contained in that file?

A. Everything contained in that file.

Mr. Mills—We offer this in evidence and ask that it be marked Plaintiff's Exhibit QQ.

Mr. Lewers—Same general objection.

The copy of letter last referred to and offered in evidence is marked "Plaintiff's Exhibit QQ—L. L."

Mr. Mills—I will read government's Exhibit QQ:

"COPY

Southern Pacific Company

San Francisco, Cal., October 17, 1904.

Mr. C. W. Eberlein,
Acting Land Agent,
San Francisco, Cal.

Dear Sir:

September 21st I wrote you on the subject of proposed lease from the Southern Pacific Company to the Kern Trading & Oil Company, asking that you kindly check this matter at an early date and let me know from your standpoint whether there is anything in the lease that is really objectionable. Will [804] you kindly advise status of matter at present time.

Yours truly,

(Signed) C. H. Markham.

BCE GLK

Compared By: H.K.

L. A."

Q. I notice that this letter refers to a proposed lease from the Southern Pacific Company to the Kern Trading and Oil Company, and will ask you whether that is the same lease which has been referred to as proposed between the Southern Pacific Railroad Company and the Kern Trading and Oil Company.

A. Yes sir; it is the same thing that is referred to in all those letters.

Q. Now, I will show you this paper, and ask you what that is.

A. That is a copy of the carbon copy of my letter to Markham of October 18, 1904.

Q. And that copy was made under your direction and supervision, the same as the other papers—

A. Yes sir.

Q. —which have been introduced as coming from that file?

A. That destroyed file.

Q. And the paper from which this was copied, you say, has been destroyed in that file by the fire?

A. Yes sir.

Mr. Mills—We offer this in evidence and ask that it be marked Plaintiff's Exhibit RR.

Mr. Lewers—Same general objection.

The copy of letter last referred to and offered in evidence is marked "Plaintiff's Exhibit RR—L.L."

[805]

Mr. Mills—I will read government's Exhibit RR into the record:

"COPY

Dictated. October 18, 1904.

Mr. C. H. Markham,
Vice-President & General Manager,
Southern Pacific Company,
San Francisco, Cal.

Dear Sir:

I am in receipt of your letter of the 17th instant, calling attention to the matter of the proposed lease from the Southern Pacific Railroad Company to the Kern Trading & Oil Company.

Your letter has anticipated my letter to you on this

subject, Mr. Dumble and I have had this matter under consideration in the past few days.

The consideration of several matters in this connection is not yet complete, for the reason that Mr. Dumble is looking over his data with the intention, as I understand it, of furnishing a new list of lands to be conveyed.

The lease as now drawn conveys some lands outside of the grant, and omits others that should be included.

This is the most important matter connected with this lease, and I think the whole transaction can be closed as soon as Mr. Dumble reports.

Yours very truly,

CHARLES W. EBERLEIN

Acting Land Agent

ESR

Compared By: H. K.

L. A." [806]

Q. Who was E.S.R., do you remember, Mr. Eberlein?

A. I don't know. Some of the numerous peripatetic stenographers we had right after the fire, I suppose. I don't know.

Q. I show you this paper, and I will ask you what it is.

A. That is a copy of Mr. Dumble's letter—This is a copy of a carbon copy of a letter from E. T. Dumble to Mr. W. H. Bancroft, dated December 7, 1904.

Q. And was this made in the same way and under your direction and supervision?

A. Yes sir.

Q. From a part of the file that you have referred to?

A. Yes sir.

Q. And was the paper from which this was copied destroyed?

A. Yes sir.

Q. These initials C.C. and C.W.E.—what does that mean?

A. It means carbon copy to C. W. Eberlein.

Mr. Mills—We will offer this in evidence and ask that it be marked Plaintiff's Exhibit SS.

Mr. Lewers—The same general objection.

The copy of letter last referred to and offered in evidence is marked "Plaintiff's Exhibit SS—L.L."

Mr. Mills—I will read government's Exhibit SS into the record: [807]

"COPY

Southern Pacific Company

San Francisco, Cal., Dec. 7, 1904.

Mr. W. H. Bancroft,

Acting Genl. Mgr., City.

Dear Sir:

In connection with our correspondence regarding the transfer of property to the Kern Trading & Oil Company, I have had a conversation with Mr. Eberlein and it seems for reasons of policy regarding certain unpatented lands that it will be best not to execute the lease of lands between the S. P. R. R. Co. and the K. T. & O. Co. at present.

I would, therefore, suggest that the papers covering the transfer of property from the S. P. Co. to

K. T. & O. Co. be executed and that the lease of lands in the McKittrick and Coalinga districts from the S. P. R. R. Co. to the K. T. & O. Co., be held up for the present.

Yours very truly,

D-R (Signed) E. T. DUMBLE.

CC CWE

Compared By: H. K.

L. A."

Q. Who was Mr. Bancroft?

A. He was the vice-president and general manager of the Oregon Short Line, headquarters at Salt Lake City. At the time that letter was written he was temporarily the acting general manager of the Southern Pacific Company. Mr. C. H. Markham resigned, I think, in October—I believe it was October; and pending the appointment of a successor Mr. Bancroft occupied the—warmed the seat of general manager at headquarters. [808]

Q. I understand you to say that the initials "C. C." "C. W. E." means that a carbon copy of this letter to Mr. Bancroft was sent to you?

A. Yes sir.

Q. And was preserved in that same file.

A. Yes sir.

Q. I show you this paper, Mr. Eberlein, and ask you what it is.

A. That is the original carbon copy of a personal letter from myself to W. D. Cornish, dated September 3, 1904.

Q. Who was Mr. W. D. Cornish at that time?

A. He held the title of vice-president of the Southern Pacific Company, and he was my superior officers in land matters.

Q. This I understand to be your own carbon copy of the original letter which you transmitted to Mr. W. D. Cornish on the date that it bears?

A. Yes sir.

Q. You were personally acquainted with Mr. Cornish, were you not?

A. Yes sir, very well acquainted with him; for a great many years.

Q. Now, after the transmission of this letter to Mr. Cornish, did you ever have any talk with Mr. Cornish relative to any disposition which he made of all the letters sent to him by you?

Mr. Lewers—To which we object, on the ground that that is calling for hearsay testimony.

A. Yes; I talked with him.

Q. By Mr. Mills—And where was that talk, Mr. Eberlein?

A. On a private car out of Ogden, in the fall of 1907.

Q. Will you state what, if anything, he said about the destruction of any letters which he had received from you? [809]

Mr. Lewers—We renew the same objection; on the ground that no foundation has been laid and it is calling for purely hearsay testimony.

A. He said that inasmuch as these letters, reports from me, that he held having come from me in all those years, inasmuch as the papers of the company

in the Land Office were destroyed, why, he had destroyed those.

Q. By Mr. Mills—Did he say anything about having destroyed all of the papers which he received from you?

A. That is what I understood him to say.

Q. Had this letter, prior to the time that he made that statement to you, been transmitted to him?

A. Yes. Oh, yes.

Q. Will you please examine that carefully and state whether it is a correct copy of the letter which you sent to Mr. Cornish?

A. Yes; that is the exact copy.

Mr. Mills—We offer this letter in evidence, and ask that it be marked Plaintiff's Exhibit TT.

Mr. Lewers—Same general objection.

The copy of letter last referred to and offered in evidence is marked "Plaintiff's Exhibit TT—L.L."

Mr. Mills—I will read this into the record, it being a letter consisting of four pages:

"Dictated. *Personal* September 3, 1904.

Hon. W. D. Cornish,

Vice President, Southern Pacific Company,

120 Broadway, New York. [810]

Dear Sir:—

As you are aware, the Kern Trading and Oil Company has been organized.

I am totally in the dark as to the objects, rights, etc., of this corporation. I have asked for information several times, but it has never been furnished me.

I was told in a general way that this company was organized for the purpose of taking over the oil lands of the Southern Pacific Railroad Company and operating the same.

A lease has been made for the term of ten years from the first of January, 1904, with a renewable term of the same period.

The lease is made by the Southern Pacific Railroad Company to the Kern Trading and Oil Company, and covers all the lands now in the ownership of the Company that either are or are supposed to be oil bearing.

The consideration for this lease is a royalty of one-tenth of the gross product, or, "one-tenth of the gross amount of moneys received from the sale of said minerals, substances and products".

This lease was concocted without any reference to me, and it has now been sent over for me to execute on behalf of the Southern Pacific Railroad Company.

W.D.C.—2—

I don't know that there is any particular objection to it, as perhaps one-tenth of the product may be fair.

The Company now receives one-fifth in some cases and in other cases one-eighth, and this is at a still lower rate. However, I do not object to that.

I am, however, somewhat slow about signing this document and tying the railroad company up for a series of years.

Of course I know that it is for the benefit of the [811] Southern Pacific Company, but there is one feature which seems to me to be important. Inasmuch as the lease is made by the Land Department,

and the head of that department is taking the responsibility therefor, it does not seem proper that the Southern Pacific Railroad Company shall have nothing to say in regard to the disposition of its royalty oil.

The lease provides that the oil may be sold and the one-tenth of the moneys received be turned over to the Land Department.

It leaves the matter entirely in the management of the Southern Pacific Company, or the Kern Trading and Oil Company, I don't know which.

In all events it is possible for some man not connected with the Land Department, nor with the Southern Pacific *Railroad Company,* to make a price on royalty oil belonging to the railroad company and sell it. There is no provision in the lease that the price to be received, in case the oil is sold, shall be the market price, or any other price.

You can see that there is a wide open door for the disposition of the Land Department property at ruinous prices, thus

W.D.C.—3—

depriving the Land Department and the bond holders of a fair return for their property.

I feel that it is incumbent upon me to look somewhat into this instrument, and into the future. I know that it is hardly probable but still it is possible that the control of this oil company may by some contingency pass out of the present hands, and if it should fall into hostile control the railroad company would get very much the worst of it.

As I have already stated, this matter has been hatched for my signature without submission to me, or without consultation.

I know the answer, in case the question was raised, would [812] be that it is all a family matter and that I need not concern myself about it.

However, I take it that you are somewhat interested in this matter, and I want your advice as to what you think would better be done to protect us against future complications.

Do you think it would be wise and expedient and would it serve the purpose of protection if I were to demand action of the Board of Directors of the Southern Pacific Railroad Company ratifying and confirming the lease as it stands, and directing the Land Agent to sign the lease.

It seems to me that some such action is not only desirable but necessary, inasmuch as it conveys control of the most valuable lands in the grant for a long term of years.

This lease has been lying here for sometime during my absence and I may be called upon for it at any time. I would therefore esteem it a great favor if you would give me any suggestions you may have by wire.

I can stave off the delivery of this document for some time yet, I think, for the reason that if the knowledge of this

W.D.C.—4—

lease becomes public property it will probably cause us a great deal of trouble in the United States Land Office, and may result in the loss of a large body of

adjacent lands which may hereafter turn out to be mineral and oil bearing.

I found on taking charge of this office that a large body of our lands, especially Indemnity lands in the Coalinga, McKittrick and Sunset fields, had been withdrawn by the United States from entry, pending examination as to their mineral character.

I have worked very hard and very steadily to get the United States to complete its report and dispose of this matter. I have just succeeded in getting the Special Agent in charge to [**813**] make a report releasing our land from interdictment.

If it becomes known that we have executed a lease of lands interspersed with those already under selection by us, and that the lease is for oil purposes, it seems to me that it will immediately encourage oil speculators to file upon the lands so selected and that the government will have good ground for refusing patent, inasmuch as we practically fix the mineral status of the land by this lease.

Yours very truly,

CHARLES W. EBERLEIN,

Acting Land Agent.

JRH."

Q. Now, you have referred in this letter dated September 3, 1904, to a large body of adjacent lands which may hereafter turn out to be mineral and oil-bearing. Are those the lands to which you referred in the previous question that I asked you where you referred to a map, in 30-23?

A. Why, no. Those lands were—What is the date of this letter?

Q. This is September 3, 1904.

A. Those lands were all selected and the selection list approved. No; there were other lands in the same neighborhood.

Q. There were other adjacent lands which you referred to, you say?

A. Yes sir; unpatented, unselected lands in that same township—same range, rather.

Whereupon the further taking of testimony herein was adjourned until Saturday, May 18th, 1912, at 10 o'clock A. M. [814]

On Saturday, May 18, 1912, at 10 o'clock A. M., the further taking of testimony herein was resumed.

CHARLES W. EBERLEIN,

recalled, DIRECT EXAMINATION resumed:

By Mr. Mills:

Q. Mr. Eberlein, I asked you yesterday in connection with government's Exhibit KK regarding this language in that letter: "We have selected a large body of lands interspersed with the lands sought to be conveyed by this lease, and which we have represented as non-mineral in character," and you have stated that that referred to the lands marked in brown on this map, or the south half of Township 30 South, Range 24 East. Now, I also asked you yesterday respecting government's Exhibit TT, which was a letter addressed to Mr. W. D. Cornish, vice-president of the Southern Pacific Company, dated September 3, 1904, respecting the follow-

ing language in this exhibit: "I can stave off the delivery of this document for some time yet, I think, for the reason that if the knowledge of this lease becomes public property it will probably cause us a great deal of trouble in the United States Land Office, and may result in the loss of a large body of adjacent lands which may hereafter turn out to be mineral and oil-bearing." What did you refer to in that letter when you spoke of the "large body of adjacent lands which may hereafter turn out to be mineral and oil-bearing"?

A. I undoubtedly referred to lands in 30 South, 23 East.

Q. Mount Diablo Meridian?

A. Yes, and those south of it.

Q. And the lands south of those lands, in 31-23?

A. Yes sir.

Q. And 31-24, which were unsurveyed?

A. Yes; they were unsurveyed at that time. [815]

Q. And the lands which you have designated as in Township 30 South, Range 23 East, were lands which had then been selected by the Southern Pacific Railroad Company, but which had not yet been patented? Is that correct?

A. That is correct.

Q. Mr. Eberlein, referring to the exhibits which constitute certain correspondence between the officials of the Southern Pacific Railroad Company defendant and Southern Pacific Company defendant, and which yesterday you have stated were kept in a file, where was that file kept before the fire?

A. This particular file, do you refer to?

Q. Yes. The file referred to containing these papers.

A. That was not kept in the files at all. Part of the time it was kept in the safe-deposit vaults; at other times when it was needed it was brought into the office and kept in a separate place in the vault; in the safe, I think.

Q. What was the purpose of keeping that file separate from other correspondence?

A. Because it referred to that attempted lease.

Q. At the time of the fire where were the papers?

A. These papers at that time were in the safe in the vault of the company.

Q. And is that where they were discovered after the fire?

A. After the fire they were taken out of there.

Q. Now, in what respect was this attempted lease an excuse to separate these papers from the other papers in the general course of business kept in the vault of the Land Department?

A. I did not propose that it should be common property at all. There was no lease, because I had refused to sign it. I had given instructions to the assistants there—the chief clerks—that they were not to recognize that lease in any way. [816]

Q. What was the purpose of keeping the files separate from the rest of the correspondence?

A. Because they referred to that lease. They referred to that lease and they referred to the action taken by the land agent in not recognizing that lease.

Q. And for that reason did you think it was necessary to keep the papers separate?

A. I certainly did. They should not be scattered all through the files, with references to that lease as a lease, and the first thing you know somebody would slide in a voucher to be approved under that lease, and that would be a recognition of it or would be supposed to be—or held to be.

Q. I show you this paper, Mr. Eberlein. Will you state what that is?

A. That is a map of part of the indemnity limits of the Southern Pacific grant lying in Townships 30, 31 and 32 South, Ranges 22, 23 and 24 East, Mount Diablo Meridian.

Q. Please state what these lands marked in red were?

A. Those are, as appears from that legend, a part of the lands in the lease that was intended to be made from the Southern Pacific Railroad Company to the Kern Trading and Oil Company.

Q. Does the legend correctly designate the character of the lands on the map?

A. The character, do you mean, as to patent and survey?

Q. Yes.

A. I believe it does. It was made up from the records at that time.

Q. I notice the initials "G. A. S." and "J. R. D."

A. This was made up by Mr. Stone and checked by him and J. R. Daly who was then a clerk.

Q. Will you tell me whose handwriting those initials are? [817]

A. That is Stone's handwriting, "G. A. S.", and that is Daly's, "J. R. D."

Q. Who prepared this map, to the best of your recollection?

A. Who did the actual manual work—I can't tell you that. I was not in the department much of the time. It was prepared by Mr. Stone.

Mr. Mills—We offer this map in evidence.

Mr. Lewers—Objected to on the ground that no sufficient foundation is laid; it is not properly identified by any person who made it, and it is purely hearsay.

Mr. Mills—I believe the witness stated he did most of the manual work on the map.

A. That I did?

Q. Yes.

A. No; I am not an artist; I didn't do it.

Q. It doesn't look as though an artist did that coloring.

A. No; it looks as if a house-painter did.

Q. Do you know whether that was made under your direction?

A. I don't remember. It probably was. It was probably made under Mr. Stone—I issued the order for it, I suppose, and told him I wanted to see it platted out.

Mr. Lewers—I move to strike that out as a supposition of the witness.

Q. By Mr. Mills—What was the date?

A. September 16, 1904.

Q. Where did you get this map after the fire?

A. I got it with the lease. It was right with it, a copy of it.

The map last referred to and offered in evidence is marked "Plaintiff's Exhibit UU—L. L." [818]

Q. Mr. Eberlein, you have stated in the first part of your examination that as part of the duties and functions of George A. Stone, he was empowered to sign leases for the railroad company of certain lands?

A. Yes sir.

Q. Do you know whether any lease was ever executed by the Southern Pacific Railroad Company and one Brewton A. Hayne and Sally P. Hayne, his wife, and George D. Roberts and Julia A. Roberts, his wife, and the Zier Oil Company, during the time that you were acting land agent for the defendant railroad company?

A. The Hayne lease was in existence when I came there, as I recollect it. There was a great deal of negotiation with Hayne. He was in default, and I think some extensions or some modifying instrument was executed while I was there.

Q. I call your attention to this paper which I have in my hand which purports to be a lease between the Southern Pacific Railroad Company and the Haynes, Roberts and Zier Oil Company, dated some time in 1906. Will you please look at the signatures and state whether that is the lease you referred to?

A. This, I believe—I have not examined it thoroughly—I believe this is a sub-lease or some modifica-

tion of the original lease. The original lease to Hayne, I can't say the number of it—there it is—G-45, and bore date 19th of January, 1901, and then he was permitted, as I understand this, to—

Mr. Lewers—I object to any interpretation of the document. The document is the best evidence.

A. Well, we will just say that this is a sub-lease.

Mr. Mills—We offer this instrument which is a certified copy of an instrument on file in the county recorder's office of Fresno county, California, purporting to show that the Southern Pacific Railroad Company by Charles W. Eberlein, its [819] acting land agent, by George A. Stone, assistant acting land agent, leased certain property in Fresno county to the parties named in the lease.

Mr. Lewers—May I inquire the office of this? Do you want to bring the county recorder of Kern county into this conspiracy?

Mr. Mills—Your attempted wit is getting exceedingly cumbersome, Mr. Lewers.

Mr. Lewers—Then you have no purpose in offering it?

Mr. Mills—No such purpose as that.

Mr. Lewers—We object to the document on the ground that it is subsequent to the time of the patent involved in this case, and on the further ground that it appears to concern property a long distance or a great distance from the land in controversy in this case, and on the general ground that it is irrelevant to any issue in this case.

Mr. Mills—I will state here for the benefit of coun-

sel that the purpose of introducing this is to show that Mr. George A. Stone was empowered to sign leases.

The certified copy of lease last referred to and offered in evidence is marked "Plaintiff's Exhibit VV—L. L."

Mr. Mills—We offer in evidence a certified copy of the articles of incorporation and consolidation of the Southern Pacific Railroad Company.

Mr. Lewers—No objection to that.

The certified copy of articles of incorporation and consolidation of the Southern Pacific Railroad Company last referred to and offered in evidence is marked "Plaintiff's Exhibit WW—L. L." [820]

Q. By Mr. Mills—Mr. Eberlein, the lands in this suit are known as a portion of Section 15, 17, all of 19, 21, 23, 25, 27, 29, 33 and 35 of Township 30 South, Range 23 East. Do you remember the circumstances connected with the selection of those lands in the indemnity limits of the Main Line Grant?

A. Yes sir.

Q. Will you please state what those circumstances were?

A. When I took charge of the affairs of the land department of the Southern Pacific, I found there was a large amount of base unused, which I instructed my assistants to prepare a list and make indemnity selection for.

Q. What year was that?

A. 1903, I think in the month of August; and the list was made up by Mr. Stone.

Q. Permit to interrupt you long enough to ask you how long you had been there in the capacity of land agent at that time?

A. Less than a month, I think. It was in August —yes, it was in August, 1903, that that list was made up.

Q. Did you send anybody out over the lands to examine them and ascertain their character at that time?

A. No sir; it was not necessary.

Q. On whose judgment did you rely as to the character of the land?

A. On Mr. Stone's.

Q. George A. Stone?

A. George A. Stone had been for years the field examiner of the Southern Pacific Railroad Land Department. He was thoroughly familiar with the land, so he told me.

Q. He made no special trip on that occasion?

A. Not on that occasion.

Q. To ascertain the mineral or agricultural character of [821] the land?

A. No.

Q. Did you know anything about the lands yourself?

A. Nothing.

Q. Did you have any personal knowledge whatever?

A. Absolutely none.

Q. Had you ever seen the land?

A. Never.

Q. That, you say, was in 1903. In 1904 you wrote a letter to Mr. C. H. Markham which has been introduced here as government's Exhibit KK, in which you used the following language: "In addition to this there is a very urgent reason for delaying the execution of these papers." By those papers you meant the attempted lease that you have referred to?

A. Yes.

Q. "We have selected a large body of lands interspersed with the lands sought to be conveyed by this lease, and which we have represented as non-mineral in character." By that did you refer to the lands in suit?

A. Yes sir.

Q. "Should the existence of this lease become known it would go a long way toward establishing the mineral character of the lands referred to, and which are still unpatented." What lands did you refer to?

A. The lands in 30 South, 23 East.

Q. "We could not successfully resist a mineral filing after we have practically established the mineral character of the land. I would suggest delay at least until this matter of patent can be adjusted." You have spoken of E. T. Dumble. On the date of this letter, Mr. Eberlein, which is September 10, 1904, had you obtained any knowledge as to Mr. Dumble's activities with reference to the unpatented lands inuring to [822] the Southern Pacific Railroad Company under its grant of July 27, 1866?

A. I became aware when that lease was sprung

on me that he had been—that he made examinations, yes. That was my first knowledge of it.

Q. Was that the first time you suspected that these lands might turn out to be mineral in character or might be mineral in character?

A. I did not suspect them of being mineral in character at the time I made that non-mineral affidavit.

Q. I am talking about the time when you wrote Mr. Markham and also when you wrote Mr. Cornish under date September 3, 1904, in which you used this language, in the first letter: "We have selected a large body of lands interspersed with the lands sought to be conveyed by this lease, and which we have represented as non-mineral in character" and later "Should the existence of this lease become known it would go a long way toward establishing the mineral character of the lands referred to, and which are still unpatented." Did that lease raise anything in your mind?

A. It certainly did.

Q. What was it?

A. It put me on inquiry as to why those lands were attempted to be conveyed by that lease. They were attempting to convey lands supposedly non-mineral to an oil development company.

Q. And by that company you refer to what?

A. The Kern Trading and Oil Company. Now, they may have been sought to be transferred for some other purpose than oil, but the inference was pretty

strong, and I felt and I knew certainly that it would work against the company.

Q. At that time had you learned that Mr. Dumble was acting without your knowledge and not in conjunction with your depart-[823]-ment as to the examination of these lands?

A. That is true.

Q. Did you ever make any protest to any of the officials of either company, the Southern Pacific Company or the Southern Pacific Railroad Company, against the practice of Mr. Dumble and his men examining lands not yet patented to the railroad company?

A. He was acting without any conjunction or any understanding with me. I didn't know the character of the land that he examined, and I did protest and protested vigorously.

Q. To whom did you protest?

A. To my chief in New York.

Q. Who was your chief?

A. Mr. Cornish.

Q. W. D. Cornish?

A. Yes.

Q. He was vice-president of the Southern Pacific Company?

A. Yes.

Q. Was he your chief as land agent of the Southern Pacific Railroad Company?

A. Yes.

Q. How do you explain that, Mr. Eberlein?

A. I can't explain it, except that it is a fact.

Q. Was Mr. Cornish to your knowledge an officer of the Southern Pacific Railroad Company as well?

A. I do not know that fact. I suspect he was, but I have not—I can't testify as to that off-hand now.

Q. Well, you made protest to him against this activity of Mr. Dumble and his men. That letter which I have asked you about—government's Exhibit TT—was that the protest that you sent him?

A. Oh, no. I protested in conversation with him frequently.

Q. When? [824]

A. At different times from that time on; just as long as I was there. And also I had talks with Mr. Markham about it at the time this lease was attemted to be made.

Q. C. H. Markham?

A. Yes sir.

Q. The gentleman who is the addressee in government's Exhibit KK, general manager, Southern Pacific Company, dated September 10, 1904?

A. Yes sir.

Q. What talk did you have with Mr. Markham?

Mr. Lewers—We object on the ground that it is calling for hearsay testimony.

Mr. Mills—I think the record will show that it is quite pertinent, conversations between the head of the Land Department of the Southern Pacific Railroad Company and the general manager of the Southern Pacific Company.

A. I just pointed out to Mr. Markham that people acting without any kind of knowledge of what they

were doing, without any reference to the selection list of the company, without any reference to whether the lands were patented or even surveyed,—that it was charging the company with notice. It didn't charge me with notice, but it certainly would be the grounds on which to get in and protest the patents or protest the lists, and so the fact turned out to be.

Q. Did you have more than one conversation with Mr. Markham with respect to that protest?

A. Yes; I think we talked about it a number of times, my recollection is.

Q. Did you continue those protests from time to time until a later period?

A. Oh, yes; clear up to the last, I think.

Q. The letter dated September 10, 1904, addressed to Mr. Markham, [**825**] in which it appears that you made a protest, and called government's Exhibit KK, was that the first protest you made to him or was it subsequent to any conversation?

A. Oh, Mr. Markham and I had several rather heated arguments, and I objected to Mr. Markham's interference with the Land Department. I was not under his orders at all.

Q. Do you know Mr. Henry Conlin?

A. Yes.

Q. Who was Mr. Conlin?

A. Mr. Conlin was a clerk in the department from 1905, some time, and afterwards my assistant, and succeeded me as acting land agent.

Q. During the time he was your assistant did Mr. Conlin have the same powers and functions during

your absence that you would have, except where your appointment was limited to your personal acts?

A. Yes sir; he covered everything. He had to have very full authority, because I was absent in New York a very large part of the time.

Q. Were you acting land agent as late as February 22, 1908?

A. Yes sir; till June 1, 1908.

Q. I show you this paper, Mr. Eberlein, and ask you when you first—I will ask you, in the first place, if that is in your handwriting. You may read it through.

A. Yes sir; that is my letter.

Q. What is the date of that letter?

A. February 22, 1908.

Q. Do you know whether this letter was transmitted to Mr. Conlin by you?

A. I think it was. I have never seen it since it was written, but I must have sent it.

Mr. Mills—With the statement that we will call Mr. Conlin [**826**] to show what became of the letter after it left Mr. Eberlein's hands, we will offer it in evidence.

Mr. Lewers—We object on the ground that it is long subsequent to the issuance of the patent in this case and not shown to have any connection with the lands in controversy. On the further ground, that no sufficient foundation has been laid for its introduction.

Mr. Mills—I will read this into the record. "Feb. 22, 1908. Mr. Conlin—The New York Office has for-

bidden the giving out of any more printed lists of lands because of the unsatisfactory condition of our titles which must not be disclosed. The examination of our S. P. lands not yet patented by our oil experts must be stopped as information that they may obtain or give as to mineral character prior to patent will forever prevent our getting titles. Should Mr. Calvin call for any lists please take this memo. to him and explain our situation and refer him direct to New York office. Please advise him too of the pressing necessity of the return of lists sent in a year ago for entry of lands to be reserved for company purposes. Mr. Dumble and his men should not be furnished by us with any data whatever except as to *patented* lands. For reasons above given such information will be embarrassing to them and us and may make them witnesses against this company in mineral contests hereafter. (Signed) Chas. W. Eberlein, Acting Land Agent."

The letter last above referred to and offered in evidence is marked "Plaintiff's Exhibit XX—L. L."

Q. I ask you, Mr. Eberlein, where that letter was written?

A. Written in New York.

Q. What do you mean by the "New York office" used in this letter, or what did you mean? [827]

A. I meant the authority over land affairs which was vested there.

Q. And what authority was that?

A. Well, the authority of W. D. Cornish.

Q. Who at that time was vice-president of the Southern Pacific Company?

A. Yes sir.

Q. Now, did you understand and was it a fact that Mr. Cornish exercised authority over the land affairs in the Land Department of the Southern Pacific Railroad Company?

A. That was his duty—part of it.

Q. And how long and from what time to your knowledge did that exist?

A. From the summer of 1903 over these lands out here on the coast.

Q. Do you know whether or not those lands were ever shown in any balance sheet of either company as assets of either company?

A. Do you mean the value of granted lands?

Q. Yes; the lands themselves and the value of the granted lands.

Mr. Lewers—Objected to as calling for the conclusion of the witness on matters which in the very question itself it appears are best shown by the document itself, if there is such a document. And on the further ground that it is irrelevant to any issue in this case.

Q. By Mr. Mills—You may answer.

A. No.

Q. They were never carried on the balance sheet?

A. No; the value of the granted lands never appears in any balance sheet, only the collections from sales, leases, and actual collection of money. [828]

Q. Now, you refer in this letter to the fact that

the New York office has forbidden the giving out of any more printed lists of land. What were those printed lists?

A. A printed list was a complete classified list of all the lands, divided in this grant into hundred-and-sixty-acre tracts. That is, we had a printed list of all the granted lands of the company, classified by counties, into patented and unpatented selected lands, unpatented selected lands, unsurveyed lands and lands subject to contract. That is, sold lands under contract.

Q. You have stated in this letter that the New York office had forbidden "the giving out of any more printed lists of lands because of the unsatisfactory condition of our titles which must not be disclosed." By that what did you mean?

A. I meant after the fire we were completely cleaned out and had to make an entirely new set of books. We had to get our contracts for the sale of land, amounting to hundreds of thousands of dollars, that had been burned, and we had no evidence of them. We had to supply that by examinations in the Land Office, first, and in the county offices, and by every other means that we could take to supply that information; and in some cases it turned out that people took advantage of that fact, knowing that we were without any data at all regarding the lands that were sold under contract, and they altered the terms of their contracts in some cases.

Q. The sentence immediately following: "The examination of our S. P. Lands not yet patented by

our oil experts must be stopped as information that they may obtain or give as to mineral character prior to patent will forever prevent our getting titles." Was that statement a continuation by you of the accustomed protesting which you said started as soon as they offered the lease to you? [829]

A. Oh, yes; that is simply the same old thing, only we were suffering a great deal more from the activity of Mr. Dumble at that time—his interference almost every day.

Q. "Should Mr. Calvin call for any lists please take this memo to him and explain our situation." Who was Mr. Calvin?

A. Vice-president and general manager of the Southern Pacific Company.

Q. And he was calling for lists of land of the Southern Pacific Railroad Company?

A. Yes.

Q. Some lists had been furnished him prior to that time?

A. Yes sir.

Q. You say "Please advise him too of the pressing necessity of the return of lists sent him a year ago."

A. They had been furnished him for the purpose of having him note what lands should be reserved. At the time of the fire the records were completely destroyed. There were lands that were reserved for operating purposes. That is what it was sent to him for, so as to renew that data. It so happened that in a great many cases lands were reserved on our

books from sale or any disposition—lands which were needed for the extension of yards or for water or for a number of purposes, either present or prospective, for operation or traffic.

Q. I call your attention to this statement: "Mr. Dumble and his men should not be furnished by us with any data whatever except as to patented lands." The word "patented" is underscored. What did you underscore the word "patented" for?

A. That is axiomatic in this connection. Mr. Dumble should certainly have nothing to do with any lands except such as were patented. If he did, it was simply—we had no control over Dumble and didn't know what he was doing and no means of finding what he was doing. [**830**]

Q. Did Mr. Dumble ever come to you in 1903 or '04 and give you information as to the mineral character of any lands?

A. No sir; I didn't know Mr. Dumble in 1903.

Q. You have referred to this attempted lease, Mr. Eberlein, which is dated the 2nd day of August, 1904. I will ask you if that is the original attempted lease which was offered to you by Mr. Markham as you have stated?

A. Yes sir; that is the original.

Q. I notice that it is in a bad state of preservation.

A. That was baked in the fire of 1906 and happened to be in the vault at that time.

Q. Was that lease in the file that you referred to?

A. Yes; it was kept with those papers.

Q. Will you read, please, whether there are any signatures there and state whose they are if you know them?

A. Kern Trading and Oil Company by C. H. Markham, president.

Q. Do you know whether Mr. Markham signed that attempted lease?

A. Yes sir.

Q. How do you know that fact?

A. He signed it in my presence.

Q. Now, I notice the words "Approved as to form (Signed) William F. Herrin." Are you acquainted with his signature?

A. Yes sir.

Q. Is that his signature?

A. Yes.

Q. "Description of property correct (Signed) E. T. Dumble." Do you know whose signature that is?

A. That is Mr. Dumble's signature.

Mr. Mills—I suggest that when we offer this in evidence we substitute a copy of this in evidence. [831]

Mr. Lewers—Substitute a copy, but leave the original as an exhibit.

Mr. Mills—We offer that in evidence.

Mr. Lewers—We object to the introduction of the document offered in evidence, on the ground that no sufficient foundation has been laid to account for its production and its source, and that it is not relevant, as appears on the face thereof, to any of the issues

in this case, inasmuch as it does not concern any of the land involved in this litigation.

The lease last referred to and offered in evidence is marked "Plaintiff's Exhibit YY—L. L." And, a copy thereof is also marked "Plaintiff's Exhibit YY —L. L." and placed in the files of Exhibits with the Special Examiner, as follows:

"THIS INDENTURE, Made this 2nd day of August, 1904, by and between SOUTHERN PACIFIC RAILROAD COMPANY, a corporation consolidated and incorporated under the laws of the State of California and of the Territories of Arizona and New Mexico, and having its principal place of business in the City and County of San Francisco in said State, the party of the first part, and KERN TRADING AND OIL COMPANY, a corporation incorporated and existing under the laws of the State of California and having its principal place of business in the City and County of San Francisco in said State, the party of the second part.

WITNESSETH;

That the party of the first part, for and in consideration of the royalties hereinafter set forth to be paid by the said party of the second part to the said party of the first part, hereby grants unto the said party of the second part and to its successors and assigns, for the term of ten years from the first day of January, 1904, together with a privelege of an extension or [**832**] renewal of said term for the further period of ten years thereafter, *provided* that notice, in writing, of its intention to demand the same shall

be given by the party of the second part to the party of the first part prior to the expiration of said first term, the right to mine, excavate, bore, drill and sink for and otherwise collect and develop asphaltum, petroleum, natural gas, tar gypsum, coal or other valuable minerals, substances or products under or upon the lands and premises hereinafter described; also to remove and sell said minerals, substances and products so obtained therefrom; also to construct thereon, maintain, and use such buildings, fixtures and machinery as may from time to time be needed or convenient in carrying on said business and mining operations, and to occupy such portions of said premises as may be necessary or convenient for the same, or for use in connection therewith, and to construct and maintain over, across and along said premises such telephone lines, pipe lines, canals, ditches, roads and highways as may from time to time be needed or convenient, together with the right of way over and along said lands for the passage and conveyance of the said party of the second part, its agents and employees, supplies and machinery.

THE PARTY OF THE SECOND PART shall pay to the said party of the first part, as royalty for and during the term hereby granted, and for and during any extension or renewal thereof as hereinbefore provided for, the one-tenth part of the gross amount of all natural gas, petroleum, tar, gypsum, coal and other minerals, substances and products extracted or obtained from said lands and premises, or the one-tenth part of the gross amount of moneys received

from the sale of said minerals, substances and products.

ALL OF THE PRODUCTS or substances herein mentioned that may be produced on or from said lands, shall be collected by the party of the second part in such manner that the same may at all times during business hours be examined, measured or gauged by the [**833**] party of the first part, or its agents, without let or hindrance; and said party of the second part shall keep true and correct account of all said products or substances obtained, which account shall be subject to examination by the party of the first part, or its agents, at any and all times during business hours. And for the purpose of fixing the amount of royalty to be paid as aforesaid, the party of the second part shall, on or before the 10th day of each calendar month, furnish correct written statements to the Land Agent of the party of the first part of the full amount of any and all products or substances that may have been obtained or extracted on or from said land by it during the preceding calendar month, and the delivery of said minerals and substances, or payment therefor as royalty as aforesaid, shall be made on or before the 15th day of each calendar month.

IF THE PARTY OF THE SECOND PART shall at any time construct any pipe lines for the transportation of gas, petroleum, or other products or substances from said land to any shipping point, the party of the first part shall have the right or option of transporting its share of said gas, petro-

leum or other products or substances through said lines at the actual cost of such transportation.

AND IT IS HEREBY AGREED that if any royalty shall be unpaid for sixty days after the same shall become due and payable, or if default shall be made in any of the covenants herein contained, all rights of the party of the second part in and upon said premises shall, at the option of the party of the first part, cease and determine.

IT IS UNDERSTOOD AND AGREED by and between the parties hereto that the party of the first part its officers and agents shall have the right to go in and upon any portion of said lands and premises occupied by the party of the second part, during said term or any renewal or extension thereof, to inspect the work done or [834] the progress thereof on said lands, and the products and minerals obtained therefrom, and to fix any notices on the said lands that it may deem fit and proper.

THE PARTY OF THE SECOND PART shall have the right to take for its own use and benefit any oil, water or dry asphaltum discovered upon said premises, for fuel, mechanical and domestic uses necessary in the development of said lands, and no royalty shall be chargeable thereon.

The party of the second part furthermore agrees to pay, without suffering them to become delinquent, all taxes and assessments whatever which during the term of this lease may be charged, assessed, levied or imposed upon any improvements placed by said second party upon said lands and premises.

THE PARTY OF THE SECOND PART hereby further agrees that it will not permit or suffer any mechanics', materialmen's, laborers' or other liens of any kind or nature to attach against said lands and premises for any work that shall be done or materials that shall be furnished thereon at the instance or request of said party of the second part.

AND IT IS EXPRESSLY AGREED THAT all mineral and other products, goods, wares or merchandise shipped from said premises by rail by the party of the second part shall be forwarded over the railroad lines of the party of the first part and of the Southern Pacific Company of Kentucky, the lessee of said lines, the leasehold estate of which company in said lines is hereby acknowledged; and also that the choice of routes over which all freight so shipped from said premises shall be forwarded when consigned or destined to a point beyond the line or lines of railroad of the said party of the first part or the said Southern Pacific Company, shall be fixed and determined by said Southern Pacific Company; provided, however, that the rate of charge to be made thereon shall not exceed the rates at the time in force [835] on other rail routes.

IT IS MUTUALLY UNDERSTOOD AND AGREED by the parties hereto that all of the terms, covenants, conditions and obligations in this instrument contained shall also be binding upon the successors and assigns of the parties hereto.

NOTHING in this instrument contained shall be construed so as to limit the right of the party of the

first part to lease or convey to persons other than the party or parties of the second part the lands and premises above referred to, or any part thereof, subject to the rights and privileges therein granted to the party of the second part by this instrument, but every such lease or conveyance shall contain an express provision that the same is made subject to the rights of the party of the second part hereunder.

AND IT IS AGREED that at the expiration of the term aforesaid, or any renewal or extension thereof, or any sooner determination thereof, the said party of the second part will quit and surrender the said lands and premises in as good state and conditions as reasonable use thereof will permit, damages by the elements alone excepted.

THE LANDS AND PREMISES hereinbefore referred to are as follows:

ALL of those certain lands situate, lying and being in the County of Kern, State of California, known and described as follows, to-wit: [836]

KERN DISTRICT:

Township 29 S., R. 28 E.

NE ¼, NW ¼, N ½ of SW ¼, and NW ¼ of SE ¼ of sec 3.

McKITTRICK DISTRICT:

Township 30 S., R. 21 E., Sec. 1.

Township 30 S., R. 22 E.,

Secs. 5, 7, 9, 11, 13, 15, 23, 25, 33;

N ½ and SE ¼ of 21;

N ½ and SE ¼ of 27;

N½ and SE ¼ of 35.

Township 30 S., R. 23 E., Sec. 31.
Township 31 S., R. 22 E.
NE ¼ of Sec 15;
NE ¼ of Sec 23;
NE ¼ of Sec 25.
Township 31 S., R. 23 E.
Secs 5, 9, 15, 21, 23, 25, 27, and 35;
E ½ of Sec 7.
Township 31 S., R. 24 E., Secs 31 and 33.
MIDWAY AND SUNSET DISTRICTS:
Township 32 S., R. 23 E.
Secs 3, 11 and 13;
N ½ of Sec 5.
Township 32 S., R. 24 E., Secs 3, 5, 11 and 13.

ALSO all of those certain lands situate, lying and being in the County of Fresno, State of California, known and described as follows, to-wit:

COALINGA DISTRICT:
Township 19 S., R. 15 E., Secs 27, 31, 33, 35, (including Leases on Sec. 31.)
Township 20 S., R. 14 E., Secs 1, 13, 23, and 25. (Including leases on each)
Township 20 S., R. 15 E., Secs 3, 5, 7, 17 and 29, (Including leases on Sec 7);
W ½ sec 9;
N ½ and SE ¼, Sec 19;
W ½ sec 21;
N ½ sec 31;
W ½ and SE ¼ sec 33.
Township 21 S., R. 14 E., Sec. 25.
Township 21 S., R. 15 E.

Secs 1, 3, 11, 17, 19;
W ½ sec 15;
W ½ and NE ¼ sec 21. [837]

ALL OF THE RIGHTS hereby granted being nevertheless subject to any and all leases of and rights of way over any part or portion of said described premises heretofore made or granted by the party of the first part.

IN WITNESS WHEREOF, the parties hereto have caused their names and corporate seals to be hereto affixed, and these presents to be signed in duplicate on the part of the party of the first part by its Land Agent and Secretary ,and upon the part of the party of the second part by its President and Secretary.

SOUTHERN PACIFIC RAILROAD COMPANY

BY

.....

Land Agent.

AND

.....

Secretary.

KERN TRADING AND OIL COMPANY,

BY

(Signed) C. H. Markham,

.....

President.

AND

.....

Secretary.

Approved as to form.
(Signed) Wm. F. Herrin,
Chief Counsel.
Description of Property correct.
(Signed) E. T. Dumble. [838]

STATE OF CALIFORNIA,)
: ss.
City and County of San Francisco.)

On this.....day of....., in the year one thousand nine hundred and four, before me,..... a Notary Public in and for said City and County of San Francisco, State of California, personally appeared.....known to me to be the Land Agent, and.....known to me to be the Secretary of the SOUTHERN PACIFIC RAILROAD COMPANY, the corporation that executed the within instrument; and each of them acknowledged to me that such corporation executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal at my office in the City and County of San Francisco, State of California, on the day and year above written.

.....
Notary Public in and for the City and County of San Francisco, State of California.

STATE OF CALIFORNIA,)
: ss.
City and County of San Francisco.)

On this.....day of....., in the year one thousand nine hundred and four, before me,..... a Notary Public in and for said City and County of San Francisco, State of California, personally appeared.....known to me to be the President, and.....known to me to be the Secretary of the SOUTHERN PACIFIC RAILROAD COMPANY, the corporation that executed the within instrument; and each of them acknowledged to me that such corporation executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal at my office in the City and County of San Francisco, State of California, on the day and year above written.

.....

Notary Public in and for the City and County of San Francisco, State of California." [839]

Q. By Mr. Mills—Was this attempted lease which I have shown you and which you identify as signed by Mr. Markham in your presence, the lease referred to by the various exhibits contained in the correspondence introduced yesterday and which were kept in that file?

A. Yes sir.

Q. You state that you saw Mr. Markham sign that at the time?

A. Yes sir.

Q. That is, on August 2nd?

A. The 2nd of August.

Q. Was that the time when you first understood that the execution of that lease, if it became known, would cause trouble in the land department, as referred to in this correspondence? Was that the first time you knew about it?

A. Yes; I was taken by surprise.

Q. Did you have any extended conversation with Mr. Markham at that time?

A. Only a few minutes; I was leaving the city that day.

Q. Will you state the substance of your first conversation after you read the lease and understood its purport?

A. I didn't read the lease fully at that time. I went to Mr. Markham's office. He sent for me and when I came in he had this document and merely said, "We are making a lease of certain lands in the Southern Pacific grant and transferring the oil leases to the Kern Trading and Oil Company" and he signed it right then. My recollection is that I merely glanced at some of the descriptions there and told him that I would have to look into that before I signed it, and I declined to sign it at that time. It was sent to my office during my absence.

Q. You left that day for Denver, did you not?

A. Yes. [840]

Q. That was on August 2nd?

A. August 2nd.

Q. After you arrived at Denver, did you get a

telegram from your assistant, Mr. George A. Stone, with reference to that attempted lease?

A. Yes.

Q. And is government's Exhibit FF a copy of that telegram?

A. Yes sir.

Q. I refer you to government's Exhibit GG.

A. That is my reply to it.

Q. Did you ever make any reply to Mr. Cornish as part of your duties as acting land agent as to the state of affairs in the land department?

A. Oh yes; frequently.

Q. What was the nature of those reports? What did you report on?

A. Everything. Very often he would call for specific reports.

Q. Did you ever have occasion to have knowledge that these reports were returned to other parties in San Francisco?

A. How is that?

Q. That any of your reports were returned to other parties in San Francisco. That is, other officials of the road?

A. Yes sir: I have known such things to be done.

Q. Reports that you sent to Mr. Cornish were sent back to other parties who were officials of the Southern Pacific Company?

A. Yes sir; I have known that to be done.

Q. Who were some of the officials that received those reports which you intended for Mr. Cornish?

A. I remember one case in which William F. Her-

rin turned [841] up with one of my confidential reports.

Q. Which had been written to Mr. Cornish?

A. On his order.

Q. Do you know what the nature of that report was?

A. I believe that that report that you are asking about—I don't know that you know excepting as to the general fact which I have testified to.

Q. That is all—

A. —had nothing to do with the Land Department proper.

Q. Mr. Eberlein, on August 2nd when you were in conference with Mr. Markham as to this attempted lease, you have stated that you declined to sign it?

A. Yes sir.

Q. Had you known anything about the Kern Trading and Oil Company before that?

A. Nothing.

Q. And you knew nothing about its purposes and organization?

A. Not a thing.

Q. Will you state why you declined to sign that lease when Mr. Markham offered it to you?

A. Because I saw in there the attempt to dispose of and convey lands that lie right in the region in which some of our selection lists—at least one of the selection lists—had been made.

Q. Are you referring to the body of lands in 30-23?

A. Yes, I am. And those lands were not patented at that time.

Q. Did you inform Mr. Markham of that fact?

A. I may not have informed him at that time, but I informed him that I would take time to look into that lease.

Q. Why was it the fact that those lands lie right there [842] became important to you on August 2nd when he attempted to have you sign that lease?

A. I had made a non-mineral affidavit depending on the knowledge of my assistant who was a field man. I also had the direct backing of the government in making that non-mineral affidavit. That list of lands was made on my order, on the representation to me that it was non-mineral, by my assistant, who was fully informed.

Q. Your assistant, George A. Stone?

A. Yes.

Q. Before we get to that, did you communicate to Mr. Markham any of these facts at that time in that conversation?

A. Maybe not at that conversation, but I did in conversations later.

Q. And within the next few days or months?

A. Oh, within the next few months. The matter was up frequently. I was pressed to sign that lease over and over again.

Q. Do you know whether or not, Mr. Eberlein, any lease of lands belonging to the Southern Pacific Company was made to the Kern Trading and Oil Company during the time you were acting land

agent—any that was ever treated as a valid lease by the Kern Trading and Oil Company and officials of the Southern Pacific Company?

A. Yes.

Q. Is it a fact?

A. Yes; it is a fact.

Q. Why was it necessary for you to sign the lease?

A. Because that was a part of the duties as laid down and prescribed by the board of directors of the Southern Pacific Railroad Company.

Q. In your appointment? [843]

A. Yes.

Q. The resolution appointing you?

A. The acting land agent has been the responsible land officer of the road always, and up to that time he had always signed leases. In this case I was to take the responsibility for the railroad company myself. The president was not to sign it. The secretary was to sign, merely attesting the signature. But I was to be the goat, and I passed it.

Q. When did you first learn that a lease had been executed by any officials of the Kern Trading and Oil Company or of the Southern Pacific Company, acting for the Southern Pacific Railroad Company, or any lease which was treated as valid, without your signature?

A. This lease was spread by the auditor on his books, and treated as a lease without my signature.

Q. This very lease?

A. That very lease.

Q. The lease which has been introduced in evidence here?

A. Yes sir.

Q. By what auditor?

A. C. B. Seger, who was then auditor.

Q. When did you first learn that?

A. During the fall of 1904. Because we were importuned all the time to sign vouchers paying for pipage charges on that royalty oil of these different leases that were assigned or ever acknowledged at any time while I was in office.

Q. Those piping charges were obligations on whom to pay?

A. They were obligations on the Southern Pacific Railroad Company to pay.

Q. Under some lease which had been spread on the books of the auditor of the Southern Pacific Company?

A. Yes sir. [844]

Q. Had you ever seen that lease spread on the books?

A. No sir.

Q. Do you know whether in any way it departs from the form or description of the property contained in the leases already in evidence in this case?

A. I can only speak of the fact that the Land Accounts Bureau, in the auditor's office, acted upon it, and called on us for acts periodically which would give the right to charge the Southern Pacific Railroad Company with charges arising under the terms of that lease.

Q. Do you know specifically whether that lease which you have stated was spread on the books of the auditor of the Southern Pacific Company, contained other lands than the lands which are in this lease which is already in evidence?

A. I can't testify as to that.

Q. You don't know as a matter of fact whether it has additional lands or not?

A. No sir.

Q. Do you know whether that lease specifically contained the lands in this suit,—the lease which you have referred to as being spread on the books?

A. No sir. I have been informed that it did, but that is all.

Q. By Mr. Shoup—The lease that you are referring to and Mr. Eberlein is referring to is the lease to the K. T. O.? The attempted lease?

A. I understand that I am testifying about this lease without my signature.

Q. The attempted lease to the K. T. & O.

A. Yes sir.

Mr. Lewers—I move that his answer be stricken out as purely hearsay, that it does refer to this land, and as not the [845] best evidence.

Q. By Mr. Mills—When were you informed of that, Mr. Eberlein, that it does contain the land in this suit?

A. In the fall of 1904—no; I will qualify that. The information brought to me through the Land Accounts Bureau was that that lease, of which this is

all there is—right here—that that lease they were acting upon and recognizing.

Q. When you say "that lease they were acting upon and recognizing", what lease do you mean?

A. I mean this uncompleted instrument right here.

Q. Which has been introduced in evidence in this case?

A. Yes sir.

Q. And you were informed of that in the fall of 1904?

A. Yes sir.

Q. About what month in the year 1904?

A. I can't testify as to that.

Q. Was it prior to November or October?

A. It was probably late in the year when these documents began to come in for our signature. Just what month, I can't pretend to tell you.

Q. I show you this paper, Mr. Eberlein, and ask you what it is, if you know?

A. That is a copy of a letter from Mr. E. E. Calvin addressed to myself, C. B. Seger and E. T. Dumble, jointly.

Q. Where is the paper from which that was copied—the original letter?

A. I don't know. This must be the copy that Mr. Calvin sent direct. It is dated September 26, 1907.

Q. This is the original, then?

A. Yes, so far as we are concerned.

Mr. Mills—We offer this in evidence.

Mr. Lewers—No objection. [846]

The letter last referred to and offered in evidence is marked "Plaintiff's Exhibit ZZ—L. L."

Mr. Mills—I will read this into the record:

"V-20-30-22

COPY

SOUTHERN PACIFIC COMPANY

December 26th, 1907.

Mr. C. W. Eberlein,
Acting Land Agent, Building,
Mr. C. B. Seger,
Auditor, Building.
Mr. E. T. Dumble,
Consulting Geologist, Building.

Dear Sir:

You will remember our inability to locate original or copy of lease to the Kern Trading & Oil Co. of lands in Kern River, McKittrick, Midway, Sunset and Coalinga Districts. As it is evident that all record of this document was lost in the fire, I have prepared substitutes and enclose for your files and information one copy of each lease from S. P. Co. to Kern Trading & Oil Co. covering above districts.

Yours truly,

(Sgd.) E. E. Calvin."

Q. Mr. Eberlein, this letter says, "As it is evident that all record of this document was lost in the fire, I have prepared substitutes and enclose for your files and information one copy of each lease from S. P. Co. to Kern Trading & Oil Co." Was that "S. P. Co." the Southern Pacific Company or the Southern Pacific Railroad Company?

A. He may refer there to a list of lands of the Southern Pacific Company.

Q. What is your recollection whether the substitute was [847] enclosed in this letter at the time?

A. I think there was a document enclosed.

Q. Do you recollect now whether it was in form and description the same as this lease or some other lease?

Mr. Lewers—To which we object on the ground that it is calling for secondary evidence concerning a document, and the document is the best evidence.

Mr. Mills—I want to fix in the record what is referred to.

A. All I can say is it was not recognized.

Q. The lease in evidence was never recognized by your department?

A. Nor was that that he refers to there.

Q. Never recognized by you?

A. No sir; not by me.

Mr. Mills—You may cross-examine.

A. There is one thing more, Mr. Mills. In the testimony of Mr. Stone yesterday, the imputation is left there in some way that E. T. Dumble inspired the making of that list. I want to go on record here to the fact that he did not, so far as I know. I did not know the man at that time.

Mr. Shoup—We intend to ask you about that.

A. All right.

Q. By Mr. Mills—In 1903 you didn't know him?

A. Yes sir. I didn't know him at that time.

Mr. Lewers—We expect to go very fully into that.

Whereupon the further taking of testimony herein was adjourned, to be resumed on June 1, 1912, at 10 o'clock A.M.

On Monday, July 1, 1912, at two o'clock P.M., at San Francisco, California, in the Federal Building, the further taking of testimony herein was resumed pursuant to stipulation [848] and agreement of counsel:

Mr. Mills—I want to ask Mr. Eberlein a few questions before I turn him over for cross-examination.

Mr. Lewers—At this time I would like to have the balance of the papers produced by Mr. Eberlein under the subpoena, a portion of which you have used in evidence, in order that I may examine them for the purposes of his cross-examination and for use in connection with it if I am so advised.

Mr. Mills—I will state that before we finish the direct examination we will produce all of the papers which were produced by the witness in response to the subpoena, excepting those with reference to which it would be necessary to lay the foundation which would properly entitle you to produce secondary evidence.

Mr. Lewers—Do I understand you will not permit me to examine papers which you have in your possession?

Mr. Mills—I don't know what you understand; I would like to make myself as clear as possible.

Mr. Lewers—As I understand, you will produce a portion of those papers and introduce them in evidence and you will retain the balance. Now, what

you may be advised so far as the introduction of your testimony is concerned is of course up to you to determine; but what we want is the opportunity to examine these papers, and to use them in connection with the cross-examination if they have any bearing upon it, in order that this matter may be gone into entirely. And at this time I will state that before we get through this entire matter will be gone into and all matters of correspondence and documents and papers will be gone into, and we are perfectly willing to state, and desire to make this as emphatic as possible, that you may have anything and everything in our possession or that we can get that bears upon this in any [**849**] shape or form, provided you will extend to us the same favor as to papers which you may have in your possession or control that have any bearing upon this case. And I will state that by that I do not mean merely the balance of the papers produced by Mr. Eberlein; I mean other papers you have in your possession and control.

Mr. Mills—If I have any papers that you think will be of benefit to your case of which I am not now advised, you ought to know how to get them.

Mr. Lewers—I know that I cannot get them, because you claim privilege. You know perfectly well you are in a position where the government officials can claim privilege and prevent us getting certain documents which have a bearing on this case, or with reference to which we believe they will have a bearing upon it. On the other hand any document we have that you are so advised with reference to, you

can compel us to produce. But we are willing to relieve you of the necessity of doing anything of that kind if you will equally extend to us the courtesy of permitting us to see everything that you have.

Mr. Mills—Now, if you will specify what you want, I assure you you will be given it. If we have anything of value to you we will give it to you. At present I know of nothing.

Mr. Lewers—That is, you will be willing to produce anything we may specify that we think has a bearing on this case?

Mr. Mills—I will produce anything I have that I think will help the Southern Pacific Company; but I have not anything that I regard in that light.

Mr. Lewers—That is, you reserve the right to determine it yourself?

Mr. Mills—Will you resume the stand, Mr. Eberlein? I want to ask Mr. Eberlein a few questions before turning him over [**850**] for cross-examination.

Whereupon, CHARLES W. EBERLEIN was recalled and direct examination resumed, as follows:
By Mr. Mills:

Q. On the concluding day of the testimony in chief, at page 1788 of the record of the reporter's transcript in this case, in response to a question by me: "Was that the first time you suspected that these lands might turn out to be mineral in character or might be mineral in character?" The copy of the transcript of your answer which was delivered to me reads: "I suspected them of being mineral in char-

acter at the time I made that non-mineral affidavit." Is that a correct statement of your testimony?

A. No; that is clearly erroneous.

Q. Now, the reporter has since then furnished me a copy which reads as follows: "A—I did not suspect them of being mineral in character at the time I made that non-mineral affidavit". Is that correct?

A. That is correct.

Mr. Mills—Let it so appear in the record, then, Mr. Examiner.

Mr. Lewers—That correction has already been made, has it not, Mr. Longley?

The Special Examiner—It has.

Q. By Mr. Mills—Referring to government's Exhibit TT, which is a letter addressed to Hon. W. D. Cornish, vice-president of the Southern Pacific Company, dated September 3, 1904, signed Charles W. Eberlein, acting manager, and appearing in the reporter's transcript at page 1773, I refer to this language: "This lease has been lying here for some time during my absence, and I may be called upon for it at any time. I would there-[851]-fore esteem it a great favor if you would give me any suggestion you may have by wire". What lease did you refer to in that letter?

A. Well, no lease, but this attempted lease that has been produced.

Q. That is, the lease that has already been introduced in evidence in part executed by Mr. Markham?

A. Yes sir.

Q. "I can stave off the delivery of this document

for some time yet, I think for the reason that if the knowledge of this lease becomes public property it will probably cause us a great deal of trouble in the United States Land Office, and may result in the loss of a large body of adjacent lands which may hereafter turn out to be mineral and oil-bearing. I found on taking charge of this office that a large body of our lands, especially indemnity lands in the Coalinga, McKittrick and Sunset fields had been withdrawn by the United States from entry, pending examination as to their mineral character. I have worked very hard and very steadily to get the United States to complete its report and dispose of this matter. I have just succeeded in getting the special agent in charge to make a report releasing our land from interdictment. If it becomes known that we have executed a lease of lands interspersed with those already under selection by us and that the lease is for oil purposes, it seems to me that it will immediately encourage oil speculators to file upon the lands so selected and that the government will have good ground for refusing patent, inasmuch as we practically fix the mineral status of the land by this lease." Did you ever receive in writing a reply to that letter of which I have quoted a small excerpt?

A. No sir. [852]

Q. Now, that was early in September, 1904. Did you have any occasion during that fall of 1904 to go to New York for a conference with Mr. Cornish, the addressee in that letter?

A. Yes. I was there late in the fall or early winter.

Q. Of 1904?

A. 1904.

Q. And did you have any conference with Mr. Cornish about the subject matter of that letter?

A. Yes sir.

Q. Now, will you relate, as nearly as you can recollect, what the substance of the conversation was with Mr. Cornish with respect to what I have read from that letter, Mr. Eberlein? Before entering upon that, may I ask you whether you took with you at that time this attempted lease which has been introduced in evidence and such correspondence as has also been introduced?

A. Yes sir.

Q. Saved by you from the conflagration of 1906?

A. Yes sir. This matter was taken up by Judge Cornish and myself and discussed at that time.

Q. Did you talk over that phase of the letter, specifically, which reads as follows: "If it becomes known that we have executed a lease of lands interspersed with those already under selection by us, and that the lease is for oil purposes, it seems to me that it will immediately encourage oil speculators to file upon the lands so selected and that the government will have good ground for refusing patent, inasmuch as we practically fix the mineral status of the land by this lease."

A. Yes; we discussed all phases of the matter,

and agreed as to the impropriety of a lease at that time.

Mr. Lewers—I move that that be stricken out and that the substance of the conversation be given—not the conclusion.

Q. By Mr. Mills—The lands referred to by you in that **[853]** letter, I believe you stated once, were the lands in suit in Township 30 South, Range 23 East, Mount Diablo Meridian?

A. I understand now the lands in suit are the lands covered by that selection list 89.

Q. Yes sir.

A. Yes sir.

Q. And those were the specific lands to which you referred in your letter and in your conversation which occurred with Mr. Cornish?

A. Must have been.

Q. Now, state, as nearly as you can recollect, what conversation you had with Mr. Cornish about the execution of that lease?

A. We took this matter up with all the papers; looked them through, and I asked him what he wanted done with them, and he was very positive in his instruction that I was not to sign it or to recognize it. He considered it an improper lease to be made, having reference to the selection list of lands in the immediate neighborhood. He furthermore told me that I was to keep all those papers in my own possession, so that they might not be in the office where they might be considered as going where any-

one would have any knowledge of the document, so that it could not be acted upon in some way during my absence; that is, he particularly cautioned me against the approval of those vouchers, which were beginning to come in at that time for pipeage.

Q. Well, did he, at that time, instruct you positively to keep the papers which have been introduced, constituting the correspondence between yourself and other officials of these roads, and have them filed separately from the other files of the Land Department of the Southern Pacific Railroad Company?

A. His instruction was that I was to keep those to myself. [854] He said they might hereafter be necessary for my protection. They have been kept by me ever since.—And incidentally for his own protection.

Q. Did you and Mr. Cornish at that time recognize any trouble which might arise in the future from the making up there of those documents?

Mr. Lewers—To which we object, on the ground it calls for the conclusion of the witness, and it is leading and suggestive.

Mr. Mills—You may state it in your own way.

A. We naturally recognized at least the very ambiguous position in which we would be placed, both of us, by that lease, if that lease were made—and especially if I made the lease, I having also made the selection list which was at that time unapproved.

Q. That is, it had not gone to patent?

A. It had not gone to patent. It had been approved but not patented.

Q. And in support of that selection list referred to by you which has been introduced in evidence, you had made the usual non-mineral affidavit, testifying under oath that the lands, so far as you know, were non-mineral in character?

A. Yes sir.

Q. Now, did the fact that you had made that non-mineral affidavit, and the further fact that the lands were in process of administration in the Land Department of the United States, and no patent having issued, give you notice of the trouble which would ensue if you executed that lease?

Mr. Lewers—To which we object, on the ground it is leading and suggestive in the extreme. The witness is a very intelligent witness and is quite able to tell what took place and what was the purpose in his mind without being coached by [855] counsel.

A. I don't know as I understand that question exactly; but I simply state, as I have already stated, that the fact that I had made a non-mineral affidavit covering a large selection list, in perfect good faith, believing the fact to be as set forth in that non-mineral affidavit, it didn't seem good policy, to say the least, for me to turn around and make a lease of lands which were in juxtaposition to these same lands, and I believed, and Judge Cornish believed thoroughly, that it might give rise to trouble.

Q. By Mr. Mills—Now, what trouble would you expect from that, and what trouble did you have in mind?

A. Naturally would expect that if the lease was made at that time, with those lands mixed up as they were, or adjacent, that the government of the United States, having in mind that they were very active about that time in nosing into everything that affected railroad lands, would be very apt to call that lease at least in question, and make effort, at least —or hold it up or entirely knock it out.

Q. In other words, to completely preclude the possibility of the Southern Pacific Railroad Company acquiring title under that list?

A. Yes, very probably would.

Q. Now, you spoke of the juxtaposition of certain lands embraced in the lease referred to by you to those which were embraced in the selection list?

A. Yes sir.

Q. The lands which were in the lease and contemplated by the maps accompanying the lease were to be leased to the Kern Trading and Oil Company, as I understand it?

A. Yes sir.

Q. And those lands were interspersed with the lands which **[856]** were embraced in the selection list in support of which you made the non-mineral affidavit? Am I correct in that?

A. Yes sir. That is my understanding.

Q. Now, in your discussion with Mr. Cornish at

that time did he say anything to you about or caution you in any way about having your assistants instructed as to any recognition to be given to the lease?

A. Yes.

Q. Will you state what that was?

A. He gave me very particular instructions about having that known to just as few as possible in the office—thought it was best—and that they be instructed as to what to do in all cases; that they were not to act, but refer all questions to me that might arise, or to him.

Q. Now, the papers to which you have referred as having been the subject of that instruction were government's Exhibits EE, FF, GG, HH, II and so on down to ZZ?

A. No.

Q. Excepting what?

A. Only those that were in existence at the time of the conference.

Q. I say, excepting those which appear to have been written before that time?

A. After that time.

Q. But what I mean to say and what I meant to intend by the question, was that all of the papers referred to by Mr. Cornish are included in some of these exhibits?

A. Oh, yes; but only such as were in existence at the time of the conference.

Q. Was there any attempt, to your knowledge, subsequent to that conversation, to put through any

vouchers for piping charges by the Southern Pacific Railroad Company, or against [857] the Southern Pacific Railroad Company?

A. Yes sir.

Q. When, and under what circumstances?

A. Well, I believe they were rendered monthly.

Q. Yes. Explain the nature of those piping charges.

A. The lease, as I remember it, provides for the payment by the Southern Pacific Railroad Company, of the charge for pipeage of the royalty oil, and that was to be paid on voucher, and those vouchers were rendered by the auditor every month.

Q. When did you first receive notice of that?

A. I think in the fall of 1904. I can't fix the date, but it was in the year 1904 I am very sure.

Q. Did you ever recognize those vouchers in any way?

A. No sir.

Q. And solely because of your refusal to execute the lease?

A. My refusal to execute the lease and by order of my superior officer.

Q. Mr. Cornish at that time was vice-president of the Southern Pacific Company, with offices at 120 Broadway, New York, was he not?

A. Yes sir.

Q. What other office did he hold at that time?

A. Well, in my testimony I said that I didn't know whether he was connected with the Southern

Pacific Railroad Company. I have thought that ever since, and though I cannot fix it absolutely I believe that he was the president of the Southern Pacific Railroad Company at that time and up to the time of his death. That is subject to correction, but I believe that to be the fact.

Q. As well as the vice-president of the Southern Pacific Company? **[858]**

A. Yes.

Q. Now, you state that you had received no reply to the letter marked government's Exhibit TT, dated September 3, 1904, by Mr. Cornish. Did you at any time ask him why he did not reply to that letter?

A. No; I don't think I did. I talked to him about the letter.

Q. Did he give any reason for not replying to that letter?

A. No, he did not.

Q. You had asked for telegraphic reply, I see?

A. Yes.

Q. Now, subsequent to that conversation you returned to San Francisco. Did you take any action, under those instructions, as to the segregation of those papers?

A. Yes sir, I did. I kept them very carefully.

Q. And what did you do in that respect?

A. Well, I put them in a safe deposit vault.

Q. What safe deposit vault did you put them in?

A. California Safe Deposit & Trust Company.

They were kept there—taken in and out, but that was where I aimed to keep them. Kept them there for the protection of both the railroad company and myself. A part of them were in the office of the company at the time of the fire, in a private safe we had there. I think that my assistant had access to it, and I had access to it, and these carbonized remains are what were taken out of that safe.

Q. Who were your assistants at that time?

A. Mr. George A. Stone was assistant.

Q. When did Mr. Conlin become assistant?

A. Either late in 1906 or—probably not until 1907. I can't remember.

Q. The Mr. Stone you refer to is the Mr. George A. Stone who [859] testified in this case?

A. Yes sir.

Q. Do you know, Mr. Eberlein, what powers Mr. Stone had with reference to the land affairs of the Southern Pacific Railroad Company while acting as your assistant?

Mr. Lewers—Objected to as having been gone into very fully heretofore.

Mr. Mills—I expect to go into it more fully this time.

A. He had the powers testified to the other day; that is, he had powers enough to fully run the affairs of the department during my absences, which were frequent and long continued. He of course had dictated and signed letters, signed vouchers, payrolls; did everything, in fact, that I could do, except such acts as were limited to me by my appointment.

Q. Now, he was assistant to you at the time you first were appointed as Land Agent?

A. Very shortly afterwards.

Q. Had he been in the office of the Land Department prior to your arrival there?

A. Yes.

Q. How long a period of time would you be away from the office at any one time during the period when he was assistant?

A. Oh, three to four months sometimes. I was in New York frequently and spent possibly half the time there.

Q. Well, you came to the Land Department, I believe you testified, some time in 1903?

A. No; I came to the city—oh, you mean some time in 1903?

Q. Yes.

A. Yes; August, 1903.

Q. At that time had you any knowledge of the base lands in the location of the indemnity main line grant of the [860] Southern Pacific Railroad Company?

A. When I went into the office?

Q. Yes.

A. No; I had no knowledge of them at all.

Q. How soon after arriving there was it that the selection list of these lands was first made?

A. I think it was made that same month—August.

Q. Who prepared that selection list and when did you first learn of it?

A. It was prepared by Mr. Stone. He had charge of all that work all the time he was in the department while I was there.

Q. Mr. Stone has testified that one E. T. Dumble, a consulting geologist of the defendant Southern Pacific Company, came into the office and for reasons best known to himself pressed the selection of these lands in suit. Do you know anything about that?

A. Why, I have no recollection of Mr. Dumble having had anything to do with it, that list or any other list.

Q. All you remember of it, then, is what?

A. I don't remember any of it.

Q. I mean to prepare the selection list?

A. Simply the authorization of Mr. Stone to make selection of lands and my execution of that list.

Q. Did Mr. Stone present the list to you for your signature?

A. Yes. He had to.

Q. Did you have at that time any knowledge of the base lands contained in that list?

A. No. I knew nothing about it.

Q. Did you know anything about the other lands —their character or anything else?

A. Oh, no; I didn't know anything at all about the [861] department at that time.

Q. Well, then, this list was presented to you, I understand, for your signature, by Mr. Stone?

A. Yes sir.

Q. And was prepared by Mr. Stone?

A. Yes sir.

Q. And everything you were required to do, as acting land agent, was to execute the application and the affidavit?

A. Yes sir. That was limited to me.

Q. Did you have any talk with Mr. Stone when he presented the list?

A. I had nothing more than to inquire as to the non-mineral character, inasmuch as I had to make the affidavit.

Q. Of whom did you make that inquiry?

A. Mr. Stone.

Q. And he was the only man you talked with about it.

A. Yes.

Q. And what did he say about it?

A. He said they were not mineral.

Q. And on that you executed the non-mineral affidavit?

A. Yes sir.

Q. Did you send out anybody at that time to make any examination of the lands?

A. No sir, I didn't do it. I didn't consider it necessary. Stone was familiar with the land—claimed to be.

Q. Well, he was familiar generally with the location of the entire ground, wasn't he?

A. Well, I understood that he had been through this country, knew the lands.

Q. Now, had you at that time, or since—at any time—acquired any knowledge further than the knowledge which was given you by Mr. Stone, of the character of those lands, on the [862] occasion you have mentioned?

A. Personally I know no more about those lands now than I did then.

Q. Now, after that lease was made, Mr. Eberlein, did you subsequently, when you became more accustomed to the office, make any detailed examination of the lands that were embraced in subsequent lists?

A. We instituted a systematic examination of lands after that.

Q. After that time?

A. Yes sir.

Q. But at the time this list was presented by Mr. Stone you were somewhat green in the business of the Southern Pacific Railroad Company's land grant?

A. Yes.

Q. And were unfamiliar with the location or character of any of the lands?

A. Yes sir.

Q. Is that correct?

A. That is true.

Q. Did you ever have any discussion with Mr. Dumble after the offer was made that you execute this lease known as government's Exhibit YY, respecting his activities in examining lands not yet patented to the railroad company?

A. I don't remember a discussion with Mr. Dumble. I know I made protests in writing to him; but the discussion was had with other people—not with Mr. Dumble.

Q. Well, with whom?

A. Well, the matter was discussed with Mr. Kruttschnitt, Mr. Cornish and Mr. Markham, as I remember it.

Q. Beginning about what time? That is, what year?

A. It began in this year of 1904. **[863]**

Q. Right after this lease was proposed?

A. Yes; I think about that time.

Q. Well, what was the subject of that discussion? Did you ever make any protests, in any of those discussions, against the examination of lands by Mr. Dumble?

A. I objected to Mr. Dumble's examination of unpatented land without any reference to the department, for the reason that I was fearful that it might charge us with notice of the mineral character of the lands. Mr. Dumble didn't give us any information at all—never did—I didn't co-operate in any sense at all—and I heard or had reason to believe that a good deal of examination was going on of granted lands, and such of those as were unpatented and believed that it was very bad policy to examine before patent issued, especially without any reference to the land office.

Q. Now, on this lease which is marked govern-

ment's Exhibit YY, it appears that the name of E. T. Dumble is endorsed under the statement "correct as to description." That lease was dated August 2, 1904. Did you know at that date that Mr. Dumble was consulting geologist in the employ of the Southern Pacific Company?

A. I think so.

Q. What did that endorsement of Mr. Dumble's signature "Correct as to description" convey to your mind at that time?

A. Well, it was a surprise to me. I didn't know that Mr. Dumble knew anything at all about the grant of lands to the company; and in my letter to Mr. Markham, which is already in evidence, I called attention to errors in that list of lands which might have been avoided if the land department had been consulted about it. There were some errors such as the inclusion of lands entirely outside of the grant, that we had nothing to do with so far as we knew, and of course my [**864**] signature as land agent would not have been effectual at all to transfer any title to such lands—had no jurisdiction over them at all. There were a few errors of that kind, and from that time on the matter was pretty unpleasant; there were frequent clashes between the consulting geologist's office and the land department by reason of the fact of their insistence upon many things which in my opinion they had nothing to do with as they had no responsibility for it, and, as far as I knew, had no knowledge of it.

Q. How was Mr. Dumble's activity with reference to unauthorized examinations of lands not yet patented brought home to you?

A. Well, I don't understand that exactly.

Q. Well, were there ever any demands made upon you for lists by Mr. Dumble?

A. Oh, yes, yes; frequent demands for lists, and for lands. One demand was made in which, as I remember it, it was stated that they had frequent calls for granted lands and he wished to be advised fully so that they could answer all inquiries. And I replied to them that if they had any such inquiries about the granted lands of the company there was only one office that had any right to mix up in it or give any information, that the land department was responsible and if he had any such inquiries he could refer them.

Q. Did Mr. Dumble ever, prior to 1904, offer to you personally any of his expert knowledge which he had gained in the granted lands of the Southern Pacific Railroad Company as to the mineral or non-mineral character of those lands?

A. Prior to 1904?

Q. Prior to the date of the patent, in December, 1904?

A. No; I think not. I don't think so.

Q. Mr. Stone has testified that Mr. Dumble came in in 1903 to the office of the acting land agent of the Southern Pacific [865] Railroad Company, and for reasons, as he says, best known to himself, pressed

the selection of the very lands in suit. Have you any reason now to deny the truth of that statement, so far as you personally know?

Mr. Lewers—I object to the question, on the ground it assumes something in evidence which is not in evidence; that that is not a fair statement of Mr. Stone's testimony. Mr. Stone says he was under the impression that that had happened.

Mr. Mills—I will let the record speak for the correctness of my statement.

A. I don't think I would want to put it in that way—"deny the truth of Mr. Stone's statement."

Q. You may state it any way you please.

A. I can only say I have no recollection of Mr. Dumble having been in there in regard to that list at that time.

Q. You personally have no recollection, and he never came to you?

A. I don't think he ever came to me. I don't think I knew the man at that time. I have no recollection of him.

Q. Do you know whether he went to Mr. Stone as Mr. Stone has stated?

A. No; I don't.

Mr. Lewers—You know, Mr. Mills, Mr. Stone didn't state that Dumble went to him in connection with the matter. That is not a fair statement.

Mr. Mills—I don't mean to mis-state the record, and I will let the record stand as against my statement. I think I have quoted it correctly.

Q. Do you know whether Mr. Stone had access to this separate file which you have referred to, at any time after the papers were segregated and kept separately?

A. Oh, yes; he had access at all times. He had the file, [866] copied file, left with him when the papers were taken to New York.

Q. I show you this, Mr. Eberlein, and showing you this paper marked for identification AAA, what is that, if you recognize it?

A. That is a telegram from George A. Stone to me, dated December 27, 1907, addressed to me at 120 Broadway, New York.

Q. Is this the identical telegram that you received at that time?

A. Yes sir.

Q. Will you please read this translation and say whether that is a correct translation of the telegram?

A. Yes sir; it is.

Mr. Mills—Inasmuch as the exhibit AAA is in secret cipher and as the witness has testified that the translation which I shall offer is a correct translation, will you gentlemen stipulate the translation may be received with equal force as if the original itself were introduced?

Mr. Lewers—Oh, yes.

Mr. Mills—Then this translation is offered in evidence.

Mr. Lewers—No objection.

Mr. Mills—Then let this be admitted as government's Exhibit AAA.

Mr. Mills—I will read this into the record: "San Francisco, December 27, 1907. Charles W. Eberlein, Care Wm. D. Cornish, 120 Broadway, New York, N. Y. Have received from E. E. Calvin copy of lease from S. P. R. R. Co. to Kern Trading & Oil Co. of lands described in list which you have. Executed Dec. 12, 1907. Description approved by E. T. Dumble. Geo. A. Stone."

The telegram last referred to and offered in evidence is [867] marked "Plaintiff's Exhibit AAA—L. L."

Q. I show you this letter, Mr. Eberlein. You may state what it is.

A. That is a letter from Henry Conlin, who was my assistant, dated December 27, 1907, and addressed to me at 120 Broadway, New York.

Q. This letter appears to be dated the same date as the telegram translation, and he says, "I inclose you translation of telegram."

A. Undoubtedly the same.

Q. This is the one that was inclosed?

A. Yes sir.

Q. That is, that Exhibit AAA was enclosed in this letter?

A. Yes sir.

Q. Do you know Mr. Conlin's signature?

A. Yes sir.

Q. Is that his signature?

A. That is his signature.

Q. Did you receive that letter in due course of mail?

A. I did.

Mr. Mills—Offer this letter in evidence.

Mr. Lewers—No objection.

Mr. Mills—The letter which transmitted that exhibit reads as follows:

"San Francisco, Cal., December 27, 1907.

Mr. Charles W. Eberlein, C/o
Hon. Wm. D. Cornish,
120 Broadway, New York, N. Y.

Dear Sir:—

I inclose you herewith translation of telegram sent you to-day regarding execution of leases by Southern Pacific Railroad Company to Kern Trading & Oil Company. [868]

You have in your possession a list of the lands embraced in these leases. You also have a map of these same lands, with colors showing status of title.

I also inclose you copies of the leases.

As you will note, Prof. Dumble has approved the descriptions, but there are a great many tracts described which, according to our records, are not owned by the company.

Yours truly,
Henry Conlin,
Ass't to Acting Land Agent."

The letter last referred to and offered in evidence is marked "Plaintiff's Exhibit BBB—L. L.

Q. I show you this letter, Mr. Eberlein. Please state what that is.

A. That is a copy of a carbon copy, apparently, addressed by E. T. Dumble to C. B. Seger, auditor, August 8, 1906.

Q. And what do the letters "CC to CWE" mean?

A. "Carbon copy to Charles W. Eberlein."

Q. So that you received a carbon copy of a letter from Mr. Dumble?

A. Yes sir; this is a copy of that carbon copy.

Q. What became of the original carbon copy that you received?

A. I think it must be still in the office. This is dated—

Mr. Mills—Have you any objection to the introduction of this?

Mr. Lewers—No.

Mr. Mills—We offer it in evidence.

Mr. Lewers—I suppose it is offered merely with reference [869] to the lands referred to in the lease. Of course it has nothing to do with Coalinga.

Mr. Mills—I will read this into the record:

"(5-21-06-1M) Form 5746 B.

(Copy)

KERN TRADING AND OIL COMPANY.

E. T. Dumble, Vice-President and General Manager. In reply Refer to No.

Oakland, Cal., August 8, 1906.

Mr. C. B. Seger,
Auditor,
City.

Dear Sir:—

Please be advised that the lease on Section 25, Township 20, South Range 14 East, Coalinga, formerly operated by Corey and Canfield under lease G-77 originally leased to Smith and Bryner, having been forfeited, the Kern Trading and Oil Company will operate the property under the general lease which it holds covering this land and paying as royalty one-tenth of total production.

Yours very truly,
(sgd) E. T. Dumble.

ETD
CC to CWE"

Copy of letter last above referred to and offered in evidence is marked "Plaintiff's Exhibit CCC—LL."

Q. By Mr. Mills—What is this paper I hand you?

A. That is a copy of a carbon copy of a letter addressed by E. T. Dumble to C. B. Seger, Auditor, August 8, 1906. The carbon copy was sent to me.

Q. That is to say, one copy went to Mr. Seger and one to [870] you, from Dumble?

A. The letter was addressed by him to Mr. Seger and the copy sent to me.

Q. By Mr. Dumble?

A. Yes; by Mr. Dumble.

Mr. Mills—This is offered in evidence.

Mr. Lewers—No objection.

Mr. Mills—I will read this into the record: S9 G—

"(5-21-06-1M) COPY Form 576 B

KERN TRADING AND OIL COMPANY.

E. T. Dumble,
Vice-President and
General Manager In reply Refer to No.

Oakland, August 8, 1906.

Mr. C. B. Seger,
Auditor,
City.

Dear Sir:—

Please be advised that the lease on Section 31, Township 19 South, Range 15 East, Coalinga, formerly operated by the El Capitan and affiliated oil companies under lease G-20 having been forfeited, the Kern Trading and Oil Company will operate the property under the general lease which it holds covering this land and paying as royalty one-tenth of total production.

Yours very truly,

TED (Sgd) E. T. Dumble.

CC to CWE

(The following written in ink:)

G.A.S.

compared by J.E.A.

Aug. 22-06

This copy made and attached to this file to show Mr. Dumble's [871] understanding about execution of lease to Kern Trading & Oil Co. This office has no information that said lease was ever executed G.A.S."

The copy of letter last above referred to and offered in evidence is marked "Plaintiff's Exhibit DDD—L.L."

Q. By Mr. Mills—Whose handwriting is this in, Mr. Eberlein?

A. That is the handwriting of Mr. George A. Stone.

Q. Do you know what these figures appearing here mean, "Form so and so"?

A. No. That probably is the stationer's mark.

Mr. Mills—Now, Mr. Lewers, you called for all the papers which Mr. Eberlein produced under that subpoena. They have all been introduced with the exception of these two papers and three or four maps pertaining to lands outside of the McKittrick district, in connection with that deed.

Mr. Lewers—Haven't you any letters earlier than August, 1904?

Mr. Mills—Was that the earliest introduced?

Mr. Lewers—Yes.

Mr. Mills—No. Having shown my good faith in the matter, and based on your promise to produce, we now formally ask you to produce the lease dated December 12, 1907, executed between the Southern Pacific Railroad Company, defendant, and the Kern Trading and Oil Company.

Mr. Lewers—I will produce them, but I have not them with me now.

Mr. Mills—When will you produce them?

Mr. Lewers—I think in the morning—that is, bring

you a copy. I don't know whether I have the original or not.

Mr. McCormick—We also ask you to produce the lease men [872] tioned in the two letters which have just been introduced in evidence and marked respectively "CCC" and "DDD", designated therein as "The general lease which the Kern Trading and Oil Company holds in Coalinga," in the one instance and "general lease which the Kern Trading and Oil Company holds" in the other.

Mr. Mills—You may cross-examine.

CROSS-EXAMINATION OF CHARLES W. EBERLEIN

By Mr. Lewers:

Q. Mr. Eberlein, I show you a card, and ask you if you know what that is or by whom it was prepared?

A. That may have reference to something in the land department, but I can't identify it.

Mr. Lewers—I ask that this be marked for identification "Defendants' Exhibit No. 1."

The card last referred to is marked for identification "Defendants' Exhibit No. 1—L. L."

Q. You came to San Francisco in June, 1903, did you not?

A. I think so.

Q. So that when you said August a few moments ago as your date of arrival it was inadvertent?

A. That is a mistake. I took possession of the office in August.

Q. And when you first came here you were engaged in independent work in connection with the plan of reorganization, were you not?

A. General investigation. [873]

Q. Where were your offices at that time?

A. I think at the Palace Hotel.

Q. That is, you made the hotel an office?

A. Yes; I had no office that I remember. None had been furnished to me.

Q. Do you remember the number of the room that you used as your office?

A. No.

Q. Was it room 71?

A. No. 71, I think—this is simply my recollection. 71 I think is the room in the old Wells-Fargo Building. That was the office of the Southern Pacific Railroad Company.

Q. And that is where you were for a time after you became acting land agent? Is that the fact?

A. Yes; we were there until the offices were removed over to the Merchants Exchange.

Q. You moved first to the offices of the Southern Pacific Railroad Company when you were appointed acting land agent, did you not?

A. I simply took charge in that office.

Q. And at that time did you discontinue the other work which you had had on hand for the time being?

A. Well, now, if you mean the general work of

the reorganization, it would necessarily interrupt it by having to take hold of a lot of detail with which I was entirely unfamiliar.

Q. You were, however, familiar with the land grants of railroads in general, at that time, were you not?

A. I had been informing myself for the month preceding.

Q. And you had at that time some experience in the Union Pacific Company as to the method of handling railroad land grants? [874]

A. Yes.

Q. So that it was not entirely a new matter with you?

A. Oh, no.

Q. And it was merely that you were unfamiliar with the particular details of the land holdings of the Southern Pacific Railroad Company?

A. Yes sir.

Q. But in the broad sense you were quite familiar with the entire subject, were you not?

A. I had pretty good information as to land grant systems in general. They differed, of course, but the idea was to evolve for this coast one as nearly as possible a uniform system.

Q. In fact you had informed yourself as fully as possible in order to undertake this plan of reorganization?

A. I was informing myself at the time. There were three grants here to be overhauled, and it was a very large contract.

Q. That is, the Central Pacific, Southern Pacific Railroad and the Oregon?

A. Oregon and California.

Q. And your intention, when you first arrived, and until Mr. Kruttschnitt requested you to take over this other work, was to be devoted entirely to that line or plan of reorganization?

A. Yes sir.

Q. In doing that did you have access to the company's various offices, all of them?

A. Yes.

Q. You came here with authority to look into any details in any of those offices you could get or wanted?

A. Call for any information. That was my understanding.

Q. And did you have a force assisting you?

A. No, I had not at that time. [875]

Q. That is, it was individual work chiefly?

A. The general plan was, by interviews with the land offices, to discover and call for different things. One thing was to find their method of doing business. Mr. Kruttschnitt or Mr. Harriman was anxious to have a uniform system and make a consolidation. That was the object of it.

Q. And your purpose in coming here was to acquire a sufficient knowledge of the details so as to recommend a method of consolidation, was it not?

A. To try to consolidate.

Q. Now, in doing that work, prior to the time Mr.

Kruttschnitt requested you to take over the Southern Pacific Railroad Company's grants, did you make any investigation as to the amount of land that was available for selection in any of the grants?

A. I called, I think, for information to show what the general condition of the land was as to patent and other items.

Q. And did you make any examination or investigation during that period prior to August, 1903, with reference to indemnity lands?

A. I don't remember; but I presume I did endeavor to inform myself as to the grant of lands that were lost and the amount of the indemnity lands that were available.

Q. Now, was there any limit to the indemnity lands that were available at that time?

A. Now, as to that I am speaking from recollection. I have nothing before me or at hand by which I can tell.

Q. In a general way, I mean.

A. There was a distinction between the main line and what was known as the branch line grant. The main line grant, as I remember it, had about 50,000 acres of base land, that is, main line lands lost, for which no indemnity had been selected. [876] That is my recollection, and I don't think that there was enough surveyed indemnity unselected at that time to indemnify the road for the loss.

Q. Well, was it not also a fact you discovered in your investigation, that considerable portions of this

indemnity land that could be selected had been located and selected by individuals, so that it was lost to the company?

A. I remember, now that you call my attention to it, I think there was something like 150 cases where indemnity had been settled upon by unauthorized people, as the railroad supposed, the railroad relying upon the terms of its grant, on the understanding that the indemnity was theirs until it was selected, that the indemnity was set aside to the railroad company the same as the grant; but the Secretary of the Interior held the contrary to that contention.

Q. Do you remember when that holding was made, generally?

A. It was before I came here. The reason I remember that now is I have a recollection, about the time you refer to, Judge Singer calling my attention to a record which was in his office. It was a book in which was set down the names and the condition to the titles of about 150 cases, as I remember, where it had been attempted to eject those people by process under the laws of California by reason of their being on indemnity land, the attempt being made by the railroad company to select indemnity, and they were defeated by this decision I speak of in those cases.

Q. So that, by reason of that decision, there was lost, from the railroad standpoint, a very considerable amount of indemnity land?

A. Yes sir. It was a very burdensome decision, and an unjust one it has always seemed to me.

Q, And that also gave you the impression at that time, did [877] it not, that there would be danger of losing further indemnity land in the future?

A. Yes sir.

Q. Now, when you assumed the duties of your office as acting land agent—which you say was some time about the first of August, was it, in 1903?

A. To be exact, I think it was the 12th.

Q. That is, you took over the actual work of the office before this resolution of the company was adopted?

A. Yes; about a month before.

Q. Now, at that time did you have in mind the possible loss of this indemnity land?

A. Yes sir.

Q. And was that one of the matters to which you directed your immediate attention?

A. Yes; I think it was one of the first things I paid attention to.

Q. And was not that your main reason for directing Mr. Stone to make up this list No. 89?

A. My recollection of that whole situation was that my object here, as I supposed when I came out, was the same as it was on the Union Pacific. I reorganized that land grant and put it in shape to sell and did sell it; sold it out very rapidly. But when I came onto the Southern Pacific I found a condition that was entirely foreign to anything that I had

known of before that time or had even supposed were possible. I refer now to some—well, five or six, perhaps, suits brought by the United States on different grounds involving, in two or three cases, overlaps between the old Atlantic and Pacific grant and that of the Southern Pacific, the main line and the branch line, which was a very complicated condition; and I found that by far the larger part of the available lands [878] or lands which might come into market were tied up in those suits, so that the lands that might be available for selling purposes were very few indeed. There was a large amount of land subject to defaulted contracts, and they could only be recovered and made salable by appropriate proceedings, such as foreclosure, as I take it; for, as I was advised, I think by Judge Singer, that after four years default all we could do under our contract was regular foreclosure. That being the case, my recollection in this case is that the lands through this section, and including these lands in these townships which are covered by that selection list 89, had been only a short time before surveyed, and they became selectable, and it was my plan to select promptly so as to save everything that was possible to the company.

Q. It is a fact, is it not, that part of the survey of this Township 30-23 was filed in the local Land Office at Visalia in the month of May, 1903, just before you came here?

A. My impression was it was some time in the spring. I know I could not understand why they

hadn't selected it at once. It was always the plan in the department in my time to immediately get after indemnity as soon as there was a survey made.

Q. And having that in mind you directed the immediate preparation of this list, did you not?

A. Yes sir, I did.

Q. And you directed Mr. Stone to prepare it?

A. Yes sir. Mr. Stone was familiar with all the details.

Q. And did you, in connection with that, make any inquiries of him as to the character of the land?

A. Just a general inquiry, when I made the affidavit, as to whether there was any of it mineral.

Q. And he informed you he had been over the very ground[879] in question, did he not?

A. I believe so. It was my understanding that he was familiar with the ground, and that they were not mineral.

Q. Mr. Stone had been a land grader, had he not, for the company?

A. Yes sir.

Q. A land examiner?

A. He had been the examiner for a number of years.

Q. Up to the time you made him your assistant he was a land grader, was he not?

A. Yes sir.

Q. So that, when you signed the affidavits which were attached to this application, you did so in good faith and believed fully that they were stating the absolute truth, did you not?

Q. And you had no information or intimation

A. I think so.

from any other source to the contrary?

A. I think not.

Q. Now, the first affidavit to which you swore in this matter was signed some time in the fall of 1903, was it not?

A. My impression is that it was earlier than that. I think it was in the latter part of August.

Q. Well, you signed an affidavit, which is in evidence, on August 31, 1904, to rearrange list 89?

A. Oh, that is a matter that had entirely slipped my mind until brought up here in the hearing. I don't have any recollection much about that rearrangement. The only thing I do recollect is the return of the original list after it was filed.

Q. This may refresh your recollection: Did you not sign the original affidavit on November 7, 1903? [880]

A. Now, I could not swear as to the date. I would think that it was earlier than that; but if that is the date on the document that must be the correct date.

Q. Now, after you had prepared selection list No. 89, as you have described, what was done with the list by the local land office at Visalia when you sent it down there?

A. It was returned.

Q. Why was it returned?

A. With the information that a general withdrawal—a suspension order, I think they called it,—

covered all the unappropriated land in Township 30-23 and a number of others, I think six or seven townships. It was a blanket withdrawal of everything, because—I didn't understand it was because of any discovered mineral, but because of the mineral excitement, probably, in the neighborhood in there somewhere in that part of the country.

Q. That is, did that order, when you learned of it, convey to your mind any belief that this was actually mineral land?

A. No; it did not. I talked with Mr. Stone; I don't know whether anybody else; and from my talk with Mr. Stone and the extent of that withdrawal the impression on my mind was that it was just one of those things, a sort of drag-net affair and there might or might not be mineral in any of that territory. There had been none found, so far as I know.

Q. That is, your understanding was that there was a very broad withdrawal and included good, bad and indifferent?

A. Yes. It was one of those hastily done things that didn't mean that the land was mineral. It only meant to tie it up so as to prevent any form of disposition until I don't know what. I don't know that the government as early as that went to the trouble of making any such investigations as they make now. I am inclined to think not. [881]

Q. Now, after the application was rejected by the Visalia Land Office on the ground of this withdrawal what was done with it?

A. Why, it came back to the office, and my impression being that it was probably something that required only action by the government to release, or release in part, I made application to the Secretary of the Interior, through our representative in Washington, to have a representative of the Department make an examination of these lands covered by our list.

Q. By Mr. Mills—Was that in writing?

A. Well, my letters were to Mr. Chambers.

Mr. Mills—We shall object to any of that unless the original is produced.

Q. By Mr. Lewers—You may proceed.

A. Well, the fact is that through Mr. Chambers I succeeded in having a man detailed to make that examination.

Q. Do you know who that man was?

A. His name was Ryan. That is my recollection. I never saw him, never had any communication with him; but he was sent into the field and did make an examination and reported. My request was that the government make such an examination as to determine which of the lands we had selected were mineral and that as to the rest we should be allowed to select. And the representative made the examination and reported that none of the land—

Mr. Mills—I interpose the formal objection to the statement "he reported"—(to the witness) unless you know. Have you seen the report yourself?

The Witness—No.

Mr. Mills—And unless the report itself is produced.

Q. By Mr. Lewers—Well, so far as influencing your action in the matter is concerned, Mr. Eberlein, what influence did you [882] receive from the report that was made by this government man?

Mr. Mills—We object to that as so indefinite and vague as to be wholly objectionable.

A. The impression conveyed to me was, and I found the fact to be, that the suspension order was revoked, at least as to these lands of ours, and we made the selection and the selection list was approved.

Q. By Mr. Lewers—Now, was the action of the particular inspector who went upon the ground in any way influenced or controlled by you?

A. Not at all.

Q. Or by anyone in your office to your knowledge?

A. No; not to my knowledge nor to my belief. I don't think anyone did.

Q. Or was his action directed, so far as you know or ever heard of, by anyone in connection with the railroad?

A. No sir, not that I eyer heard of.

Q. You were informed, were you not, by the representative of the railroad company in Washington, Mr. Chambers, of the result of this examination?

A. Yes sir, and also, I think, checked that information by the land officers at Visalia.

Q. And there received information as to the letters that had been sent by the Commissioner of the General Land Office cancelling the withdrawal order?

A. Yes sir.

Mr. Mills—We object to that and move it to be stricken out, and all such evidence as that, unless the original reports are introduced.

Mr. Lewers—We will see that they are introduced in due time, Mr. Mills.

Q. Then it is a fact, as you understood it at that time, [883] that the government itself examined and investigated this particular land?

A. Yes sir. I felt that they backed up the non-mineral character of that land entirely.

Q. And for that reason you went ahead with the application, did you not?

A. Yes sir.

Q. And you had no other suspicion or doubt in your mind as to the good faith of the entire matter, did you?

A. No sir, none at all.

Q. Now, on August 31st, according to the exhibit—I will show it to you so there will be no misapprehension. I show you Plaintiff's Exhibit G, and call your attention to the affidavits attached to that, that purporting to be a portion—photographic copy of a portion of list 89. That is your signature, is it not?

A. Yes sir; a photographic copy of it.

Q. And, turning to the next to the last page, that is also your signature?

A. Yes sir.

Q. Sworn to before Mr. E. T. Ryan, was it not?

A. Yes sir.

Q. And it was in fact sworn to before him?

A. It was.

Q. Now, at the time you made that affidavit to the rearranged list, you did so in good faith, did you not?

A. I did.

Q. And honestly and fully believed that it stated the facts?

A. I did.

Q. You had at that time received no information which led you— **[884]**

Mr. Mills—I object to the form of the question.

Q. By Mr. Lewers—to a contrary belief, had you?

A. No sir.

Q. Now, when was it, if you recollect, Mr. Eberlien, that you first met Mr. Dumble personally, can you fix it by anything?

A. I have tried that; I have tried to recall. I don't recollect having seen Mr. Dumble until the day that I first heard about the Kern Trading and Oil Company.

Q. I call your attention to the letter of October 7, 1904, from you to Mr. Dumble, which has been introduced in evidence, No. OO, and ask you if that letter serves to refresh your recollection in any way as to when you first met Mr. Dumble personally?

A. Well, it was before that, I am very sure, but I have a kind of an idea that it was early in 1904. I cannot now remember of Mr. Dumble having an office in that building. This undoubtedly refers to the old Wells-Fargo Building before the fire.

Q. That is, when you refer to meeting him at room 71, you are referring to the room which you then occupied?

A. That is my recollection. That 71 was the Southern Pacific Land Office.

Q. Now, you say you think you had met him before that time. Had you had any discussion with him prior to that time about any of these matters that have been testified to?

A. I have no recollection. Mr. Dumble was, as I remember it, a Texas man, and his headquarters were at Houston, and I think that he was not in San Francisco such a great time. If he was I didn't know it. But at all events I had very little knowledge of Mr. Dumble for some time after—maybe in 1904, in the middle of the year we may have had something to do [885] with one another; but before that time I have practically no recollection of Mr. Dumble or Mr. Dumble's business.

Q. Was there any co-operation between your office and his office?

A. No; unfortunately not.

Q. And did his office in any way make reports to your office—at that time, I mean?

A. Not at that time, I don't think. In 1905, some

time during the year 1905, I think that Mr. Dumble's office then was organized. He had an office in the Merchants Exchange Building, and I think his field force looked after the collection of royalty oil on a lot of our Southern Pacific oil leases.

Q. By Mr. Mills—Southern Pacific Railroad Company do you mean?

A. The railroad company had a number of leases on royalty basis, and I think he looked after that and made reports as to that, but nothing else that I remember of.

Q. What time was that? Can you fix the date?

A. I can't fix that date; in the spring or summer.

Q. What year?

A. 1905. It was before the fire.

Q. By Mr. Lewers—That is, it was just the year before the fire?

A. Yes sir.

Q. And that was the first connection between Mr. Dumble's office and your office, was it?

A. I think anything like a business connection. I don't remember of anything else.

Q. Under the resolution which made you the acting land agent of the Southern Pacific Railroad Company, and under the instructions which you received from Judge Cornish and Mr. [886] Kruttschnitt, you in no way considered Mr. Dumble as having any right of exercise of authority over your office, had you?

A. I had not.

Q. And you regarded yourself as the person solely in charge on the Pacific Coast, did you not?

A. I did.

Q. And you were able to look after your own affairs, were you not?

A. Ask the other boys. I don't know.

Q. That is, you endeavored to do so?

A. Yes sir. Oh, yes; I felt I would be responsible and so usually insisted on doing the thing in my own way.

Q. Now, did anything come in any shape, prior to the time when you signed this second affidavit in August, 1904, to lead you to believe that this land was actually mineral land—referring to your own personal belief in the matter?

A. No sir.

Q. Did you ever receive any information that this land in 30-23 was mineral land?

A. No sir; I never have.

Q. And the only circumstance that seemed to you to require consideration was the execution or attempted execution of this lease, was it not?

Mr. Mills—I object to that question, and all other questions in that form. If you want to testify, take the stand.

A. I have testified in that matter, and considered it a very impolitic thing to do at that time and I remember now to have had no impression of the mineral character of that land; but it did decidedly convey the impression to my mind, and also to that

of Judge Cornish, that it was a wholly improper proceeding for me to take under the circumstances.

Q. By Mr. Lewers—That is, you had the impression that it [887] didn't look right?

A. I had the impression—now, not reflecting on the other gentleman, but so long as I had made a non-mineral affidavit here as to lands that lay alongside and in and among these lands—I had the impression that to make a lease of lands such as was attempted to be made was pretty sure under the circumstances to make trouble and raise a presumption.

Q. That is, did it mean to you—the existence of this lease—that the lands were actually mineral?

A. No; no. It did not.

Q. Did you anticipate that as the result of the execution of that lease speculators might get in and make locations?

A. Undoubtedly they would—among other things. The other thing was that the government would undoubtedly have its atttention directed at once by the activities of these same oil speculators to the fact as it existed and bring about the question of my good faith when I made that affidavit.

Q. What you anticipated at that time was this, was it not, that the existence of that oil lease becoming known would cause people to go in there and locate as speculators and in that indirectly bring about possibility of difficulty with the government?

A. Undoubtedly they would.

Q. Irrespective of whether or not the land contained oil?

A. Well, I don't remember of thinking that, but undoubtedly that is the case.

Q. Do you know whether or not Mr. C. H. Markham held any position in the Southern Pacific Railroad Company in 1904?

A. I believe he was the vice-president; though as to that I am not sure.

Q. That is, you have no definite knowledge whether he was or not? **[888]**

A. No sir; I can't say now definitely.

Q. He was the ranking official in 1904 on the Pacific Coast of the Southern Pacific Railroad, was he not?

A. Yes sir; after the withdrawal of Mr. Kruttschnitt to Chicago.

Q. Yes; that is, I mean after Mr. Kruttschnitt went to Chicago?—

A. Yes sir.

Q. Mr. Markham became general manager?

A. Mr. Markham became general manager.

Q. And he was succeeded for a short period by Mr. Bancroft, was he not?

A. Yes; a short time.

Q. He filled in the interim until Mr. Calvin came in?

A. That is true.

Q. Now, when was it if you can fix the time that you first learned from the auditor's office or from any

other source that this lease which you had refused to sign was being acted upon?

A. My recollection is that as near as I can fix it in my mind from a good deal of thought it was in the fall of 1904. It was before I had the talk with Judge Cornish, at least.

Q. And it was before the date when the patent was received to this land, was it not?

A. Yes sir.

Q. Now, during the period between August 2nd, when this lease was signed by Mr. Markham, and the time when the patent was granted, you had a number of conversations, did you not, with Mr. Markham about the matter?

A. Yes; we had a great many talks.

Q. Mr. Markham endeavored, did he not, to persuade you to sign that paper? [889]

A. Yes, he did.

Q. He got rather strenuous once in awhile, didn't he?

A. Yes, he did. We didn't disagree outside, but we did about land management.

Q. That is, in connection with that matter you didn't agree, did you?

A. We didn't agree, no; unfortunately.

Q. And Mr. Markham expressed his views quite strongly and you did the same, did you not?

A. Yes, I did.

Q. Mr. Markham was pretty insistent that you should sign this lease, was he not?

A. Yes; he did not see why I should not do it, and, as he told me, he considered that he was in charge of affairs generally here on the coast and proposed to manage land affairs, too.

Q. And you didn't believe from your appointment he had authority to do that, did you?

A. No; I didn't, when I was being pulled on the other hand and told that I was to report there. It came to a show-down once or twice.

Q. Now, in your discussions with Mr. Markham about this, did you reiterate any of the other portions which were contained in the letters which you wrote?

A. Yes, we talked those matters over.

Q. And notwithstanding that he still insisted upon the lease being executed, did he not?

A. Well, my recollection now is that Mr. Markham was insistent about the execution of that lease; kept it up, and letters kept coming in asking for it. And you remember Mr. Markham was not there such a long time. He left in the fall, I think, of the same year. [890]

Q. That was when Mr. Bancroft came in?

A. Yes sir. Mr. Markham resigned there quite suddenly to the surprise of everybody and left immediately for Texas. I remember going out with him on the train to Los Angeles, having a long talk with him on the way down.

Q. Where is Mr. Markham now?

A. He is president of the Illinois-Central, with headquarters at Chicago.

Q. Now, did you have any discussion—I mean oral discussion and not by letter—with any other official of the Southern Pacific Company or the Southern Pacific Railroad Company with reference to the execution of this lease?

A. Yes; as I have already testified to, quite an extended discussion with Judge Cornish about it.

Q. Well, did you have any discussion with any other official in New York?

A. Yes, that think was discussed with Mr. Harriman.

Q. And was it discussed with Judge Lovett?

A. Yes sir.

Q. When was the discussion held with Judge Lovett?

A. Well, there was more than one discussion with Judge Lovett. One time I remember discussing it with Judge Lovett and Judge Cornish. As to just what year that was I can't recall, but it was probably since the fire.

Q. Was it not in the month of May, 1908, just before you went to New York?

A. No; that was the time that Judge Lovett, Mr. Cornish, Mr. Harriman and myself had a discussion about a great many things, and this among others.

Q. Then you had had another discussion in which Judge Lovett took part prior to 1908?

A. Yes; oh, yes. **[891]**

Q. Have you any way of fixing the time when that occurred?

A. I can't think of anything now that would fix it; but, as I say, I believe it was in—Oh, I don't know. It was somewhere around about the time of the fire, either soon before or not long afterwards.

Q. Were you in San Francisco at the time of the fire?

A. Yes sir.

Q. And had you been in New York immediately before that?

A. Now, let's see. Yes; those dates are clear, because of some other matters. I left here on the 28th of December, 1905, and I arrived here just three weeks before the fire. I fix those dates because I was sick with pneumonia most of that time and was in the south; some time in February, I believe, I was in Los Angeles, and afterwards in Yuma and came from Yuma right here, and was sick here and confined to the hotel until just three days before the fire. I happen to fix those dates very certainly.

Q. Now, how soon after the fire, if you have any way of fixing it approximately was it that you went to New York again?

A. I went in May.

Q. Went in May?

A. And I came back in September.

Q. Now, it is your impression that this conversation with Judge Lovett was held on one of those two occasions, either before or after the fire?

A. I think so. It was somewhere in that neighborhood I am pretty sure, though I can't exactly fix it.

Whereupon the further taking of testimony herein was adjourned until Tuesday, July 2, 1912, at 10 o'clock A. M. [892]

On Tuesday, July 2, 1912, at 10 o'clock A. M., the further taking of testimony herein was resumed.

CROSS-EXAMINATION
OF
CHARLES W. EBERLEIN

resumed.

By Mr. Lewers:

Q. Mr. Eberlein, you have had an opportunity, have you not, to read over the testimony which you gave in Los Angeles, to refresh your recollection?

A. Yes sir.

Q. And have you a copy of that testimony before you this morning?

A. I have it here; yes sir.

Q. Referring to the opening part of your testimony, on page 1724 of the transcript, you were asked with reference to the resolution of the board of directors of the Southern Pacific Railroad Company appointing you as acting land agent, and replied to the question that you had not seen that document for years, that you had forgotten all about it. Do you know where that document was kept after the fire?

A. No. It must have been kept in the safe where such papers were kept.

Q. Was that one of the documents which you had in that private file?

A. It may have been. I can scarcely account for

its condition otherwise. If it hadn't been it would have probably been entirely destroyed.

Q. Well, was that one of the documents which you produced under the subpoena that was served upon you?

A. No sir.

Q. Do you know who did produce that document?

[893]

A. I do not.

Q. That is, it was not produced by you?

A. Not by me.

Q. And you have no knowledge of how the government obtained possession of that particular document?

A. Absolutely none.

Mr. Mills—I want to interpose an objection here of record, that, in view of the hostility of this witness towards the government, and his very evident bias and interest on behalf of the defendants, I shall hereafter insist emphatically that the common rule of permitting leading questions upon cross-examination is, and of right ought to be, reversed in this case and this man treated as an adversary and hostile witness; and I shall insist upon the right to cross-examine this witness at length, because, in view of his relations to the Southern Pacific Railroad Company and of the corporate character and capacity in which that company is sued, this man might well be said to stand in the shoes of the defendant itself.

Mr. Lewers—The vehement outburst on the part

of counsel is nothing new. It seems to occur every time testimony is introduced which does not favor his particular contention, and is entirely in accord with the outbursts which have appeared from other counsel for the prosecution, including the Attorney-General of the United States. All that we desire in this case—and I will state this for the benefit of counsel for the government—is that the exact facts be brought out, without misrepresentation against this witness or against the defendant companies here, and I have a perfect right to examine this witness as to any matter that was brought out on direct examination. If counsel for the government has any good reason why they do not desire the facts concerning the production of documents that this witness did not produce brought out, I will [894] be very glad to hear those reasons; but in the meantime I shall pursue the inquiry along the lines indicated.

Mr. Mills—I want to say to you for your own benefit that we will bring out everything that we think will be of advantage for the government and everything we believe is of advantage to the Southern Pacific Company or the Southern Pacific Railroad Company. You have charged me, Mr. Lewers, once or twice in this case with unprofessional conduct in seizing papers, and I think you owe me an apology, for his conduct since has shown that the only way to get those papers was to put the witness under subpoena.

Mr. Lewers—I remember very distinctly that my objection was to your method of taking the docu-

ments out of the witness's possession and into your office, and insisted that you proceed at once to examine him about it, and you were unwilling to do so.

Mr. Mills—I could not very well proceed until we had examined the papers. They might not have any materiality at all in this case.

Mr. Lewers—I also call attention to the fact that on page 1724 of the record Mr. Mills stated that before the finish of the testimony in chief of Mr. Eberlein he would show—that is, Mr. Mills would—from whose custody the particular resolution had been produced; and that was not done.

Mr. Mills—Well, I intended to do that before I finished; but it was omitted by inadvertence. I thought perhaps you would want to cross-examine the witness anyway before I introduced any new documents. I don't intend to conceal anything.

Q. By Mr. Lewers—Now, I understand that the papers that referred to the Kern Trading and Oil lease matter were kept by you in a separate file?

A. Kept in my personal custody.

Q. And you began making this segregation into a separate [895] file at what time, as near as you can recollect?

A. Oh, I kept it from the first, from the time that attempted lease came into my possession.

Q. That was some time in August, 1904?

A. The original document on which everything is based came into my possession on I think the 2nd day of August, 1904.

Q. I believe you testified that on August 2nd you were present in Mr. Markham's office and saw him sign that lease?

A. That is true.

Q. At that time had you made an examination or checked over the list of lands contained in that lease?

A. No sir.

Q. And I understand that you left that day for Denver or Portland?

A. I left for Denver. That is fixed by the telegrams that passed.

Q. And how long, as nearly as you can recollect, was it before you returned to San Francisco?

A. The occasion of my going to Denver was the hearing before the Public Lands Commission appointed by the President, and I was sent there as the representative of the Southern Pacific Company. From there I went to Omaha, and I am not clear as to whether I went on to New York, but I think I did; and I didn't return until possibly the end of the month.

Q. Until about the end of August?

A. I think so. It must have been along about the end of the month.

Q. That is, you fix that, in a general way, by the correspondence subsequent to that time, do you not?

A. Yes; I think so. I won't be sure about that trip to New York. I cannot be sure about that. Possibly not. But I did go to Omaha, and possibly to St. Paul. I think that is true. [896]

Q. That, I presume, is your best recollection?

A. Well, I am giving you the best I can fix it.

Q. Have you any memoranda of your movements at that time?

A. No. Unfortunately all my diaries were destroyed.

Q. In the fire of 1906?

A. Yes.

Q. And after you returned to San Francisco did you see this proposed lease?

A. Yes sir.

Q. Where was it?

A. In my office.

Q. It had been sent to your office in your absence, by Mr. Markham, had it not?

A. Yes sir.

Q. Did you at that time make any examination of it?

A. Yes; I went into it pretty carefully.

Q. State generally just what you did?

A. I examined all the provisions and wrote Mr. Markham in detail my views on that lease—the propriety of it.

Q. Now, prior to that time, when you had made your selection list 89 in 1903, had you made any examination of the maps or plats of any kind to ascertain what indemnity lands were left for selection?

A. I think not. I don't think there were any maps or plats in the Southern Pacific office at that time,—nothing more, possibly, than the government

maps that we had. I don't recollect of any maps of the grant.

Q. Well, what method did you use to ascertain where indemnity lands were that hadn't been selected?

A. I don't remember at this time. I think, though, that the controlling cause at that time was the fact of a recent survey. [897]

Q. That is, you had been informed, had you, of the Duee survey having been made?

Mr. Mills—I object to the form of the question as leading and extremely suggestive.

A. Of what survey?

Q. By Mr. Lewers—The survey of Township 30-23.

A. There were surveys of several townships, as I recollect, and this must have been among them, in which the company was entitled to indemnity.

Q. Was your attention particularly directed in any way toward indemnity lands at that time?

A. Not particularly; except the general policy of getting indemnity as soon as you could.

Q. Now, who initiated that policy, that is, who formed that conclusion?

A. Well, that always was my conclusion and my policy in everything connected with any of these grants.

Q. Then the selection of these indemnity lands was part of your plan in protecting the interests of the company, was it?

Mr. Mills—I object to that question as extremely leading and suggestive.

A. Yes.

Q. By Mr. Lewers—And who ordered or directed that this selection be made, list 89?

Mr. McCormick—Objected to as having been asked and answered twice already.

A. I ordered the selection list be made.

Q. By Mr. Lewers—Was that done at the instigation of Mr. Stone?

A. "At the instigation?"

Q. Yes. **[898]**

A. No. I rather think I instigated Stone.

Q. Now, how long after you became acting land agent, as nearly as you can fix it, was it that you appointed Mr. Stone your assistant in the office?

A. I think he was appointed in the same month, August, 1903.

Q. And prior to that time he had been doing what?

A. I was told, I believe, he was the land examiner of the department.

Q. And how long did he continue to be your assistant?

A. I believe until the close of the year 1907.

Q. And while you were absent he signed correspondence and did various other routine acts in the office, did he not?

A. Not only routine acts, but he had to be the responsible head of the department in my absence.

Q. That is, to attend to all matters that you would attend to yourself?

A. Excepting such as were limited to me by appointment or by governmental regulations, such as signing of lists and things of that kind.

Q. You understood that you were the only person who had the authority to sign selection lists, did you?

A. Yes sir. I believe that is the fact.

Q. Now, what was the occasion of Mr. Stone leaving the service of the company?

A. Well, insubordination.

Q. In short, state how that came up?

A. Well, to explain: The facts in this case rest upon Mr. Stone's physical condition, largely. I think that is a fair explanation to him. Mr. Stone was—after the fire, showed signs of break-down; that is, he was very nervous. I gave him quite a long leave of absence, in the hope that he would be in [899] condition again, but he came back and didn't show any improvement, much, and he became incapacitated to handle the heavy work of the office. It must be remembered that at that time the department was under severe stress from all sides. We had no records; everything had to be made anew; our correspondence files were gone; even our very contracts for the sale of land that the company had was destroyed—utterly wiped out. Those contracts were executory contracts, executed in duplicate, one copy in the hand of the vendee outstanding. Neither copy was on record except in a very few instances; and we were

in a pretty serious predicament. The work of handling all the detail of the office and at the same time bringing up records that had to be gathered from all quarters, was too much for Mr. Stone; he could not stand it; and he got so far behind that it became necessary for me to do something. Having in mind his long service with the company, I didn't want to do anything to hurt Mr. Stone in any way; so I divided the work, appointed another assistant, giving him a younger man and one better qualified to handle that class of work, charge over the office. And as all our gradings and examinations of land that had been collecting ever since the department was established had also been wiped out, there was the necessity of a very great deal of work to do in the field and it was time that it had to be taken up. There was enough there for two assistants to do. So I appointed Mr. Stone to organize a department of his own, with his own subordinates, his own field men, to take full charge of that, map the work out and prosecute it. His office was next to mine, and he was entire master of his own movements. He had the same salary and the same title. That didn't seem to suit Mr. Stone at all, though he didn't make any particular objection to it, as I remember it. I was called to New York; and at the same time the city of Los Angeles was exceedingly [900] anxious to get a right of way for the new viaduct across certain granted lands and indemnity lands of the company. It became necessary to examine those lands in order to make some selection lists; some surveys had to be made. It was an urgent

matter and one which we felt was not only right but good policy for the road to do everything it could to forward the work for the city of Los Angeles. I asked Mr. Stone to take particular charge of that and see that that work was done just as soon as possible and I thought he had better go down there and start it, keep his hand on it and get it done just as quickly as possible. I was east during all the time. He went away. Mr. Stone, it seems, took exactly the—placed an entirely wrong construction on everything; went into the field himself and stayed down there, and came back, and I found out after several weeks that he hadn't been to the office at all. I wrote to him about it, asked for a report; and then he said that the work I had put upon him was too severe, that he could not stand it. I wrote him calling his attention to the terms of his appointment; they need not be any more severe than the work he was doing—probably would not be so severe. But he was in that frame of mind that he didn't intend to co-operate at all, so I had nothing to do but give him his time and tell him to hunt other employment. I gave him, I think, a month in which to place himself somewhere else. It may have been longer; I don't know. That is the whole story of Mr. Stone's leaving the department.

Q. And what was Mr. Stone's attitude toward you after the last occurrence when you told him to hunt other work?

A. Well, I am advised it was pretty hostile.

Mr. Mills—I move that that answer be stricken, as purely hearsay.

Q. By Mr. Lewers—Did you have any personal interview [901] with him yourself after that time?

A. No sir.

Q. When was that?

A. In November, 1907, my last letter was written to him, the letter in which I told him to hunt for other employment.

Q. Did you receive any letters from him?

A. I think I received two communications.

Q. Do you know where those are?

A. Yes.

Q. You have them?

A. Yes.

Q. Have you them with you?

A. I think Mr. Mills has those letters.

Mr. Lewers—Have you them, Mr. Mills?

Mr. Mills—Yes. I will get them. Do you want them now?

Mr. Lewers—If you please. (Letters produced and handed to counsel for defendants.)

Q. I show you a letter dated December 5, 1907. Is that one of the letters you referred to as receiving from Mr. Stone?

A. Yes sir.

Q. And I show you another letter dated February 14, 1908. Is that the other letter?

A. That is the other letter.

Mr. Lewers—We offer both of these in evidence, together with the envelops.

Mr. Mills—No objection at all.

Mr. Lewers—I will read the letter of December 5, 1907, into the record: "Oakland, December 5, 1907. Mr. Charles W. Eberlein, Care Hon. W. D. Cornish, 120 Broadway, New York. Dear Sir: In reply to your letter of November 30th I have just sent the following telegram: "Your letter November thirtieth received. Work outlined therein very different from that called **[902]** for by the previous telegrams and letters and can be undertaken with pleasure if you so desire and direct. Yours truly, Geo. A. Stone."

The letter last referred to and offered in evidence is marked "Defendants' Exhibit 2—L. L."

Mr. Lewers—The second letter, of February 14, 1908, reads as follows: "2535-A Channing Way, Berkeley, California. February 14, 1908. Mr. Charles W. Eberlein, Acting Land Agent S. P. R. R. Co., James Flood Building, San Francisco, Cal. Dear Sir: Will you kindly advise me whether the company is willing in any way to show its appreciation of my faithful service of over thirty-five years. If the company has no further use for my services, as would appear from recent correspondence with yourself and other officials, it seems to me that as I have nearly doubled the length of service required for retirement I may properly be placed on the shelf with disabled and superannuated veterans. Thanking you in advance for your kindly offices in my behalf, I remain, Yours truly, George A. Stone."

The letter last referred to and offered in evidence is marked "Defendants' Exhibit 3—L. L."

Q. Did Mr. Stone write you any other letters during that period that you can recollect?

A. I believe not.

Q. And did he ever write you a letter or tell you personally that he was going to make complaint to the government about any matter that occurred in the office?

A. No sir, I have no recollection of his ever saying any- [903] thing to me.

Q. Did you ever have it brought to your attention in any way that he had made such a statement, prior to the time he testified in this case?

A. Yes sir.

Q. When?

A. In New York, at about the time, I think, that that last letter came to me, he wrote a letter to Mr. Kruttschnitt which was very peremptory in tone and in which he threatened that unless something was done for him, either reinstatement or pensioning, that he would immediately lay before the United States government, the Department of Justice, I think he said, and the press certain facts in his possession.

Q. Did he say what they were?

A. No. It was a very brief letter. That letter was referred to me in New York by Judge Cornish.

Q. Was any answer made to it?

A. Not that I know of. I had these letters at that time, I believe. I showed them to Judge Cornish and we did not consider them important.

Q. And so nothing was done?

A. Nothing was done.

Q. Now, in connection with the selection of list No. 89, was there any unusual haste in the preparation of that list?

A. Not that I know of.

Mr. Mills—If you know.

Mr. Lewers—I am assuming he will only testify what he knows.

Mr. Mills—I am assuming you are doing the testifying most of the time.

A. No.

Q. By Mr. Lewers—What was the fact, so far as you [904] recollect, about the manner in which that list was made up?

A. I have very little recollection about it, to tell you the truth. I became left with the responsibility of that office. I took possession of it August 12th. I did it under protest, because of its interference with my other duties and the what I was afraid would be very great embarrassment to me, which is exactly what happened. It became necessary to make an entire reorganization of that department. The books and records also were in a very confused condition. I had to get an entire new set of clerks, for one thing, and my time was completely taken up with all those administrative details. My recollection is that I tried to keep up these other matters at the same time, and instructed Mr. Stone to make up a list selecting indemnity in the recently surveyed lands.

Q. Now, how soon after you took charge of the office did you direct this list to be prepared?

A. I think it was very shortly after. I can't give you dates.

Q. I mean approximately?

A. Oh, I think it was in that month, in the middle of the month, probably.

Q. Of August?

A. Yes sir.

Q. And the other work was carried on that you have outlined during the same month, was it?

A. Oh, yes.

Q. Now, referring to page 1733 of the transcript of your testimony at Los Angeles, you were asked concerning your knowledge of Mr. Dumble, and the following question was asked of you: "Well, as geologist of the Southern Pacific Company did he have anything to do with the lands of the Southern Pacific Railroad Company? A—No sir. Q—That is, officially, you say? **[905]** A—No sir; he had none that I know of. Q—But he did attempt, did he not, to have something to do with the lands of the Southern Pacific Railroad Company? A—Oh, he butted in frequently." Now, when was it that Mr. Dumble began to butt in?

A. Well, since I have testified, I tried to find, in my own mind, when I first met Mr. Dumble—came into collision with him, so to speak. I have no recollection of Mr. Dumble in the year 1903. I don't recollect that he even had an office. I don't think he was

in San Francisco much at that time. I may have heard of him, probably did, but I don't think I met him. The nearest I can fix anything was in the year 1904, when I presume the Kern Trading and Oil Company was in process of formation. He was in San Francisco a good deal at that time. I fix something by a letter there written to him by me, which refers to that room 71.

Q. The letter of October?

A. That is in October. Well, I probably knew him for some months before that. How many, I can't now tell. Anyhow we had very little to do with one another—so little that there is nothing that fixes it in my mind.

Q. When you used the expression that he "butted in" frequently, what period of time did you have in mind?

A. Well, subsequent to that time of which I am testifying now. I don't remember of his having anything to do with me before that time.

Q. Then it was subsequent to some time in 1904?

A. Yes; I think so.

Q. And after 1904 you saw more of Mr. Dumble than you had before, did you not?

A. Oh, yes. He had an office in the building. Especially after we moved to the Merchants Exchange Building.

Q. Now, on August 2nd, 1904,—I am referring to page [906] 1735 of the record—you received a letter from Mr. Markham enclosing the proposed lease

which has been introduced here in evidence, did you not?

A. Yes.

Q. That is, you received about that time a letter of that date. Do you know whether you received it the day it was written or not?

A. I judge not from the fact that Mr. Stone wired me in Denver that it had been received. I left the city that afternoon or evening. The letter being written on the 2nd was probably not received until the 3rd.

Q. That is, from the fact that Mr. Stone acknowledged this and notified you—

A. By wire.

Q. —you assume the letter was received after you left?

A. Yes sir.

Q. And you received a telegram in Denver from Mr. Stone, did you not?

A. Yes sir.

Q. Which is dated August 4, 1904?

A. Yes.

Q. And in reply to that telegram you wrote Mr. Stone on the same day, August 4, 1904, directing him to hold the Kern Trading and Oil lease until you returned, did you not?

A. Yes sir.

Q. And in that you stated "that there were no lands for sale at present and no oil lands for sale at any price. Do as told without reference to me"?

A. Yes.

Q. What had you told him to do that you referred to there?

A. I referred there to Mr. Stone's peculiarity of sending me when I was away notice of every little thing that transpired. **[907]** Now, the orders were that the lands were not for sale. There was a great deal of demand and especially a great many people running in to buy what they supposed was oil land, or what was known to be oil land. I wanted to head him off from sending me applications of people and saying that this man, that man and the other man had been in, and asking for instructions. I wanted to give him general instructions on it and head off any of that. He could say just as well as I could. There was no necessity for it being brought to my attention.

Q. By Mr. Mills—That is to say, he had the same powers, you mean, that you had at that time?

Mr. Lewers—Well, I prefer that you would not interrupt my examination, Mr. Mills.

Q. Your direction to Mr. Stone was to look after these matters in your absence in accordance with the instructions you had given?

A. Yes sir.

Q. Without bothering you, while you were away, with the details?

A. Yes.

Q. Now, you say it is your recollection that you

returned probably about the end of the month of August?

A. I think so.

Q. Referring to the letter of Mr. Markham, of September 5, 1904, page 1743, do you remember whether that letter was received by you?

A. I think it was received while I was in the office.

Q. And did you make any reply to that particular letter?

A. I think I did.

Q. Is your letter of September 10th to Mr. Markham a reply to the letter of September 5th that I have referred to?

A. I believe it is. **[908]**

Q. That is, in your letter of September 10th to Mr. Markham, which appears at page 1748. You say, "I have your letter of September 5th, in regard to the lease," and so forth. In saying that you were referring, were you not, to that letter of September 5th which is in evidence?

A. I believe that is the letter I replied to.

Q. Now, you say in that letter, in the second paragraph, that you have gone over the matter with some thoroughness, and beg to report that the instrument is not in condition for execution. Now, what examination had you made at that time of the lease?

A. For one thing, I had had the lands checked up with our records.

Q. For what purpose?

A. To determine ownership. That is the first essential.

Q. Now, what had been the result of that checking?

A. As I believe is stated in this letter, there were some serious mistakes. For instance, there were lands included in that lease that were not in the ownership of the Southern Pacific Railroad Company, so far as I was advised—the record didn't show it—and some that were not within either granted or indemnity limits, and therefore entirely outside of the jurisdiction of the Land Officer. He could not make a lease on those lands.

Q. Have you any recollection of the amount of land that was not in the ownership of the Southern Pacific Railroad Company in that list?

A. No, I have not. I don't remember. And probably it was a scattered tract here and there; but the fact was that it was outside of the granted and indemnity limits and therefore outside of any lands over which I had any jurisdiction or could make any conveyance. **[909]**

Q. What I am getting at first is, was there any land, to your recollection, which was inside of the granted or indemnity limits but not owned by the Southern Pacific Railroad Company, in that list?

A. I don't remember as to that, unless it be in the case of the townsite of McKittrick. The townsite of McKittrick, as I remember it, was on a granted section. The company had platted the townsite of Mc-

Kittrick several years before, or a year or two before, perhaps, and I believe that they had disposed or deeded or otherwise disposed of certain lots in that townsite. Now, the effect of this lease in regard to that townsite was that they ignored the platted character of it. It was attempted to be conveyed in this lease by its government subdivision, ignoring the fact that it had been regularly and legally platted, and plats of record, and I believe certain lots, parcels of land, in it, had passed from the ownership, or at least the record title had passed from the railroad company, and therefore were not subject to any action by the Land officer at that time.

Q. That is then one of the things that you referred to when you spoke of the inclusion of lands not in the ownership of the Southern Pacific Railroad Company?

A. That is one of the things I had in mind.

Q. And you specifically referred to the townsite of McKittrick.

A. I think I did, yes.

Q. Which is in the next paragraph. Now, at the bottom of the first page you say, "There are several provisions of the lease itself which I think should be modified. As it stands the lease provides for the payment of a royalty of one-tenth of the gross product or one-tenth part of the gross amount of moneys received from the sales of minerals, substances and [910] products. The obvious construction of this clause is a permission to some one, not specified, to

sell the company's royalty without limitation as to who may do so or the price to be received, etc. That clause giving permission to the lessee to use our oil or dry asphaltum for fuel, etc., without payment of royalty thereon is in conflict with that provision which gives to the company one-tenth of the gross product. In my opinion the one-tenth royalty being a small royalty at the present time at least should not be subject to any deduction, and especially to a deduction of this kind which is indefinite." Now, was that in your mind at that time a serious objection to the lease from the standpoint of policy?

A. Yes sir.

Q. Why?

A. For just the reason stated. I could not take the responsibility of making that lease for the railroad company and assuming the responsibility myself with those clauses in, and especially with my entire ignorance of everything that pertained to this lease—its inception and every fact and circumstance connected with it. I knew nothing of it. I knew nothing of the necessities of the case, and therefore I was obliged, for my own protection if nothing else, to go on record here and call attention to what appeared to be on the face of things defects.

Q. Well, had you not at that time heard of the prior organization of the Kern Trading and Oil Company?

A. I think I had heard something of the Kern Trading and Oil Company, just the floating talk

around the building; but as to what that company was or what it was to do or who its officers were or anything about it, I didn't know. I think I reported to my chief to that effect.

Q. By Mr. Mills—Permit me to ask who was your chief that you reported to? **[911]**

A. W. D. Cornish, of New York.

Q. By Mr. Lewers—Were you in San Francisco during the month of November, 1903?

A. November, 1903? I may have, though I can't fix that. I was called to New York frequently, and especially early in my time in San Francisco I was called there in reference to matters that I had had charge of in Idaho and in the Union Pacific's territory and in the suit in Texas; so that I can't recall. I made a trip to Texas in that year of 1903. Now, just when that was I don't recall. I was in Portland that year; now, just what time that was—

Mr. Mills—I shall have to object to any further statement, as irresponsive to the question.

Mr. Lewers—I am trying to ascertain whether he was in San Francisco in November, and I think it is responsive.

Mr. Mills—I think he may say whether he was in San Francisco in November, but not in Texas in the early part of the year.

Mr. Lewers—The witness is endeavoring to fix the time. Proceed.

A. I am trying to fix that to the best of my ability. I can't say definitely whether I was there in

October or November for the reason of that trip that I took, I am very sure, in that year to San Antonio in closing up some matters which I had been making examinations in that year of 1903.

Q. Now, did you not hear of the organization of the Kern Trading and Oil Company some time in the fall of 1903?

Mr. Mills—Objected to as extremely leading.

A. I don't recall that, and I hardly think so. At least, it didn't become as important or as talked about until 1904, that I now recall. I may have known about it then; I may have heard something about it. **[912]**

Q. By Mr. Lewers—Well, did you hear any talk or see any correspondence of any kind with reference to transferring or leasing any lands to this company prior to August 2, 1904?

Mr. Mills—We object to that question as it manifestly calls for immaterial and irrelevant answers.

A. To the best of my recollection no. Lapse of time has a very great deal to do with things I have not charged my mind with; but that is my recollection at this time.

Q. By Mr. Lewers—Now, proceeding with the statements in that letter of September 10, 1904, you say, "The clause of the lease which provides for the payment of taxes upon improvements only is not in my opinion fair to the railroad company. By reason of the improvements the assessment on the land is largely increased. The company gets only one-tenth

of the products and pays a large part of it in taxes upon an exceedingly high valuation. Taxation upon improvements amounts to but little. The improvements are not of an expensive character and are subject to deterioration from the time they are made." Now, at that time did you regard that as a serious objection to the lease?

A. Yes sir; because I believe, as nearly as I could figure it out, that the Southern Pacific Railroad Company would not get a cent out of this.

Q. Out of the ten per cent?

A. No sir; and it would probably be on the other side of the ledger, by reason of this lease.

Q. Did you, at the time you wrote the letter of September 10th, have any information in your possession as to the lands which were actually producing oil?

A. Excepting certain lands that were producing oil upon which the company had negotiated development leases; and it is upon the experience with those leases, the amount of taxes we paid on those lands, the disparity between the amount of the taxation [913] of the land and that upon the improvement, is what I was basing my judgment upon as expressed in that letter.

Q. Now, where were these lands that you now refer to?

Mr. Mills—Let me interpose the objection for immateriality.

A. They were in the Kern River field, and I be-

lieve some in the Coalinga. I don't recall those anywhere else, but I believe in those two fields.

Q. Had you, at the time when you wrote this letter on September 10, 1904, any information in your possession as to the discovery of oil or any indications of oil anywhere near McKittrick?

A. I believe not.

Q. Now, you proceed in the letter and state as follows: "In addition to this there is a very urgent reason for delaying the execution of these papers. We have selected a large body of land interspersed with the lands sought to be conveyed by this lease and which we have represented as non-mineral in character. Should the existence of this lease become known, it would go a long way toward establishing the mineral character of the lands referred to and which are still unpatented. We could not successfully resist a mineral filing after we have practically established the mineral character of the land. I would suggest a delay at least until this matter of patent can be adjusted." Now, was it your understanding when you wrote that letter that the lands that you were applying for in list 89 were interspersed with the lands mentioned in the proposed lease?

A. I think the examination after putting them on paper, showed that maybe the word "interspersed" is not the right word to use. They occupied a position that was very close—adjacent, as I remember it, in many cases. [914]

Q. But what I am getting at, if you can recollect,

is whether, at the time when you wrote this letter, you understood that these lands were interspersed with the lands which are included in the lease?

A. I think so. I think that was my belief at the time I wrote the letter—at least, that they were in very dangerous proximity to one another.

Q. And when you say, "We could not successfully resist a mineral filing after we have practically established the mineral character of the land," did you understand that the execution of the lease itself would establish that there was mineral in the land?

A. No; I don't think that that would follow. It did establish in my mind, knowing, as I did, from pretty long and hard experience, that any fact of that kind would be seized upon by the government department and would be used against the—

Q. By Mr. Mills—What land department?

A. The United States General Land Office, and would be used against the Southern Pacific Railroad Company to deprive it of the land.

Q. By Mr. Lewers—Now, at the time when you wrote that letter, on September 10, 1904, were you aware that the government had made an examination of that land and found it non-mineral?

A. At what date?

Q. When you wrote this letter of September 10, 1904?

A. I believe that the Interior Department Examination was either completed or in progress at that time.

Q. Well, isn't it a fact that the withdrawal was cancelled in February of 1904?

A. That I can't testify to, because I don't remember the date. It probably was, but I don't thing it alters the fact as [915] set forth in that letter and the danger that would accrue.

Q. Well, what I am getting at is whether or not this examination by the government had not been completed prior to your writing this letter of September 10th?

A. It probably was; it probably was.

Q. Now, proceeding, you say, "I call your attention to the fact that this lease conveys oil lands and also assigns the existing oil leases. That being the case the management and control of oil matters will pass entirely from the land department. It seems a little singular that the company should assign oil leases which provide for the payment of royalties running from one-fifth to one-eighth, and now being paid to the company at that rate, and receive therefrom a decreased revenue without consideration, so far as disclosed by these papers." Now, was that, to your mind at that time, a serious objection?

A. If I had been the lessor, it would. But certainly it emphasizes the fact that I was entirely in the dark as to this whole proceeding, and the necessity, inasmuch as I was taking the responsibility, or expected to, of putting the thing squarely up to my superior officers, letting them judge, and if anything had been overlooked or anything had crept in here

inadvertently, that it might be corrected at that time.

Q. That is the reason you sent a copy of this letter to Judge Cornish, is it not?

A. Yes sir; I always informed him of everything that went on.

Q. And your experience, you say, with other individual leases in Kern River and Coalinga, had shown, even with their royalties and the payment of taxes, that there was no profit?

A. Very little profit, I think, in a great many cases. I won't say a great many, but in some cases that I had occasion to look into. The taxes are very high. Being railroad property **[916]** the railroad had to stand an exceedingly high valuation on its property. As I remember it, there was discrimination, and the railroad paid more taxes on the same character of propety than individuals on adjacent lands.

Q. Now, were you informed at that time by anybody as to what test had been applied in determining what land should be included in this lease to the Kern Trading and Oil Company?

A. No; I knew nothing about that that I know of.

Q. Were you informed by anybody as to whether only proven oil lands were included or whether they covered a large territory, good, bad and indifferent?

A. I don't recollect of having any information; and if I had any opinion at that time it was, probably, that they had taken in a whole countryside there in that lease. It looked like it, at least, when they got it on paper.

Q. Referring to page 1753 of the record, to the letter of Mr. Markham, of September 14, 1904, it states: "Referring to your letter of September 10th, relating to status of our oil leases, I see no objection to going ahead with the original program of assigning to the Kern Trading and Oil Company all oil leases now outstanding, but I shall want you to continue your connection with the leases until such time as questions now under consideration shall have been disposed of. I quite agree with you that as a condition precedent to the continuance of at least a majority of the defaulted leases we should require that all undeveloped territory be surrendered to the company, leaving only the tract actually being developed subject to the terms of the lease." Now, did you write any other letter to Mr. Markham on September 10th besides the letter which appears in the record to which I have been referring?

A. Well, it would seem so from that extract you have just read. I remember that discussion. [917]

Q. Well, did you have any oral discussion with Mr. Markham about the matter that is referred to in his letter of September 14th?

A. About that matter that you have just read?

Q. Yes.

A. It is possible. I was called to his office at frequent intervals, and usually these matters concerning oil leases were discussed. The matter under discussion in that letter simply refers to the fact that we had a number of oil leases which under my con-

struction, I was obliged to compel performance of. When I took possession, there were a number of leases, royalty leases as we called them, which were badly in default; people were not operating them at all; and I had to get after those people pretty strong to make them produce and pay the royalty or else cancel their leases. I thought, and Mr. Markham evidently agreed, that it was a pretty hard thing to go after men who had spent a great deal of money in putting down wells and who from one reason or another could not continue or were not at that time pumping, and with one stroke cancel all their rights and interests. That was very drastic. And the only way out of it that I suggested was to let them surrender such land as they could not develop—hadn't the money—and let the company lease that to somebody else, so as to get the production.

Mr. Mills—I must interpose another objection for immateriality.

Q. By Mr. Lewers—And you say that you and Mr. Markham had discussions concerning this matter in his office?

Mr. Mills—Object to that question as extremely leading.

A. Yes sir.

Q. By Mr. Lewers—And do you recollect at this time writing any other letter on September 10th to Mr. Markham be- **[918]** sides the one which has been introduced in evidence?

A. Inasmuch as this letter which appears in the

record as September 10th has no reference to the matter spoken of in this letter of Mr. Markham's of the 14th, I think that the conclusion must be that I wrote a letter to him which he fixes as of September 10th. Now, whether he made a mistake in the date or whether I did actually write another letter of even date with the one which appears in the record, I can't say.

Q. I call your attention to the first paragraph of the letter of September 14th by Mr. Markham. Does not that refer to the matter contained in your letter of September 10th, and might not the explanation of the second paragraph be that you and Mr. Markham had discussed the matter orally?

Mr. Mills—Objected to as leading and suggestive.

A. Well, that is a construction that I hadn't thought of. It is possible.

Q. By Mr. Lewers—The first paragraph does refer to matters in your letter, does it not?

Mr. Mills—Objected to as leading.

Mr. McCormick—And calling for the conclusion of the witness.

A. The first paragraph of the letter of September 14th undoubtedly refers to this matter of the execution of this proposed lease; and it also refers to the proposition discussed in the letter of mine of September 10th to assign those leases.

Q. By Mr. Lewers—Now, I call your attention to page 1755, to a letter of Mr. Markham of September 21st, in which he says: "Referring to your let-

ter of September 10th on the subject of proposed lease from the Southern Pacific Railroad Company to the Kern Trading and Oil Company, would ask that you kindly check this matter at an early date as possible and let me know promptly from your standpoint whether there is anything in the [919] lease that is really objectionable, consulting with Mr. Dumble and the law department in order that the lease may be properly drawn." Now, did you receive that letter?

A. I think I was there at the time. I may have been in Portland, but I think probably I was there. No, I beg your pardon; I was not in the office in San Francisco. It clearly appears from my letter dated, "Portland, Oregon, September 21st," the same date.

Q. Referring to page 1758?

A. Yes.

Q. Do you know whether the letter of September 21st came to your attention?

A. It came sooner or later, but just when I don't know; probably when I returned to the office.

Q. Now, on September 21st, 1904, you again wrote Mr. Markham, did you not?

A. Yes sir.

Q. Page 1758. That letter was written from Portland, was it not?

A. Yes sir.

Q. And do you recollect now approximately how long after you wrote that letter that you returned to San Francisco?

A. I don't remember, off-hand, when; but I think I must have returned during that month, because I was writing Mr. Dumble early in October.

Q. That is, on the 7th of October?

A. On the 7th of October.

Q. Now, in your letter from Portland, of September 21st, you say, "I will take this matter up immediately upon my return and I think we can make such a settlement as will give satisfaction all along the line." In that you were referring, were you not, to these leases? **[920]**

A. Yes sir; I think so,—the oil leases that had been under discussion.

Q. That is, those that were forfeited?

A. Or that might be forfeited, and probably notices had been served on the defaulted lessees.

Mr. Mills—With reference to the letter on page 1753, had you entirely finished with that letter? You stopped just before the sentence beginning, "as a further consideration."

Mr. Lewers—Yes, I thought I had; because the rest seems to be devoted to some proposition that has already been asked about.

Mr. Mills—I didn't know but what you wanted to ask Mr. Eberlein about the next sentence in the letter, "As a further consideration I believe we should require that the product be shipped over the Southern Pacific Company's lines."

Mr. Lewers—No; I don't intend to ask about that. What was the purpose of the suggestion?

Mr. Mills—I wanted to know why you stopped in the middle of the letter. You had gone through the first letter completely and in all the other letters you go into them completely, but you stopped where it seems to have injured you.

Mr. Lewers—If you want to know, I hadn't noticed that until you called my attention to it. I don't regard it as of half as much importance as you seem to.

Mr. Mills—I regard it as extremely important.

Q. By Mr. Lewers—Now, referring again to your letter from Portland, which Mr. Mills don't seem to want me to ask you about—

Mr. Mills—Yes; I want you to go fully into it.

Q. By Mr. Lewers—(Continuing.) You say, "I shall have a new oil lease to submit to you, one feature of which will be that the lessee shall be restricted to just so much land as **[921]** they can and will bind themselves to develop." You there again refer to individual leases, did you?

A. Yes sir.

Q. And not to the general broad lease?

A. No, no.

Q. Now, on page 1759, the second portion of that letter, second page, you say: "I don't know anything about the Kern Trading and Oil Company and have been left in the dark entirely as to the object and purpose of it. I did not wish to blunder along and bring myself into collision with Mr. Dumble in regard to matters as to which it would be his right

and not mine to decide. I wish to remind you, once more, that the lease to the Kern Trading and Oil Company, submitted to me, should not go through in its present shape, and that the schedule of lands referred to should be revised and corrected." Now, when you state that you don't know anything about the Kern Trading and Oil Company and have been left in the dark entirely as to the object and purpose of it, did you mean that at that time when you wrote that letter you had not been informed as to why the Kern Trading and Oil Company was getting this lease?

A. I think I had no official notice, information, at all about it.

Q. Had you been informed at that time as to what sort of land was being turned over to the Kern Trading and Oil Company?

A. No; I don't think they had informed me anything.

Q. Now, you say, "I wish to remind you, once more, that the lease to the Kern Trading and Oil Company submitted to me should not go through in its present shape and that the schedule should be revised and corrected;" what did you mean by that?

A. Just calling attention once more to the defects I have testified to a short time ago, that there were lands in there of which I had no jurisdiction, that the land officer [922] could not make a valid lease as to lands outside of the granted lands or other lands that had passed beyond the control or ownership of the Southern Pacific Railroad Company.

Q. Had your office been consulted in any way, to your knowledge, in the preparation of this list?

A. I think not.

Q. You hadn't been, had you?

A. I hadn't been, that I remember, at all.

Q. And was your statement in these various letters concerning this list being incorrect in the ways you have mentioned, based upon the records in your office?

A. Yes sir.

Q. And that statement was, according to your records, a true one, was it?

A. Was true as far as our records could show. Of course it was possible that the Southern Pacific Railroad Company might own lands without my knowledge or any knowledge of the land department, which was organized and controlled and directed only land grant lands. My powers, granted to me by the board, covered only land grant lands.

Q. Referring to page 1761 of the record, on October 7, 1904, you wrote to Mr. Dumble stating that, "You would be glad to take matters up with him as suggested any time tomorrow that will be convenient to you. I would suggest that you might find it more convenient to come to room 71, where we can have a room to ourselves and not be disturbed. If, however, you prefer I should come to your room, please advise me." Now, do you know whether or not the meeting that was referred to in that note to Mr. Dumble was had?

A. I don't remember anything about it. We may have met and talked over matters relative to this proposed lease at Mr. Markham's suggestion. [923]

Q. Well, have you any recollection of that meeting?

A. I don't remember a thing about it, and only that letter—nothing of any importance occurred, I think, because I don't recollect of any meeting with Mr. Dumble at all at that time. I must have had it, though, because Mr. Dumble refers to it in a subsequent letter.

Q. Now, referring to page 1763 of the record, to your letter of October 8, 1904, that letter was signed by Mr. Stone, was it not?

A. Yes sir; it seems to be.

Q. Well, do you know whether you were in San Francisco at that time?

A. No, I don't. October 8th.

Q. Now, you were there on October 7th, the day before, were you not?

A. I was probably there. If I was there the 7th I was probably there on the 8th; but I didn't sign that letter, and that might lead to the belief that I had gone to Texas or somewhere else at that time.

Q. But at the time when you wrote that note of October 7th, 1904, to Mr. Dumble, you expected to be present on the following day, did you not?

A. Apparently, from that note.

Q. And do you have any recollection of leaving?

A. No; I have not. I have not any recollection

of—No; that is something it is utterly impossible for me to fix.

Q. Now, in the letter of October 8, 1904, the statement is made, "Herewith I hand you plats showing the status of lands within the Southern Pacific Railroad Company's grant in," mentioning certain townships. Now, had there not been some discussion between you and Mr. Markham prior to that time with reference to the correctness of the description in the proposed [924] lease, and had you not called his attention to the fact that lands were included that didn't belong to the company?

A. I think I did tell him the fact. I called attention to it in the letter, certainly.

Q. Now, did you direct the preparation of any plats to show what the status of the Southern Pacific Railroad Company's title to the lands in the vicinity of McKittrick was?

A. I don't recollect of having directed any. I possibly did, if I had; but it was a matter that would not call for any direction from anybody, because it was a frequent matter for the operating department or the general manager or the engineering department to call for a plat showing our ownership of land and what condition it was in. Very often it became important to know whether lands were even surveyed, and they were furnished without any reference to me.

Q. Now, there was introduced in evidence as Plaintiff's Exhibit UU a plat, and I call your atten-

tion to that plat and ask you whether or not that is one of the plats that is referred to in the letter of October 8, 1904, sent to Mr. Dumble?

A. It may have been a copy of that. Now, I can't fix that. This was made evidently for my information, and it may have been, possibly was, a copy of a map furnished Mr. Dumble.

Q. Now, I call your attention particularly to the contents of that letter of October 8, 1904, where the statement is made over your signature by Mr. Stone, "Herewith I hand you plats showing the status of lands within the Southern Pacific Railroad Company's grant in Township 19 South, Ranges 14 and 15 East." Is that shown upon the plat?

A. Not on this plat?

Q. Not on that plat?

A. No. There must have been other plats furnished at the same time. [925]

Q. "Township 20 South, Ranges 14 and 15 East."

A. No.

Q. "Township 21 South, Ranges 14 and 15 East?"

A. No.

Q. In the Coalinga district. And "Township 30 South, Ranges 21, 22 and 23 East."

A. That is on this plat.

Q. "Township 31 South, Ranges 22, 23 and 24 East."

A. That is on this plat.

Q. "Township 32 South, Ranges 23 and 24 East?"

A. That is on this plat.

Q. Now, does that plat show the status of the title of the Southern Pacific Railroad Company to the lands in the townships last referred to?

Mr. Mills—Objected to, as immaterial and not fairly raised by this letter.

Mr. McCormick—The plat speaks for itself.

Mr. Lewers—I want to show that this is probably the plat, a copy of the one that was sent with that letter, which does not appear in the record.

Mr. Mills—You are mistaken about that. This plat is the one that came with the lease.

Mr. Lewers—Found with the lease, he says.

Mr. Mills—It accompanied the lease.

A. My understanding is that it did show the status of title at the time it was made. I didn't make it. It was furnished to me by those gentlemen whose names are signed as having checked it with the records—accepted by me, at least, as that.

Q. By Mr. Lewers—Now, this plat is stamped with the date "September 16, 1904?"

A. Yes. **[926]**

Q. Did you have such a stamp in your department?

A. Yes, we dated things, dated papers.

Q. With a rubber stamp in that way?

A. It was a dating stamp, I believe. I don't know. Those are details which I didn't have any occasion to have anything to do with.

Q. Now, did that map accompany the proposed lease that was sent to you on August 2nd?

A. No sir.

Q. Have you any recollection of where that plat did come from?

A. This plat?

Q. Yes.

A. It came out of the land department, made in the land department, evidently.

Q. Did it in any way accompany that lease, as a part of the lease, or in connection with it, to your knowledge?

A. Not this plat, that I know of.

Q. It is a fact, is it not, that that particular plat that I show you was found with the lease after the fire?

A. Yes sir.

Q. And that was in the vault in the land department, wasn't it?

A. Yes sir.

Q. In which building?

A. In the Merchants Exchange Building, in which we were burnt out April 18, 1906.

Q. Do you remember seeing that plat before the fire?

A. I think I must have seen it.

Q. Now, I call your attention to the notation that appears in several places on that plat, where the word "lost" occurs. What was the meaning of that? [927]

A. I understand that those are lands that were patented adversely to the company. This is the

westerly 30-mile limit, or the indemnity limit, of the grant. These are evidently adverse claims on these lands—possibly homestead entries.

Q. I call your attention to the legend that appears at the lower left-hand corner of that plat, and will ask you to read that, if you can.

A. Opposite the oblong character here in red is the legend, "Land included in lease to Kern Trading and Oil Company, all patented except southwest quarter of northwest quarter of Section 27, Township 30, South, Range 22 East, and all unsold except part of Townsite of McKittrick and the northwest quarter of the northwest quarter of west half of west half of northeast quarter of northwest quarter of Section 7, Township 30 South, Range 22 East sold and deeded, and east half of Section 7, Township 31 South, Range 23 East sold under contract." The next legend is opposite an oblong rectangle colored drab, and reads, "Patented unsold lands not included in lease to Kern Trading and Oil Company." The next is a rectangle colored brown, opposite which is the legend, "Unpatented selected lands." The next, opposite the yellow color, says, "Unsurveyed lands."

Q. Now, are the portions colored in red which are referred to in the legend as having been lost or sold the lands which you referred to in your letters as not belonging to the Southern Pacific Railroad Company, or a portion of them?

A. I think a portion of them. There are other lands that are entirely outside of that land.

Q. Referring to page 1765 of the record and to the letter of Mr. Markham of October 17, 1904, in which he states, "September 21st I wrote you on the subject of proposed lease from the Southern Pacific Company to the Kern Trading and Oil Company, asking that you kindly check this matter at an early date and **[928]** let me know from your standpoint whether there is anything in the lease that is really objectionable. Will you kindly advise status of matter at present time?", do you remember whether that letter was received by you?

A. I don't remember.

Q. Well, referring to the letter which appears on page 1767.

A. Yes; I must have been there, because I wrote on the 18th.

Q. That is, on the following day you answered the letter?

A. Yes.

Q. Now, in your letter of October 18th, appearing at page 1767, you say: "I am in receipt of your letter of the 17th inst. calling attention to the matter of the proposed lease from the Southern Pacific Railroad Company to the Kern Trading and Oil Company. Your letter has anticipated my letter to you on this subject. Mr. Dumble and I have had this matter under consideration in the past few days. The consideration of several matters in this connection is not yet complete, for the reason that Mr. Dumble is looking over his data with the intention,

as I understand it, of furnishing a new list of lands to be conveyed. The lease as now drawn conveys some lands outside of the grant and omits others that should be included. This is the most important matter connected with this lease, and I think the whole transaction can be closed as soon as Mr. Dumble reports." Now, does that letter bring back to your recollection whether or not, prior to October 18th, you had had a personal interview with Mr. Dumble?

A. Yes sir. I must have.

Q. And had there been any discussion, to your recollection, with Mr. Dumble, of this plat to which I referred a few moments ago?

A. I don't remember that plat, but if one was made and in **[929]** hand at that time I have no doubt it was before us.

Q. And do you know whether or not you gave any directions to anyone in your office to prepare a corrected list for the purposes of that Kern Trading and Oil lease?

A. I don't remember of having that or of Mr. Dumble ever having furnished a new list of lands.

Q. Now, you stated that "This is the most important matter connected with this lease, and I think the whole transaction can be closed as soon as Mr. Dumble reports." Did you have in mind at that time the possibility of closing the lease, signing it?

A. No sir. I was sparring for time. I didn't intend to sign that lease at all until Judge Cornish had a chance to pass on it.

Q. That is, you at that time hadn't heard from Judge Cornish in connection with the matter, had you?

A. No sir; he hadn't replied to my letter.

Q. Now, referring to page 1769, to the letter of Mr. Dumble to Mr. Bancroft, who was then the acting general manager, dated December 7, 1904, in which Mr. Dumble states that he has had a conversation with you and that "It seems for reasons of policy regarding certain unpatented lands that it will be best not to execute the lease of lands between the S. P. R. R. Co. and the K. T. & O. Co. at present," do you recollect that conversation with Mr. Dumble?

A. No, I don't. It is probably the same conversation that took place earlier that is referred to in these other letters.

Q. That is probably the same conversation in which there had been a discussion as to lands left out and lands put in which should not have been so?

A. Yes; the mistake in the original instrument.

Q. Now, how long, as nearly as you can fix it now from your [930] recollection, had Mr. Bancroft been here at the time when this letter of December 7th was written?

A. Mr. Bancroft came, as I recollect it, in about the middle of October. I recall that fact because Mr. Markham resigned in the month of October and he left almost immediately.

Q. Do you know what orders Mr. Markham gave with reference to the recognition of this Kern Trading and Oil lease before he left?

A. I am not aware that he gave any.

Q. Now, you learned, some time during the fall of 1904, that that lease was being recognized, did you not?

A. Yes sir.

Q. And were informed, were you not, that the auditor had entered it upon his books as a going lease?

A. So I was informed by the land accounts bureau, which was a branch of the auditing department.

Q. And vouchers for pipeage charges under that lease began to come into your department, did they not?

A. Yes; they did.

Q. And that was one of the matters that you called to Judge Cornish's attention when you talked with him, was it not?

A. That was one of the principal things spoken of, for the reason that I had been led to believe that that lease was in abeyance, the whole thing was in abeyance. I had nothing from anyone, as I remember it, nothing from Mr. Markham and certainly nothing at all from Mr. Bancroft, to lead me to believe that it was a lease or considered as a lease, and the first intimation I had they were going ahead with came from that source.

Q. Now, what did Mr. Markham tell you as to his authority over your department?

A. Mr. Markham took exception to some protest

that I put up [931] and the questioning of certain things that he had ordered done or intended to do regarding lands, and he informed me very pointedly that he was going to run the lands, that he was general manager of the Southern Pacific.

Q. By Mr. Mills—Southern Pacific Company?

A. Southern Pacific Company; and of course he was vice-president, as I remember it, of the Southern Pacific Railroad Company. In justice to Mr. Markham it must be said that the land matters were in an unnecessarily complicated condition. Mr. Markham had reason to believe from his position that he could issue orders and have them carried out regarding lands, having in mind the joker in the powers that were granted to me.

Q. By Mr. Lewers—What joker did you refer to?

A. I refer to the language which makes any acts of mine subject to the approval of the president or any vice-president.

Q. By Mr. McCormick—That language is in the resolution of the board of directors?

A. Yes sir. Now, so far as I was concerned, my connection with the lands was, by distinct stipulation made by Mr. Kruttschnitt, to be temporary. I was to be released just as soon as he could find a satisfactory man, and that language raised a very serious conflict of authority between Judge Cornish in the east and the manager actually in control on this coast, and I found myself right between the two, which I assure you was exceedingly unpleasant.

On this coast Mr. Markham was vice-president of the Southern Pacific Railroad Company and I think he honestly believed that he had a right to do anything with those lands that he saw fit—in a proper way, of course. My tenure of office and my authority there did not depend altogether on what the board of directors said—unofficially, I admit, but still it was none the less very controlling in my office. I belonged in the New York office, didn't belong here [932] at all; I came here and I came with instructions what to do.

Q. By Mr. Mills—From whom?

A. From Mr. Cornish. And, as I pointed out to Judge Cornish at the time I was appointed, and also to Mr. Kruttschnitt, my administrative duties here would very much complicate the other duties that been laid upon me by the New York office. I could scarcely see how I could carry both and it turned out I was right. It brought me into collision with different men out here unnecessarily, but as neither side would yield at all I was left here to fight it out the best way I could, and I got very little support from either side, and the only surprise in the situation is that I lasted as long as I did.

Whereupon the further taking of testimony herein was adjourned until 2 o'clock, P. M., at the same place.

On Tuesday, July 2, 1912, at 2 o'clock P. M., the further taking of testimony herein was resumed pursuant to the adjournment.

Whereupon, CHARLES W. EBERLEIN was recalled and cross-examination resumed, as follows:

BY MR. LEWERS:

Q. Mr. Eberlein, again referring to page 1769 of the record, where the letter of Mr. Dumble of December 7, 1904, is set out, when was it, if you can recollect, that that letter, or a copy of that letter, first came to your attention?

A. I don't know. It must have been very shortly afterward. I should judge so from the fact that those carbon copies were generally mailed at the same time the original is mailed.

Q. That is, the ordinary routine would be that that copy would be sent about the same time as the original would be sent [933] to Mr. Bancroft?

A. Yes sir.

Q. Now, were you in the office at that time?

A. That is a thing I can't fix. I know I went away. I fixed one trip. Whether I went through to Texas at that time I don't know. But I went out of town on the same train with Mr. Markham. I went as far as Los Angeles with him, and I laid over there and I believe I went on a day or two after.

Q. Was that the time he was going to Texas to assume his duties there?

A. That was the time he was going to Texas to assume his duties there; and we had quite a long talk on the way down to Los Angeles. I remember that very well.

Q. Now, that was in October, was it not?

Mr. Mills—I object to that as leading and suggestive. Let the witness state when it was.

A. I believe it was the latter part of October.

Q. Now, do you remember how long you were gone on that occasion?

A. I don't remember how long I was gone at that time. I don't remember how long I was in Portland. That was prior to this time. Only I know I was there. One letter was written from there. That is the only way I can account for my whereabouts during that part of the year.

Q. Well, have you any way of determining whether or not you were in San Francisco on December 7, 1904?

A. I have not any absolute way of fixing that. I probably was, because I went away, I am sure, that month. I think I was in New York in that month.

Q. Now, do you recollect, that is, is there any impression in your mind, brought out by the receiving of this letter of December 7, 1904? **[934]**

A. No, there is not anything connected with this letter. The only thing that I connect with Mr. Bancroft is a conversation I had with him in his office.

Q. Do you know whether that was before or after this letter was written?

A. I don't know; but it must have been about the same time, very near that time, I should judge.

Q. Now, was that conversation in regard to the same matter that is referred to in this letter?

A. It was in regard to several matters and this among them I am very sure.

Q. By Mr. Mills—That is, the matter in this letter?

A. The matter referred to in this letter, the execution of this lease.

Q. By Mr. Lewers—Now, what was said, if you recollect, about this lease by Mr. Bancroft?

A. Nothing excepting to say that he would be damned if he was going to mix up in any Southern Pacific squabbles. He was there to be as an interim officer, and he absolutely declined to "mix-up" as he called it. He said he was not going to be there, he was just there as an accommodation, and he was not going to take part in anything that there was any dispute in or anything of the kind. The whole idea was that he was just simply there in order to have an official head, but that he was not doing anything and didn't intend to do anything, left everything. I think everything was practically in the hands of Mr. King.

Q. That is, Mr. Bancroft was looking after the actual operation of the road?

A. Yes. He was an operating man, and I knew him very well indeed from official connection with him back in Salt Lake, the Oregon Short Line, and of course he talked very freely to [935] me and he just simply said that he could not study out these things and he didn't think it was worth while, because he would not be there.

Q. Now, who brought up the matter with him?

A. I think I did.

Q. That is, you made a statement to him with reference to it?

A. Oh, yes. He did not bring it up with me.

Q. What was it you told him, in substance?

A. I don't remember what I told him, excepting just the fact that this lease was pending, and he immediately protested that he did not know anything about it, he did not want to know anything about it or go into it, and he said, "You know I am here just a short time, and the shorter the better, and somebody else is coming in here—just leave those things and take it up later on."

Q. Did he ask for any of the files?

A. No, he didn't ask for anything.

Q. And did you show him any correspondence?

A. I think not.

Q. Was that a very long conversation between you in connection with this particular matter?

A. No, not in connection with that particular matter. We talked over a good many things, a good many things not connected with the Southern Pacific at all.

Q. Well, do you remember whether this letter of Mr. Dumble's of December 7, 1904, was referred to in that conversation?

A. I don't recollect, and I don't suppose it was referred to any more than any other. I don't know that he mentioned Dumble or that I did either. There were a number of things that were pending about that time, and I went over to talk with him, give him

what information I had or could give him, as I [936] had done in times past when I was working under him, and he made that characteristic remark of his that he didn't want to mix up in anything of that kind and said he didn't intend to; it wouldn't do any good, because he would not be here to see anything through; he was just going to let it hang.

Q. Is it your impression at this time that you were in San Francisco at the time this letter of December 7, 1904, was written?

Mr. Mills—The witness has already stated that the record will show that he probably was here and believes he was here.

A. I can't be positive. I would state exactly if it were possible; but in my mind the idea is that I probably was about that time.

Q. By Mr. Lewers—Now, did you go to New York in the month of December, 1904?

A. I think I did. I think I was there and that I went in the month of December, because I was down there around the 1st of January, I know.

Q. Now, where were you when you learned that the patent had been issued for this land in 30-23?

A. I don't remember that at all. I don't know that it made any impression on me—the issuance of the patent. I presume I was advised of it by Chambers.

Q. Who was Chambers?

A. D. A. Chambers was the attorney for the company in Washington, D. C. He appeared for the company before the Department.

Q. Is he alive now?

A. No; he died several years ago.

Q. Now, on page 1773 of the record appears a letter written by you to Mr. Cornish on September 3, 1904. Now, the opening paragraph of that letter or sentence is, "As you are [937] aware, the Kern Trading and Oil Company has been organized." Now, what did you mean by that statement?

A. I think I had written him with regard to it before. That is the only construction I can place upon it.

Q. But have you that letter that you wrote to him about it?

A. No.

Q. And that letter was not in the file which you produced here?

A. No. It probably hadn't any reference to this matter at all.

Q. Now, you say in the second paragraph, "I am totally in the dark as to the objects, rights, etc., of this corporation. I have asked for information several times but it has never been furnished me." Now, do you recollect now from whom you asked that information?

A. No, I don't. I don't know from whom I would ask it unless it would be the general manager.

Q. Well, do you recollect ever asking Mr. Markham, that is, have you any recollection of ever asking him that question?

A. I can't fix a recollection of asking Mr. Mark-

ham or Mr. Kruttschnitt, either one; but I must have done so, I must have asked somebody what it meant. I was keeping track of everything here and reporting to the New York office.

Q. Well, did you get any information from any source as to the purpose of the Kern Trading and Oil Company?

A. No. That statement there I think must be correct at that time.

Q. You understood, did you not, in a general way that the Kern Trading and Oil Company was to take over land in that vicinity?

Mr. Mills—I object to that question because it is highly leading and suggestive. **[938]**

A. I think my general understanding was that it was to take over oil lands of the company.

Q. By Mr. Lewers—Did you have any understanding as to whether it was to take over any land to be prospected?

A. No; I don't think I had any—as I was here —No definite information on the subject.

Q. Then it was your understanding or impression that the Kern Trading and Oil Company was to take over oil lands?

A. Oil lands. And the impression was strengthened by the fact of the proposal to transfer the leases.

Q. That is, the existing leases?

A. The existing leases.

Q. Did you know at that time whether on any

of the land covered by existing leases oil was being produced?

A. Yes. We were getting returns, as I recollect it, from some of these leases. They were not all of them being operated, but some of them were. That is my recollection.

Q. Were you informed at that time as to the extent and nature of the oil development in the vicinity of Bakersfield?

A. You mean the general development.

Q. The general development?

A. No; I do not. I was never in the field myself. I was familiar with the leases that the company had negotiated with individuals and corporations, but I think my information was limited to just about that. I had lots of other things to do.

Q. Now, the next paragraph has perhaps been answered, and is this: "I was told in a general way that this company was organized for the purpose of taking over the oil lands of the Southern Pacific Railroad Company and operating the same." Now, when you made the statement you were told that in a general way, do you recollect whether you were referring to information given you by Mr. Markham or by some one else? **[939]**

A. No; by some one else. I don't think Mr. Markham gave me any information at all. Now, this is merely a vague recollection. I think that information came around by the way of the auditing department.

Q. By Mr. Mills—Of what company?

A. Well, the general auditing department of the company. That includes, as I understand, the Southern Pacific Company and also the subsidiary companies.

Q. Including the Southern Pacific Railroad Company?

A. Yes sir; I think so.

Q. By Mr. Lewers—Now, you say that "A lease has been made for the term of ten years from the first of January, 1904, with a renewable term of the same period." By that you didn't mean that the lease had been fully executed, so far as you knew?

A. No. That is pretty loose language. That was not an executed lease at all. It was a lease that had been offered but not executed.

Q. Now, that lease that you there referred to was the lease dated August 2, 1904, that has been introduced in evidence?

A. Yes sir.

Q. And you understood that that was to date from the 1st of January, 1904?

A. That seems to be the understanding in this letter.

Q. Now, you add, "The lease is made by the Southern Pacific Railroad Company to the Kern Trading and Oil Company, and covers all the lands now in the ownership of the company that either are or are supposed to be oil-bearing." That was your understanding at that time, was it?

A. Yes sir.

Q. "The consideration for this lease is a royalty of one-tenth of the gross product or, 'one tenth of the gross amount of moneys received from the sale of said minerals, substances **[940]** and products.' " In the latter part of that paragraph you were quoting, were you not, from the lease itself?

A. That is a quotation.

Q. "This lease was concocted without any reference to me, and it has now been sent over for me to execute on behalf of the Southern Pacific Railroad Company." What did you mean by that?

A. Well, it means that I was taken by surprise. I didn't know anything about this lease—of its being in preparation. I was wholly unprepared when Mr. Markham brought it to me. I didn't know anything about it.

Q. Now, it was your understanding, was it, at that time, that whatever duties you had here in connection with the land department were derived by direct authority from Mr. Cornish?

A. Yes sir. That is the fact.

Q. And that was the instruction which you had received when you first came out here to reorganize and consolidate these two land departments?

A. That was the instruction, and that was insisted upon from the time I came until I returned.

Q. Now, at the time when Mr. Kruttschnitt asked you to assume the duties as acting land agent, were you informed that any change would be made in the control over your actions?

A. No sir.

Q. And your understanding was that the same situation continued?

A. The same situation continued. It was rather peculiar, but I came out here by appointment of Judge Cornish, to report to him; he in turn was loaded with the responsibility for this reorganization, by Mr. Harriman.

Q. By Mr. Mills—Was Mr. Harriman an officer of the Southern Pacific Railroad Company at that time? **[941]**

A. Of the Railroad Company?

Q. Yes sir.

A. I can't say as to that. I don't know.

Q. Well, what was he as to the Southern Pacific.

Mr. Lewers—You will have ample opportunity, Mr. Mills, to inquire of the witness. I would rather you would not interrupt the answer.

Mr. Mills—Well, it would save a little time.

A. He was president of the Southern Pacific Company. (Preceding record read by the Examiner.) I came out here with instructions to report to him everything. I was told at the same time that I of course had no official connection out here and the task was a pretty delicate one as it would in the end require consolidation and letting out people and all such things, and the instruction was to get along the best I could. He didn't think I would, but then to do the best I could. And he said that he would send to Mr. Kruttschnitt a letter, he being the official

head here; that undoubtedly I would require an order occassionally to be issued and I would have to have some co-operation here locally, and that Mr. Kruttschnitt—he would arrange with him that when I needed anything I would go to him and get it. He furthermore said that between Mr. Kruttschnitt and Mr. Herrin there was probably some—each was a pretty strong man in his way and was holding onto the reins of authority as strongly as they could, and be careful not to go to one more than I would to the other, but if I had to go to anyone, had to make a choice, why to go to Herrin.

Q. By Mr. Lewers—Now, what I am getting at is whether, after you were sent out here and when Mr. Kruttschnitt requested you to take over this other work, any modification was made, to your knowledge?

A. Not to my knowledge. The relation as it existed when **[942]** I came was always insisted upon by Judge Cornish.

Q. But prior to the time when you took charge of the land department as acting land agent do you know to whom Mr. Jerome Madden reported?

A. I think he reported to Mr. Kruttschnitt.

Q. That is, Mr. Kruttschnitt was here as general manager at that time?

A. As general manager. He didn't report to New York. None of the land agents did at that time.

Q. So that your position was entirely different, so far as your controlling authority was concerned, from that occupied by Mr. Madden?

A. Yes; mine was very complex. If I had been relieved from one or the other it would have been very much easier; it would have been better all around. If I had been transferred right to the Coast here and reported here things would have gone very much smoother.

Q. Now, proceeding with the letter to Mr. Cornish of September 3, 1904, on the second page you say, "I don't know that there is any particular objection to it, as perhaps one-tenth of the product may be fair. The company now receives one-fifth in some cases and in other cases one-eighth, and this is at a still lower rate. However, I do not object to that. I am, however, somewhat slow about signing this document and tying the railroad company up for a period of years." Well, had you been convinced by anyone or as the result of investigation that perhaps this ten per cent royalty was not so unfair?

A. No; but I realized my position here—a new man injected into this situation here—and I realized in all fairness that I might be mistaken about that, that there might be reasons, and good moving reasons, and good business reasons, [943] why one-tenth royalty should go, but I didn't know anything at all about it and I was kept in the dark, as I have stated, all along. I hadn't the means at hand, either from discussion or information from anyone or any source, to lead me to decide that question. I intended to leave that with my superior to decide.

Q. What was your own individual opinion at that time?

A. I don't think that I had enough information at that time to form an opinion which I should insist upon. That is the reason I put it in that way.

Q. Now, you proceed, "Of course I know that it is for the benefit of the Southern Pacific Company, but there is one feature which seems to me to be important. Inasmuch as the lease is made by the land department and the head of that department is taking the responsibility therefor, it does not seem proper that the Southern Pacific Railroad Company shall have nothing to say in regard to the disposition of its royalty oil. The lease provides that the oil may be sold and the one-tenth of the moneys received be turned over to the land department. It leaves the matter entirely in the management of the Southern Pacific Company, or the Kern Trading and Oil Company, I don't know which. In all events it is possible for some men not connected with the land department, nor with the Southern Pacific Railroad Company, to make a price on royalty oil belonging to the railroad company and sell it. There is no provision in the lease that the price to be received, in case the oil is sold, shall be the market price, or any other price. You can see that there is a wide open door for the disposition of the land department property at ruinous prices, thus depriving the land department and the bond-holders of a fair return for their property." Now, did you at that time consider that as a serious objection? [944]

A. It was serious so far as I personally was concerned.

Q. That is what I am getting at. As you looked at it individually?

A. I had to look at it in a very restricted area. I knew nothing beyond the bare facts that they had submitted to me. I knew nothing about the matters of policy or necessity. Nothing explained to me. I was simply thrown upon my own resources and asked to take the responsibility of making this long lease on these terms. And all I wished in that case was that all of these different matters should be put forth in the light in which they appeared to me and then let my superior officer take the responsibility. I didn't feel like taking it myself, from the lack of information—necessarily so, because I had been here less than six months at that time.

Q. Well, had you sent a copy of this proposed lease to Mr. Cornish?

A. I think not. I don't think I had. I had written him as these letters show.

Q. Now, had you made this objection with reference to the taking the matter out of the hands of the Southern Pacific Railroad Company to Mr. Markham in any of your discussions?

A. I don't remember whether there was anything said in the letters about that.

Q. Well, whatever may have been in the letters, do you remember any conversation in which that was brought out?

A. I don't know that I remember anything specifically on that subject. We had several discussions, but Mr. Markham was not disposed to discuss very much in regard to this, and I don't remember whether Mr. Markham made the suggestion that it was a family matter and I need not take any trouble about it. I intended to take trouble about it so long as I was the man who was going to be responsible for it. It looked to me like **[945]** a very serious thing for a man who was less than six months in as complicated a position as that is, and without any information except what he could glean, to take the responsibility for such a lease as that.

Q. Now, you proceed, on page 1775, along the same line, "I feel that it is incumbent upon me to look somewhat into this instrument and into the future. I know that it is hardly probable, but still it is possible, that the control of this oil company may by some contingency pass out of the present hands, and if it should fall into hostile control the railroad company would get very much the worst of it." Now, that was a serious consideration in your mind, was it not?

A. It seems to me that it was. As I say, it is not at all probable, but one of the possibilities in these days when government interference with every kind of corporate activity is in vogue, when we have the—I suppose the thing I had in mind was the action of the United States in regard to the coal roads. That was a pretty live issue with us back

in the Union Pacific. Sometimes you might find yourself divorced from your source of supply of fuel; and that is what I had in mind there, and it seemed as though it were a reasonable inquiry to make as to whether the necessities of the railroad company in such a contingency had been carefully thought out and provided against in that lease.

Q. And you had not received definite information as to what the circumstances were, had you?

A. None at all.

Q. You say that Mr. Markham was not disposed to discuss the matter?

A. Not discuss land matters very much.

Q. Why was that?

A. Well, Mr. Markham, I think believed that the land **[946]** matters were not very important—they were not railroading. That has been the difficulty all along. The Congressional land grants attached to large railroad companies have always been looked upon by the managers of the companies as a kind of—well, I don't know; a sort of a vermiform appendage that might just as well be cut off, as though they were a nuisance and a burden and drag upon railroad management and operation, and therefore didn't require very much attention, and that most any fool could run a land grant. That last has been the policy of almost every railroad in the country. Now, the situation in regard to these quasi-public lands has become complicated, serious, and even dangerous, in the last ten years, so that it requires

a great deal more thought than Mr. Markham dreamed that it did, and that is why I wished, not to control him, but didn't want him to go and tumble into a hole, as I was very much afraid he would, and as to any friction between us that was the cause of it. He could not see it and didn't have time to bother with it, and would not. At the same time, when any man came in to talk with him about a matter he would talk with him, agree with him, and after the thing was all over, it came up to me, to ratify it, and sometimes I would not ratify it because I felt very sure that it was not the thing for Mr. Markham or the road.

Q. Still, was Mr. Markham impatient concerning your refusal to follow his suggestions?

A. Mr. Markham was one of the most pleasant men I ever met. We didn't agree as to these things —not that he was short, but he was pretty positive.

Q. He was insistent upon his views?

A. Oh yes, he was insistent upon his views and I could not make him see it my way always.

Q. And that is an explanation of the statement that you [947] made on direct examination that you had quite a number of disputes about the matter?

A. Yes; yes.

Q. Now, you proceed, "As I have already stated, this matter has been hatched for my signature without submission to me or without consultation. I know the answer, in case the question was raised, would be that it is all a family matter and that I

need not concern myself about it." Now, I understand you to say that that suggestion may have been made by Mr. Markham?

A. Yes.

Q. "However, I take it that you are somewhat interested in this matter, and I want your advice as to what you think better be done to protect us against future complications. Do you think it would be wise and expedient and would it serve the purpose of protection if I were to demand action of the board of directors of the Southern Pacific Railroad Company ratifying and confirming the lease as it stands and directing the land agent to sign the lease? It seems to me that some such action is not only desirable, but necessary, inasmuch as it conveys control of the most valuable lands in the grant for a long term of years." You received no answer, by way of letter or telegram from Mr. Cornish, did you?

A. No sir.

Q. And you didn't see Mr. Cornish personally until some months after this letter was written?

A. Three months, probably.

Q. Now, did he, in the conversation you had with him when you did see him, refer to this letter?

A. Yes; he had been thinking that letter over a great deal.

Q. Did he have the letter before him?

A. I think so. That is my recollection. We had the lease [948] and the letter, and I brought everything else I had along.

Q. And you had your copy of the letter then, had you?

A. I had my copy and I had all this other material that I had received meantime.

Q. Had Mr. Cornish received any information concerning the matter from any other source?

A. That I don't know. I wanted some lead from him, but he was a very secretive man and he wanted to avoid every particle of trouble he could. He never wrote a letter, and it was frequently that matters here became acute and I could not get anything out of him. He never would go on record about anything by letter if he possibly could avoid it; and so I spent a great part of my time running back and forth between here and New York. In all the years I was there—I suppose I spent half of my time down there in the five years I was here.

Q. And then did he, in that interview or any other interview you had with him concerning this matter, inform you that he had received any information from any other source?

A. I think not. I don't think he had received any information. If he did he did not say anything about it.

Q. He discussed with you, did he not, the objections which you had raised to this lease?

A. Yes.

Q. And you went quite fully into that matter with him, did you?

A. Oh, yes; we went into it very fully, because

I had no desire to block anything out here, I simply wanted to be relieved of the responsibility, and he of course didn't want to be placed in the position of standing in the way of any action out here, but he didn't know anything about it. So I understood him. He did not know enough about it to direct anything to be done in regard to it, and I gathered from my [949] discussion with him at that time that he was as much in the dark as I was.

Q. That is, he told you that he knew nothing about it?

A. He knew nothing about it, and that accounts for his positive instructions, which was an unusual thing for him to give. He generally left you to work out your own salvation and not come to him, unless it got where nothing could be done.

Q. Now, did you, in that conversation, call his attention to what you refer to in this letter, the danger of the company, Southern Pacific Railroad Company, losing control of this land?

A. Yes; I think we touched on that, but I don't remember of anything particularly from him on that subject. I don't think those things appealed to him as much as they did to me.

Q. Well, was there anything said in that conversation about a meeting of the board of directors as you suggested in your letter?

A. I suggested that, and I suggested it down there, but he didn't seem to think that it was necessary or anything that he wanted to mix up in. This

action was taken by the gentlemen out here, and he was the president, as I recollect it, of the Southern Pacific Railroad Company, and without any information on the subject, and I think that his policy was not to do anything or have anything done until they did bring it up, until they brought him into it. That was the way he worked, and I don't think they ever did.

Q. You say "until they brought him into it". Who do you mean?

A. I mean the gentlemen on the coast here in charge, Mr. Markham and the board, whoever they were. The matter hadn't come to him by any reference, as I understand it.

Q. Now, you say further, in your letter of September 3rd to Jugde Cornish, reading from near the bottom of page 1775, "This lease has been lying here for some time during my absence [950] and I may be called upon for it at any time. I would therefore esteem it a great favor if you would give me any suggestions you may have by wire. I can stave off the delivery of this document for some time yet, I think, for the reason that if the knowledge of this lease becomes public property it will probably cause us a great deal of trouble in the United States Land Office and may result in the loss of a large body of adjacent lands which may hereafter turn out to be mineral and oil-bearing. I found on taking charge of this office that a large body of our lands, especially indemnity lands in the Coalinga, McKittrick and

Sunset fields, had been withdrawn by the United States from entry pending examination as to their mineral character. I have worked very hard and very steadily to get the United States to complete its report and dispose of this matter. I have just succeeded in getting the special agent in charge to make a report releasing our land from interdictment." Now, in your conversation with Judge Cornish did you discuss with him the matter I have just referred to, the effect of this lease upon pending applications?

A. Yes. That was the thing that was more interesting to him than anything else. I don't think he bothered himself about those details that I mentioned. I think he thought that was a matter to leave to the gentlemen in charge here. But as to that matter, he was very positive.

Q. Now, at the time when you had the conversation with him in New York, the patent had been issued, had it not? It was issued on December 12, 1904.

A. Yes; it was probably issued about the time I was there—a little before.

Q. Did you know at the time you had the talk with Judge Cornish?

A. I can't tell you whether I knew.

Mr. Mills—I don't want you to be led into any error, but [951] you have stated in direct examination that you were down there in the late fall or early winter.

Mr. Lewers—I don't want to be understood as try-

ing to lead the witness into any statement, because I have no desire to try to catch him or anything of that sort; I want the fact.

A. I think when I speak of "early winter" I would say that in my mind December would be the month that would cover the time that I was there, and when we talked this over; but whether the information of that patent had reached me at that time I don't know, because the patent would be sent direct; if it was issued the 12th it may have been mailed the 13th or 14th and passed me and that information may not have been in hand at the time I talked with him. It may, though. I would not be sure of that.

Q. Now, did you have in mind at that time, from the standpoint of your official duties, the possible selection of any other lands?

A. I don't recollect that. "The possible selection of any other lands"?

Q. In that vicinity.

A. Not unless the lands that were then unsurveyed were surveyed, and then we would certainly attempt to select them. As I remember it, there was a body of land lying south, I believe in that same indemnity, that was at that time unsurveyed.

Q. You knew that, did you not?

A. Yes sir. That appeared on those maps that were made.

Mr. Mills—I believe those lands were not surveyed until 1907.

Mr. Lewers—Oh, yes; there is no dispute about that. They were not surveyed.

Q. You knew at that time that they could not be selected until surveys were made, did you not?

A. Oh, yes. [952]

Q. Now, when you referred to the possible loss of a large body of adjacent lands, did you mean the lands in Township 30-23 or did you refer to some other lands?

A. I assume that I referred to lands in 30-23.

Q. By Mr. Mills—The lands in this suit, or under application, do you mean?

A. Those that were under application.

Q. By Mr. Lewers—That is, when you wrote your letter of September 3rd, these, of course, hadn't been patented?

A. Hadn't been patented; and that, of course, was what I was anxious about at that time.

Q. Now, you say that you worked very hard and steadily to get the United States to accept this report and dispose of this matter. What do you mean by that?

A. I mean I had pounded D. A. Chambers to make him get after the Interior Department, in the first place, to get a detail of some one to examine them, and then to get him to complete his work.

Q. Then you go on and say, "I have just succeeded in getting the special agent in charge to make a report releasing our lands from interdictment." What do you mean by that?

A. I mean by that I was working through Chambers, and got word from him to that effect. I was not working through the agent, because I never saw him or had any communication with him.

Q. "If it becomes known that we have executed a lease of lands interspersed with those already under selection by us, and that the lease is for oil purposes, it seems to me that it will immediately encourage oil speculators to file upon the lands so selected and that the government will have good ground for refusing patent, inasmuch as we practically fix the mineral status of the land by this lease." You understood at the time you wrote this letter, did you not, Mr. Eberlein, that the lease was [953] for oil purposes?

A. I can't say that I understood much of anything about it.

Q. Well, was that your impression, I mean?

A. It may have been my suspicion that it was. But as I have said before, I hadn't a syllable by which to guide myself. These gentlemen were not taking me into confidence at all, and I think it would have been a little too much for me to say then or to say now that all the land that was in that lease was oil land. Some of it was. As to the rest I can't say that I possessed information on which to draw any conclusion about it. If what indirect information I had was correct, the lands were to be transferred to an oil development company, and what I refer to here, badly expressed as it is, is my fear that the

government would take the very narrowest view possible of the situation and simply say, "Here, you, the land agent, land officer of the Southern Pacific, are making a lease of these lands lying here to an oil development company and at the same time you have got an application for lands non-mineral lying adjacent." I simply say that my experience with the Department has always been that it takes very much less than that to make them hold things up and perhaps take things away from you, because a railroad company has very little chance in its dealings with the United States General Land Office.

Q. Is that what you meant when you stated, "Inasmuch as we practically fix the mineral status of the land by this lease"?

A. That is just it. It raises a presumption, and what I was afraid of then I think has been fully confirmed now. It does not say, I don't mean to say, or be understood, that those are oil lands or I thought they were oil lands. I merely say the two acts taken together create a presumption which the government would not be slow to take advantage of. [954]

Q. And was it your belief at that time that that presumption was an improper one, a false one?

A. Yes sir.

Q. Now, turning to page 1793, I call your attention to a note of February 22, 1908, written by you to Mr. Conlin. Where were you when that note was written, if you remember?

A. I believe I was in New York at that time.

Q. And Mr. Conlin was in San Francisco at that time?

A. San Francisco; yes sir.

Q. And what position was he then occupying?

A. Assistant to acting land agent.

Q. Now, at that time, in February, 1908, where was this file of papers, including the lease?

A. That was in New York at that time.

Q. You had it with you?

A. I had it there; had taken it, I believe—The nearest I can fix it was that I took it away from San Francisco with me in 1906, leaving a copy of everything there in the private safe.

Mr. Mills—Have you copies of these papers in your possession?

Mr. Lewers—Of which papers?

Mr. Mills—The papers that he refers to that he took to New York.

Mr. Lewers—I will say that we have found carbon copies of a portion, but we have no copy of these letters to Judge Cornish or of the letter of September 10th to Mr. Markham. In fact, we have only copies of a portion of the files introduced in evidence.

Mr. Mills—I want to state to counsel that I was unaware, at the time these were introduced, that you had any copies whatever. I won't ask you to produce them, if you will waive **[955]** notice to produce now the copies which you hold.

Mr. Lewers—We will produce them in due time, together with a lot of other things.

Mr. Mills—Then that is all right. If I had known it at that time I should have served notice to produce.

Mr. Lewers—We have no objection to anything of that kind.

Q. Now, after you wrote that note to Mr. Conlin on February 22, 1908, when did you first see it again?

A. When it was produced here in court.

Q. Then that was not part of that file that you had in your possession?

A. No sir, not at all. I had forgotten all about that.

Q. Now, were there any other letters or papers introduced in evidence here that were not obtained from your possession?

A. I think that one of these letters that have been referred to and that attempted lease are all that I had.

Q. You had the plat, did you not, in your possession?

A. Yes, I had the plat with the lease. The plat and these letters that refer directly to this attempted action, and the action of myself and Judge Cornish in this matter.

Q. Now, to get at that more specifically, will you turn to the index to the testimony of May 16th and 17th, where there is a list of exhibits—"Exhibit DD, certified copy of resolution of the board of directors of the Southern Pacific Railroad Company, dated September 2, 1903, appointing Charles W. Eberlein acting land land agent." Was that obtained from your possession?

A. That was not in my possession.

Q. "Exhibit EE, letter Markham to Eberlein, August 2, 1904".

A. I am just assuming these are the same letters that are spread here in full.

Q. They are.

A. If that is the case, that entire list, as I take it, **[956]** were in my possession and produced in response to this summons.

Q. By "that entire list", do you mean, "Telegram Stone to Eberlein, August 4, 1904, Telegram Eberlein to Stone, August 4, 1904, letter, Stone to Markham, August 5, 1904, letter Markham to Eberlein, September 5, 1904".

A. Now, let me see about that. Yes; that is right.

Q. "Letter Eberlein to Cornish, September 10, 1904, letter Eberlein to Markham, September 10, 1904, letter Markham to Eberlein, September 14, 1904, letter Markham to Eberlein, September 21, 1904, letter Eberlein to Markham, September 21, 1904, letter Eberlein to Dumble, October 7, 1904, letter Eberlein to Dumble, October 8, 1904, letter Markham to Eberlein, October 17, 1904, letter Eberlein to Markham, October 18, 1904, letter Dumble to Bancroft, December 7, 1904, letter Eberlein to Cornish, September 3, 1904"?

A. Yes sir.

Q. Those were all in your possession?

A. Those were all in my possession.

Q. I understand that you testify that June 1, 1908, you resigned your position as acting land agent?

A. It took effect at that time.

Q. It took effect at that time?

A. Yes sir.

Q. For how long a period prior to June 1, 1908, had you been absent from San Francisco, approximately?

A. I can fix it pretty definitely. I was called to New York by telegram from Mr. Harriman early in October, 1907. I arrived there Friday, I think before that Monday when the panic began. I had an engagement with him at that time, and by reason of the upset in financial conditions there I had to remain there until such time as he could see me, and I didn't return here until I think the following spring. I believe it was in March, [957] I can't fix that off-hand.

Q. That would be March, 1908?

A. 1908. And I settled some things here and went back to headquarters. I had had correspondence with Mr. Harriman in September before, telling him that my work here was finished, that I had rehabilitated these departments as far as they could be and I wanted to be relieved, declined to accept any further service as manager of these land departments, and he called me east at that time and I was attached to that office from that time on.

Q. By "that office" you mean the New York company?

A. Yes sir.

Q. By Mr. Mills—Of what company?

A. Of all these companies; the Southern Pacific Company there—

Q. And the subsidiary companies?

A. And the subsidiary companies.

Q. By Mr. Lewers—Then some time in March or April, 1908, you were in New York?

A. Yes.

Q. And later you took a trip to Europe, did you not?

A. Sailed on June 6th.

Q. Now, prior to the time when you were called back to New York by Mr. Harriman, as you have related, where did you keep this file, including the lease and this correspondence?

A. My recollection is that they were in my desk there in the New York office.

Q. But I mean prior to that time. When did you take them away from San Francisco?

A. Oh, I believe they were taken away in 1906. Just after they were copied here I took this file that I have produced here with me down there. We didn't have any very good place to keep [958] things here. I considered that very important, so did Judge Cornish, and so I took it down there.

Q. Now, going back to the beginning: After you had learned of this lease, or had been requested to sign it on August 2, 1904, when was it that you began to keep the file concerning this lease separate?

A. I think I kept that together right along. I think it was on my desk right there for some months, right in my desk. This correspondence was coming

and going, and I don't think it was put away at all; I kept it there myself.

Q. Referring to this letter of September 3rd, to Judge Cornish, was that kept with that correspondence?

A. Yes sir.

Q. And for some time you say it was kept in your office in your desk?

A. Right in my desk, under my own hand.

Q. That is, separate from the usual files of the office?

A. Oh, yes; it was never kept there.

Q. What was your reason for not keeping the files out in the general files?

A. I didn't think that was a proper thing to be public property, for the reasons that I have stated. It was a matter that was in abeyance, for one thing, and was kept at my desk while that was on. It was a matter that might come up any day, did come up on almost every day in some shape over the telephone or by letter. I handled that myself; it was not in anybody else's hands. Even when I went away I would not allow anything to be done with regard to that. I considered it a very important matter, because it might not only compromise me but compromise my superior officer, who was responsible to Mr. Harriman and the board back there for land affairs. I felt that inasmuch as he was president of the company it was his business as much as any- [959] body else's and that if anything went wrong he would be criticised as thoroughly as anybody else. Then when the

vouchers began to come in I thought it assumed a pretty serious aspect. I didn't like that part of it at all.

Q. What vouchers are you referring to?

A. I mean the vouchers for pipeage, that were rendered, as I understood it, in accordance with the terms of this supposed lease. Now, that was done without any discussion of the matter with me at all, and showed a disposition to jam that thing through regardless of anybody, and it behooved me to be very cautious.

Q. That is, were you afraid that vouchers might be recognized by some clerk in the office?

A. That is exactly what I was afraid of, and I took very good pains to instruct those in the office who might come in contact with anything of that kind that approval in any way of that lease, or any voucher or anything by which we would be held to have ratified and confirmed that lease, would be met by immediate dismissal, and they were very careful.

Q. Now, when you went to New York, either in December or in January, in 1904 or the first part of 1905, whichever it was, you took this file with you, did you not?

A. I did.

Q. And when you returned you brought it back?

A. Yes sir.

Q. And where was it kept when you brought it back?

A. When I brought it back I got a box in a safe

deposit vault of the California Safe Deposit & Trust Company and kept it there.

Q. And how long was it kept there?

A. Kept during that year; and, for some reason or other, possibly brought up to add something else, or something, and [960] happened to be in the office at the time of the fire. That seems to be the case, for the reason that the letter to Judge Cornish was not brought along with the file for some reason or other but remained in that safe and was not burned.

Q. That is, your carbon copy was found in the safety deposit box of the California Safety Deposit & Trust Company?

A. Yes sir. That accounts for its condition, which is not carbonized.

Q. Now, after the fire where was the rest of the file found, did you say?

A. We had a steel box or safe in the vault. I think it had four compartments, four doors. And in that safe were kept—well, I kept some personal papers of my own in there, this file, and Mr. Stone had access to that particular compartment with me. I think we had two compartments there in which we kept papers that were not kept in general files.

Q. Now, after the fire, were you present when that vault was opened?

A. No sir, I was not.

Q. Who delivered these papers to you?

A. I can't recall that, because I was sick.

Q. That was when you had pneumonia, was it not?

A. I was just recovering from pneumonia, and I had a pretty bad shaking up during the fire and was laid up in Alameda for some days. I didn't come to this city at all for some days. And Mr. Stone was very much knocked out. So that things devolved largely on Mr. Conlin, and that vault was examined on Monday; Mr. Conlin and another employee came over here on Monday after the fire and found cracks around the steel door, from which smoke was coming, and under my orders they went over and attempted to stop the combusion inside by sealing up the crevice with cement. And the next day it had broken out in **[961]** another place and we went to the chemist of the company and he examined it and finally on Thursday, I think it was, he advised that they attempt to break in and try to save something, because combustion was going on in there and they could not tell the extent and things were being entirely destroyed. And we discovered at that time that the vault was just a sham, just a steel wire stretched from floor to ceiling and cement about an inch thick pasted over outside of it. And they battered the side of it down and made a rush to get what was in there, and all the wood-work collapsed and precipitated the steel cases with all their contents into the burning pile and the destruction was just about complete. They could not save anything. The only thing that was saved, that I remember or know of were the contents of this same steel box, in which, of course, there was no—very little combustion, and it didn't receive any air from the outside. When it

cooled off some days later it was opened. But I was not present at the time.

Q. Who opened the box? Do you know?

A. I don't know that, because I had an assistant at that time by the name of Kelly, and Kelly and Conlin and several of the other boys were here and took charge of it, and which had charge of that I don't know, but they were there when it was opened.

Q. Did you see the contents of that box before copies began to be made?

A. My remembrance of that is that those papers were brought out in a carbonized and very fragile condition and had been pasted on sheets when I got there, or attempted to be; and I directed my stenographer to make copies of those, and I remember his coming to me afterwards with a pile of something that was—oh, just bits—and asked what he should do with [962] it, and they were in such condition that it wouldn't have been any use at all and I understood it was the remains of this file.

Q. What did you tell him to do with it?

A. Oh, just throw it away. The stuff he brought me was absolutely of no use. I can't say definitely whether it was just this, but I understood that was the remains of this file that he had been copying under my orders.

Q. Now, did you check over the contents of that box in any way to see whether anything was missing, or check over the copies after they were made to see whether anything was missing?

A. No; I don't think I was present at the time be-

fore the copies were made—I may have been—and brought to me; but the work was done under the immediate direction of Mr. Stone and the copies were made and compared and brought to me. That is all I remember of that particular matter.

Q. At the time they were brought to you did you make any examination of them?

A. No more than to read them over.

Q. Well, at that time did you determine whether all the letters had been saved and copied or whether any were missing?

A. We were so topsy-tervy in those days that I may not have given that much attention, but I just assumed from the stuff that was brought to me that it was the file that had been there. I can't see any reason why it should not contain the letters that were in the file.

Q. Was it your impression at that time that it did contain the letters that had been in the file?

A. That is what I think now. I have no reason to suppose anything else.

Q. After you had received those copies made from the charred remains what did you do with them? [963]

A. I kept those in my own possession. Just when I kept them I can't tell you, for the reason that for weeks we were crowded into a room on San Pablo Avenue in Oakland. I think there were some fifty people in that one room, and fourteen typewriting machines and two multigraphs, and if there had just been straw on the

floor you would have thought you were inside of a menagerie, from the way it smelled. Those are the conditions under which we lived for several months, and the care and work we kept things in I can't begin to tell you now. We had no safe deposits as I remember and we kept things as best we could, and that whole time is a nightmare, and I guess every one in the Southern Pacific was in just the same condition.

Q. After the condition had been removed, that is after you got quarters other than those in Oakland, where did you keep those papers?

A. Those papers went with me, I think in May, to New York. I went in May, 1906, to New York and I didn't return until some time the latter part of Septemper.

Q. And they were with you during that time?

A. They were with me there and I think those were left there; that is my belief now, that they were kept there because they were safer.

Q. That is after you returned in 1906, was it? You went to New York what time in 1906?

A. May, 1906.

Q. And were there until what time?

A. Some time in September, 1906.

Q. And on your return in September, 1906, your impression is that you left those papers in New York?

A. Yes; left there for safe keeping.

Q. And where were they kept there? [964]

A. In my desk.

Q. And when did you return to New York, as nearly as you can fix it?

A. I don't think I was in New York until the following fall.

Q. The fall of 1907?

A. 1907.

Q. And had the papers remained in New York all of that time?

A. Yes sir; I think they remained. We had copies here.

Q. You had copies of them?

A. Yes; left them here for Mr. Stone's guidance.

Q. And where were those copies kept?

A. Mr. Stone must have kept them until some time when we had some vault space. I can't tell you about that, because the details of the office management I was obliged to leave to subordinates. I was loaded with too many things and was kept moving around too much. But as to these original papers, especially that original lease, I knew that Judge Cornish attached very great importance to that and I took it down with me and it was kept there. I am very sure it was kept there right along.

Q. But was there a copy of that lease kept in the San Francisco office?

A. Yes sir.

Q. Together with copies of all of the other papers?

A. Of all the other papers I had.

Q. Do you know what has become of those other copies? Have you ever seen them since?

A. I have seen them since while I was here in 1907.

Q. Well, did they remain here when you turned over the office to Mr. Conlin? [965]

A. Oh, yes; must have been.

Q. Have you seen them at any time since that?

A. Oh, no; I have not been in the office since early in March, I think, 1908. And I don't know that I saw them at that time, because I was here a very short time. But they must be in the office there, because I had that done so as to leave Mr. Stone in full possession of the facts, so he could refer to anything, and I believe there was a duplicate made of that map at the same time.

Q. Well, are you certain that there was a duplicate of the map, lease and all this correspondence kept here?

A. Oh, yes; I am positive there was right here, with these papers, a carbon copy of that lease, and the reason it was made was that there should be a copy left in the office for the protection and information of the office.

Mr. Lewers—Have you any other papers that you have not produced yet, Mr. McCormick?

Mr. McCormick—No sir; we told you every paper that was given to us with the exception of one paper we have now. That is a typewritten copy of the lease, and it was at the hearing in Los Angeles.

Q. Is this the paper you have reference to, Mr. Eberlein?

A. That is the copy I have referenec to.

Q. You are now referring to Exhibit YY?

A. Yes sir.

Mr. McCormick—Mr. Mills wanted to save the original as much as possible and asked you to stipulate to put in a copy in its place, and this is the copy that was put in.

Mr. Lewers—That explains that. But have you in your possession this duplicate file, or any portion of it, of letters?

Mr. McCormick—no sir. [966]

The Witness—I assure you that that duplicate is or should be in the safe of the land department.

Q. By Mr. Lewers—Now, in that connection were there not a large number of papers pertaining to the Southern Pacific Railroad Company indemnity lands kept in files in the office while you were in charge?

A. You mean filing cases?

Q. Filing cases in the shape of a large book that opened on the end?

A. What kind of papers?

Q. Pertaining to the Southern Pacific Railroad Company's indemnity lands?

A. Well, I don't identify anything from that description. We kept a lot of—As far as those office details are concerned, I am at a loss. I can say, though, that I ordered steel filing cases that were kept in the vault, where all contracts, leases and stuff of that kind was kept. As to these papers referring to indemnity lands, I don't know what you mean.

Q. Perhaps I have not made myself clear; but, first of all, do you recollect whether, during the time

you had charge of the office, any use was made in the department of these filing cases that are in the shape of a large book and that open on one end or would open corresponding to the edge of a book?

A. I don't think I can fix the thing in that way. Our filing system, as I recollect it, there, was the keeping of subjects, and they were pinched together with some kind of a clasp. Now, what they were kept in I don't know. I called for files and they were brought in. I rarely saw the workings out beyond.

Q. That was a detail that you left to others?

A. I had two assistants, and I held them strictly up to keeping the office going. I had to leave a great deal to them. **[967]**

Q. Now, did you have any file cover for these papers that you kept in this private file?

Mr. Mills—I don't want to object, but I think you are incumbering the record with immaterial matter, and I will have to object if you continue this any longer.

Mr. Lewers—I think you will find it will be very material. I will state the purpose of it if you desire.

Mr. Mills—I wish you would.

Mr. Lewers—The purpose is to show that subsequent to the time when Mr. Eberlein left here there was probably in existence a certain file and that that file has been removed by some person other than Mr. Eberlein from the file.

A. I will just say that we did have a system, as I recollect, there, and I—I think a manila folder something like that, folded there, and things were slipped

in, and on the outside an endorsement—that was done in some cases I know. Whether in this case I don't remember.

Q. Well, did you have any such folder for your private file?

A. I don't remember that, but I think it is altogether likely, to keep these papers all together, keep them from becoming separated.

Q. I call your attention to the letter Exhibit XX, from Mr. Calvin, of December 26, 1907, and particularly to the file-mark, "B, 30, 20, 22", and I will ask you if you know whether that was a file-mark employed in your office or was the file mark on the letter as it came from Mr. Calvin's office?

A. Well, I would assume that that was a file mark that was put on in the land department. It would hardly be on there coming from the other office, though that I can't say. It does not mean anything to me. I don't know.

Q. Now, I call your attention to the letter written by you on October 7, 1904, to Mr. E. T. Dumble, marked on the top, [968] "From file No. 47." Do you know what that file is?

A. No, I don't.

Q. Do you remember the system of file numbers that you had in your office at that time, or did you have anything to do with that?

A. I don't think I had anything to do with it. I know that the filing system was first class bad, I thought, and we changed it several times. But those details I don't know anything about.

Q. Then are you able to state whether you had a file in there "No. S-60"?

A. No. That means nothing to me. I don't know whether that ever came out of the land department. "Records McKittrick, Coalinga oil fields." That may have been something Mr. Stone inaugurated without reference to me, or my knowledge. I don't know what it means.

Q. The card which I have just shown you and which you have referred to is the one marked "Defendants' Exhibit No. 1", is it not?

A. Yes sir.

Mr. Mills—Was that offered in evidence?

Mr. Lewers—"For identification". It will be offered in evidence.

Q. Now, was your private file—I am not referring to the duplicate—returned to San Francisco at any time before your resignation in 1908?

A. You mean these papers I have brought in here?

Q. Yes.

A. I think not. I don't think it was. I don't think there was any necessity for it.

Q. Then in 1908, while you were in Judge Cornish's office in New York, did you have any other files belonging to the [969] land department, or papers?

A. Oh, there were papers sent back and forth after files there, but I don't have anything particularly in mind. They were sending files on to me continually for one purpose or another. For instance, there would be a demand for information before the board

there in regard to some land matter, very often timber matters. In those cases the files were sent on. I remember a number of cases of that kind. But I think they were always returned.

Q. Now, did you have on hand any files in the New York office that belonged to the San Francisco office, at the time just before you sailed for Europe?

A. I don't have in mind anything that was there. There may have been some things left there that probably were not important or hadn't been returned. I don't know. We had clerks there that looked after that thing.

Q. Well, do you recollect turning over any papers at that time for transmittal to the San Francisco office or be left with Judge Cornish?

A. I have no distinct recollection about that; but I think it is altogether probable that I cleaned out my desk and sent back stuff that was not important at that time, unless they happened to be things that were apt to be called for there.

Whereupon the further taking of testimony herein was adjourned until Wednesday, July 3, 1912, at 10 o'clock A. M. at the same place.

On Wednesday, July 3, 1912, at 10 o'clock A. M., the further taking of testimony herein was resumed pursuant to adjournment: **[970]**

Whereupon, CHARLES W. EBERLEIN was recalled and cross-examination resumed, as follows:

The Witness—If it is just as convenient for you now, may I offer a correction to the testimony.

Q. By Mr. Lewers—If you have any correction to make, you may proceed.

A. I have testified in regard to the letter on page 1793, written by me to Henry Conlin, dated February 22, 1908. I don't know that this correction is important, but as nearly as I can give dates I want to do it. I find by reference to private memoranda which I have just found that that letter was written in San Francisco and not in New York. Evidently my testimony arose from the fact that I knew I was in New York about that time. The fact is that I left San Francisco on that day, and therefore that note must have been written here.

Q. And that accounts for the fact that that was not written upon a letterhead of the New York office, does it?

A. Yes sir, that does. I came from New York on a hasty trip to break up my house here and move things to New York as I expected to remain there, and I was here a very short time and was very busy. I knew I was in New York that month, or about that month, or about the first, or somewhere in there, anyway, and I thought I was there when I wrote that note. I was here.

Q. Now, at the close of your testimony yesterday I think we had reached a point where you had stated that this private file was in New York in 1908 at the time when you resigned?

A. Yes sir; that is true.

Q. Did you have a desk of your own in the New York office?

A. Yes; I had a room there and a desk which I occupied when I was there.

Q. At 120 Broadway? [971]

A. At 120 Broadway. And in my goings back and forth I left papers behind me. Sometimes I think some papers were left in the safe there, but I don't think these were.

Q. Now, was this file that you had in your desk in New York at that time and which has been produced here, the entire file in reference to this matter?

A. You mean this file that I have produced?

Q. Yes.

A. I believe that is all.

Q. Well, now, was there not some correspondence with reference to claims for pipeage charges sent in from the auditor's office?

A. There may have been, but if there were they must be here.

Q. By Mr. Mills—By here where do you mean?

A. San Francisco.

Q. By Mr. Lewers—But did you not have letters of that kind in that file?

A. I don't think there was. I don't recall it, at least. I will just state generally that my recollection as to files and times is necessarily pretty hazy. I was jerked back and forth between here and New York so frequently, and there were so many things called for down there, and files had to be sent, that I always had to go loaded with a great deal of lumber, because I was expected to answer all kinds of questions when I got there, and my recollection is that there was prob-

ably a vast amount of stuff in the files of the New York office. I believe they were weeded out occasionally and sent back. That was attended to there; I didn't attend to that myself.

Q. Now, after you left New York on June 6, 1908, on your trip to Europe, where was that kept?

Mr. Mills—Which file do you refer to?

Mr. Lewers—There is only one file. **[972]**

Mr. Mills—Do you refer to the file he had in New York?

Mr. Lewers—Why, certainly. Mr. Eberlein understands, if you don't.

A. That must have been left among my effects there. I left a lot of stuff behind me there in storage.

Q. Well, was it left in the office at 120 Broadway, or elsewhere?

A. No, no; it was in my possession.

Q. And you say you left a lot of your effects in storage?

A. Yes.

Q. And do you remember your getting that file on your return from Europe?

A. I presume I went over a lot of things, because I moved a lot of stuff from there out to Ohio. All my effects that I had there I moved at that time and brought them out there, and that among them.

Q. And did that file remain constantly in your individual possession after that time?

A. Yes sir, until the day it was pried out of me down in Los Angeles.

Q. And you say you went to New York some time either in the fall or early winter of 1904 and '05?

Mr. Mills—I must object to that question, because it is a mis-statement of the evidence.

Q. By Mr. Lewers—It might possibly have been some time in January, might it not, 1905?

Mr. Mills—I object to that question as extremely leading.

A. I know that I was down there around December, and January of that year, and I believe it was December, but I cannot be positive. It is a long time ago.

Q. By Mr. Lewers—How long did you remain there, as nearly as you can recollect, on that trip? [973]

A. I can only judge by the length of time that it usually took me when I was there, and I must have been there some weeks, I think.

Q. And your headquarters were in the office of Judge Cornish?

A. Yes sir; always. They were my headquarters before I ever came on the Southern Pacific, and there were matters which I had in charge even after I came on the Southern Pacific, and that accounts for my long absences from here very often, and I had all kinds of papers and reports that I had made of everything down there.

Q. Now, had any of these claims for pipeage charges come in before you went to New York?

A. That is my impression now. I can't swear definitely as to that, but that is my belief, that that

is one of the things that was under discussion at that time. The fact that they had come in showed a disposition to not let the matter sleep but to go on with it as a lease.

Q. Well, you had been informed, had you not, that the lease was being treated by the auditor as a going lease?

A. My remembrance is that that is the way I got it. I don't remember any distinct conversation with the auditor about it, but I do remember of those bills coming in, and I suppose there must be files of those bills here in the office.

Q. Now, you discussed that matter, did you—these pipeage charges—with Judge Cornish?

A. Yes sir.

Q. And did you inform him what you had learned as to this lease being treated as a going lease?

A. Well, that is all I could inform him; but that he was informed of, because it was the subject of conversation at different times after that. [974]

Q. Do you know whether he issued any orders to Mr. Markham or to anyone else with reference to recognizing or not recognizing that lease?

A. Not that I know of. I should doubt it.

Q. You never heard of any being issued, did you?

A. No sir.

Q. Did you not have in your possession or in your office in New York, at the time when you went to Europe, or shortly prior to that, many other papers concerning other matters in the land office in San Francisco?

A. Oh, I think there was a considerable accumulation of stuff of one kind and another there. That is my recollection now. It must be remembered that I had been absent from San Francisco practically since September and had only come back here on a very hurried trip, and that I was endeavoring to carry on business in both places, and that of itself accounted for a considerable accumulation of stuff down there; but I believe that the clerks there bunched up a great lot of stuff and sent it back, though I didn't superintend that and can't say.

Q. Did you instruct them to do so?

A. I think so. I think that was the thing I wanted done at that time. But they may have had files that they had kept there for their own or for Judge Cornish's information. That is something entirely within their control and not mine.

Q. Was there not some correspondence with reference to this Kern Trading and Oil lease that you turned over to the New York office shortly before you went to Europe?

Mr. Mills—I object to that question as leading and suggestive.

A. Well, I don't know what it was. If there was I don't remember it at this time. **[975]**

Q. By Mr. Lewers—I call your attention to government's Exhibit BBB, a letter of December 27th written to you by Mr. Henry Conlin, and to the fact that that letter refers to the copies or a copy of the lease of December 12, 1907. Did you receive a copy of that lease?

A. It would seem so from that letter.

Q. Do you recollect what you did with it?

A. No; I don't.

Q. Was that lease ever recognized by you as acting land agent in any way?

A. No. My only recollection of this is by reason of Mr. Calvin's letter in which he designates it as a "substitue lease."

Q. You understood that to mean as a substitute for the lease of August 2, 1904, did you not?

A. Yes sir. I had forgotten altogether about the date of that, though I had some papers in this file I know now, but it had escaped me altogether.

Q. Did you call the attention of Judge Cornish to this letter of Mr. Conlin's of December 27, 1907?

A. I think we had a discussion of that same subject, and I think I took the Judge's advice as to the matter of recognition. The matter came up, as I remember it, as I was uncertain in the premises, because, if that was a new lease executed in full, as i recollect that it was, though I don't remember now who executed it, but it was executed in full by the officers of the company, it became pertinent for me to know whether that was peoper at that time, and my recollection is—Now, this is not definite, but I believe this is the fact—that that word "substitute" was what made it desirable to continue our policy in regard to that, for fear we might be tangled up in some way with that old matter. **[976]**

Q. Well, now, was any comparison made by you at that time of this new lease, substitute lease of De-

cember 12, 1907, and the old lease of August 2, 1904, as to description?

A. I don't remember of ever having made any.

Q. You had the old lease in your possession in New York at that time?

A. Yes; that was in my possession at that time. As to this I don't recall the fact, only that letter shows that I did receive a copy of it.

Q. Well, independently of that letter, is it your recollection that you did have a copy?

A. I don't now recollect. I do recollect of having some discussion on that subject, that matter of substitute lease. Now, as I say, those recollections are vague, because it came in at a time when we were extremely busy with other things and all during the first of 1908, and until I left, the Oregon and California matters were taking all the time.

Q. Did you turn over the copy of the lease that was sent with Mr. Conlin's letter to Judge Cornish when you left?

A. I must have done so, I think, or it must have gone back to San Francisco with the general ruck of stuff that was there.

Q. Was there any discussion between you and Judge Cornish, after Mr. Conlin's letter was received together with this copy of lease, concerning the two leases, that is, the one that Mr. Conlin sent and the old lease?

Mr. Mills—I object to that question, because the witness has stated that he has no recollection of receiving a lease accompanying the letter of Mr. Conlin.

A. I don't have any recollection of a comparative discussion of that at all. I don't recollect of ever having compared the terms of the leases. If the lease was there, as would [977] seem to be indicated from this letter, I rather think that it didn't get very much discussion at that time except as to that one fact that I speak of. That was the only thing that would engross our attention, because if that was not material then the lease would be all right, I assume.

Q. By Mr. Lewers—You say, as I understand it, that you had long prior to that time discussed with Judge Cornish the matter of keeping the files separate?

A. Oh, yes; that came up several times, and there were reasons why it did come up apart from anything with the Southern Pacific.

Q. Now, did he tell you anything about the danger of vouchers slipping in, or was that discussed between you?

A. Oh, that was discussed, as I remember, the first time we talked.

Q. And was that the reason which he assigned for keeping this lease and file separate?

Mr. Mills—I object to that question, because the witness has gone over that completely yesterday, stating the reasons that inspired that discussion.

Mr. Lewers—Not on cross-examination.

Mr. Mills—He stated the several reasons, as I recall the testimony, why Judge Cornish regarded that as a dangerous file, and to keep them separate, and he enumerated the reasons.

Q. By Mr. Lewers—I will ask the question again: Did Judge Cornish give as a reason for keeping that file separate, the danger of vouchers being slipped in there for pipeage charges?

A. As I remember it, that is one of the reasons. I don't think that was all the reason that was given.

Q. Now, you say you had discussions a good many times with him with reference to keeping that file separate? [978]

A. That came up several times, to my recollection.

Q. And was any discussion had concerning that at the time when this new lease of December 12, 1907, was executed?

A. I don't remember the fact. It may have been, but I can't remember it.

Q. Well, was any inquiry made by Judge Cornish at that time as to where this file was, or was he informed?

A. The Judge knew that I had it, because he had told me to take charge of it and keep it, keep it close, for my own protection as well as his own.

Q. That is, he knew at all times, up to the time when you resigned, that you had that file?

A. Yes sir; he knew it, and, as I say, it was a matter of maybe not frequent discussion, but he asked me on one or two occasions that I have some recollection of—just the dates or probable dates I could not recall—as to whether I had it.

Q. By Mr. Mills—Had the file, you mean?

A. Had the file; yes.

Q. By Mr. Lewers—And did Judge Cornish say

to you in so many words that he desired you to keep that file for his protection as well as your own?

A. He put it on me. He said, "You may have occasion to use that for your own protection".

Q. Did he say against what?

Mr. Mills—Let the witness finish his reply.

A. Against any possible complication that might arise.

Q. By Mr. Lewers—Did he regard that file as valuable as a protection?

A. Yes; I think he did. He considered that lease very valuable.

Q. He never suggested destroying it, did he? [979]

A. No sir; not at all.

Q. Or any of the correspondence?

A. I think not. I never heard such a suggestion

Q. You have testified that Professor Dumble occasionally applied to your office for lists of land or made applications in connection with land?

O. Yes.

Q. Did you ever furnish any information of that kind?

A. Oh, yes; I think so.

Q. When was it that he began making those applications?

A. Well, I think there is a reply to one of those applications in evidence here.

Q. Do you remember which exhibit it is?

A. I think it is in a letter written by Mr. Stone

Mr. Mills—Stone to Dumble.

The Witness—It gives a list of the lands.

Q. By Mr. Lewers—You are referring to the letter of October 8, 1904?

A. Yes sir.

Q. Well, was not that a list that was furnished in connection with this Kern Trading and Oil lease to show the status of the lands in that lease?

Mr. Mills—I object to that as extremely leading and suggestive. The document will show for itself what it is.

A. Well, I don't know. It does not say so here and the only thing that would lead to that belief would be the chronological order of these letters.

Q. By Mr. Lewers—Well, did it not concern land that was embraced, a portion of it, in that lease?

A. I see here in Township 30 South, 23 East. That is in that lease.

Q. That is Section 31 of that township? [980]

A. No; I am wrong. "30-23"?

Mr. Mills—I think there is one section in that lease.

A. 30-23 is here, but it is not in that lease.

Mr. Mills—Yes; there is one section there.

Q. By Mr. Lewers—Was not that letter written during the time when the discussion was going on between your office and Mr. Markham's office concerning the execution of this lease?

Mr. Mills—I object to that as leading and suggestive. The witness has stated that he does not know whether that was in connection with the lease or not.

Mr. Lewers—Well, if you will listen to the questions you will not be interposing these frivolous objections, which are merely for the purpose of delay.

Read the question. (Last question by Mr. Lewers read by the Examiner.)

A. Oh, it was during that fall when the matter was under discussion.

Q. And it was after you had made, or your office had made, the objection that the lease contained a description which was incorrect?

A. Yes; subsequent to that letter of mine.

Q. When did Judge Cornish die, Mr. Eberlein? Do you remember the time?

A. I think he died early in 1909. I think in January, 1909.

Q. It was after you had severed your connection with the San Francisco office?

A. Oh, yes; yes.

Q. And Mr. Harriman died when?

A. I think he died in May, 1909. That is simply recollection. I cannot fix dates or even months. But I think they died, both, in the early part of 1909.

Q. At page 1930 of the record, yesterday's transcript, you were asked with reference to Mr. Markham as follows: **[981]**

"Q.—Still, was Mr. Markham impatient concerning your refusal to follow his suggestion. A.—Mr. Markham was one of the most pleasant men I ever met. We didn't agree as to these things—not that he was short, but he was pretty positive. Q.—He was insistent upon his views? A.—Oh, yes; he was insistent upon his views and I could make him see it my way always." Should not that be, "I could not make him see it my way always"?

A. Oh, yes; certainly. The very context shows it.

Mr. Lewers—And, while we are on the subject of errors, I desire to call attention to the fact, so that there may be no misapprehension about it, that at the bottom of page 1847, of the proceedings of July 1st, Mr. McCormick asked the following question of counsel for the defendant: "Mr. McCormick—We also ask you to produce the lease mentioned in the letters which have just been introduced in evidence and marked respectively 'CCC' and 'DDD' designated therein as the 'general lease which the Kern Trading and Oil Company holds in Coalinga" in the one instance and 'general lease which the Kern Trading and Oil Company holds' in the other." As the record appears, no answer was given by counsel for the defense. That is probably due to the fact that there was a general discussion going on and the reporter didn't catch it. My recollection is that I replied that we understood that the lease referred to in those two letters was the lease of August 2, 1904, and that there was no other lease.

Mr. McCormick—Yes. You further stated at that time that you had no record of that lease either in the way of a duplicate or the original—or a copy of it— in your files; you could not find it.

Mr. Lewers—No, I didn't say that, because I have found one copy. Where it came from I don't know.

Mr. McCormick—Would you mind showing us that? **[982]**

Mr. Lewers—I have no objection, but I haven't it with me. It is just the same as the other one.

Mr. McCormick—"Other one"? The one of December 7th?

Mr. Lewers—No; the one you introduced.

Q. Mr. Eberlein, have you a copy of the testimony of July 1, 1912, before you?

A. Yes sir.

Q. Will you turn to page 1826?

A. Yes sir.

Q. And, referring to the question beginning at line 19, you answer as follows: "We naturally recognized at least the very ambiguous position in which we would be placed, both of us, by that lease, if that lease were made—and especially if I made the lease, I having also made the selection list which was at that time unapproved".

A. That is corrected in the lines below. I didn't mean "unapproved". It was approved, but not patented.

Q. Well, at the time when you had this conversation with Judge Cornish, had not the patent been issued on December 12, 1904?

Mr. Mills—The witness has already stated that it hadn't been, and the context later shows plainly that it hadn't been.

Mr. Lewers—I am speaking of the time of the conversation.

Mr. Mills—Yes, of the conversation in which he called attention to it.

A. I don't think that was known at that time. It is too far away for me to be positive about anything, but this is my conclusion—not a fact: If that

patent was issued on the 12th—I don't recall the date. You stated it and I have no doubt it is true—the fact of it probably didn't reach me for some time later, because those patents are not always sent promptly. **[983]**

Mr. Mills—I think you went into that yesterday.

Q. By Mr. Lewers—What I want to get at is this. When you made that answer in response to Mr. Mills, were you referring to the time when you wrote the letter or were you referring to the time when you had the conversation with Judge Cornish?

Mr. Mills—I object to that question as extremely leading, because the witness has stated that in that conversation with Judge Cornish the patent had not yet issued.

Mr. Lewers—I object to this method of constantly attempting to coach the witness. I desire to get at the facts and not the government's theory.

Mr. Mills—That is the objection I am making to your question, that you are attempting to lead him into a statement that is a palpable error?

A. I believe it refers to the discussion down there in New York.

Q. By Mr. Lewers—Then when you say that the land had not then gone to patent you mean that you probably had not heard of the patent?

A. Oh, I don't pretend to say in that when the patent issued, because I didn't know, and don't know now except what you told me yesterday. These things passed from my mind long ago. I may have known at some time the date of the patent, but it never im-

pressed itself on me at all. That was not important to me. In this discussion I have no doubt that we were discussing it without knowing that fact. If that issued on the 12th of December it must have been some time after that before I learned it.

Q. Now, after you had learned that the patent was issued, you had discussions with Judge Cornish about the matter, didn't you? **[984]**

A. Oh, these discussions lasted as long as I was in the employ of the company.

Q. And at the time when your office received a letter from Mr. Calvin, on December 27th or 26th, 1907, in which Mr. Calvin stated that he had been unable to find a copy of the lease, did you inform Mr. Calvin that you had a copy?

A. No, I don't think so. I was not here at the time. I don't think I had any discussion. Oh, I may have written him a letter, but I won't be positive.

Q. You have no copy of any such letter, have you?

A. No sir, I have not.

Q. And did you at any time in your official capacity as acting land agent of the Southern Pacific Railroad Company in any way recognize the second lease?

A. No sir.

Q. And you continued your refusal to recognize the pipeage charges, or the lease in any form, as long as you acted as land agent?

A. That is correct.

Q. Even though the patent had been issued long before?

A. Yes sir.

Q. And did you consider the terms of second lease any more favorable than the terms of the original lease as a matter of business policy?

A. I don't remember of ever having read that second lease.

Q. Now, in your letter of September 10, 1904, to Mr. Markham, and also in your letter of September 3, 1904, to Judge Cornish, you make the objection that the existing leases of oil lands are being transferred to the Kern Trading and Oil Company and that a reduced royalty will be received. Now, can you find anything in that lease of August, 1904, that indicates that that is the fact? [985]

A. I assume it is, from the statements in those letters. I have not read that lease for a long time and I could not tell you anything about it now.

Q. That was your belief at the time, was it not?

A. It must have been.

Q. Well, hasn't it been true, as a matter of fact, that under the operation of that lease the Southern Pacific Railroad Company received the same rental that was provided in these individual leases?

Mr. Mills—I object to that question until the witness has the opportunity to read the lease. We have it here in evidence. Let him see it.

Mr. Lewers—I am asking what actually happened.

A. I can't testify to that. I don't know.

Q. As you don't know what was actually received?

A. No; I don't. That would be natural, too, be-

cause those matters were handled, I think directly from Mr. Dumble's office to the auditor's office and what credits we got were credited on the books down there. The books were not kept in our office, nor were they subject to our control. I never saw the books. I organized that bureau and my first month or six weeks here on the ground was largely taken up in that business, but after that I had nothing to do with it.

Mr. Mills—Here is the reference in there. (Handing document to witness.) Here is the letter. (Hands Examiner's transcript to witness.)

The Witness—In my very cursory examination of that I do not see a reference to those leases; but may I ask, is not the land that is subject to those leases—is not that transferred by this lease?

Q. By Mr. Lewers—I will call your attention to the concluding paragraph of that lease, if I may, wherein it is stated, [986] "All of the rights hereby granted being, nevertheless, subject to any and all leases of and rights of way over any part or portion of said described premises heretofore made or granted by the party of the first part", and ask you whether at the time when you examined that lease in 1904 your attention was directed to that paragraph at the end of the long description of the lands?

A. No; I don't recall it. However, just off-hand, now, I take that to refer to rights of way that then existed for pipe lines and water lines and telephone lines and things of that kind which were being continually granted over the oil lands of the company.

That was one very serious thing we had to deal with —the continual demand for the acquisition of rights of way for one purpose and another.

Q. Then that was probably your understanding at that time?

A. I think so.

Q. At any rate, you did have the impression that this transferred existing leases at a reduced royalty?

A. I certainly did.

Q. And you don't know what the actual practice under the leases was so far as payments to the railroad company were concerned?

A. No. I think that was carried on entirely outside of our department.

Mr. Lewers—Take the witness.

Mr. Mills—Let me ask you if there was not a separate instrument assigning these leases which accompanied the lease to the Kern Trading and Oil Company, which you have in your possession?

Mr. Lewers—No. There was a separate instrument which assigned one or two leases belonging to the Southern Pacific [987] Company. That was all. The Foltz lease I believe it was. I have another request to make that I would like to make at this time. Has the government in its possession any correspondence with the witness George A. Stone?

Mr. Mills—I don't know of anything, Mr. Lewers. I think not.

Mr. McCormick—None whatever that I have seen.

Mr. Lewers—Is there in existence, to your knowledge, a letter written by him to the Department of

Justice or to any other government official in connection with the matters that have been testified to by him.

Mr. Mills—I have heard of such a letter, but I have never seen it and I have as yet never made any search for it.

Mr. Lewers—Will you endeavor to secure that. We desire to have it.

Mr. Mills—I shall produce it if we have it. I thought at first your question related to any correspondence between Mr. McCormick or myself and Mr. Stone.

Mr. Lewers—Well, that is another matter.

Mr. Mills—I have nothing, unless possibly some statement as to when he was coming to Los Angeles, but I don't recall anything even of that nature.

Whereupon the further taking of testimony herein was adjourned until Friday, July 5, 1912, at 10 o'clock A. M., at the same place.

On Friday, July 5, 1912, at 10 o'clock A. M., the further taking of testimony herein was resumed. [988]

By agreement and consent of counsel the further taking of testimony herein was adjourned until 1 o'clock P. M.

On Friday, July 5, 1912, at one o'clock P. M., the further taking of testimony herein was resumed pursuant to the adjournment:

Whereupon, CHARLES W. EBERLEIN was recalled for redirect examination, and testified as follows:

By Mr. Mills:

Q. I call your attention, Mr. Eberlein, to page 1876 of the of the reporter's transcript, in which the following colloquy took place: "Q—Then the selection of these indemnity lands was part of your plan in protecting the interest of the company, was it? A—Yes. Q—And who ordered or directed that this selection be made, list 89? A—I ordered the selection list to be made. Q—By Mr. Lewers—Was that done at the instigation of Mr. Stone? A—'At the instigation'? Q—Yes. A—No. I rather think I instigated Stone." Now, I ask you whether at the time you came into the land department of the Southern Pacific Railroad Company, defendant, which you stated was about August 12th, and during the same month this selection was made up, you had any specific knowledge of these particular lands at the time that list was made?

A. No sir. It would be impossible for me to have had.

Q. Will you state the circumstances, then, of how this list came to be made up, so far as you recollect it?

A. It seems to me I have testified as to that.

Q. Well, I will ask you the specific question: Did you instigate Mr. Stone to make up this particular list 89?

A. It seems to me the word "instigated" is an improper one [989] to use in that connection.

Q. Well, it was suggested by counsel for defendants and you adopted it.

A. Well, I don't think there is any instigation

about it. The fact, as I have already testified to, is simply the carrying out of the general policy of keeping the surveyed lands selected, and that is how this list originated, I believe.

Q. Did you give any specific orders to Mr. Stone to go and make this particular list of lands?

A. Do you mean by "this" the particular descriptions on that list?

Q. Yes; the particular descriptions.

A. No.

Q. Either by sections or townships?

A. No sir. I would not have known them if I had been told. It must be remembered that I was as green about the land affairs of the Southern Pacific, almost, as it was possible to be. I had given no attention to land matters particularly. I had been engaged since I came there in organizing the land accounts bureau, getting the machinery ready and set in operation that I was sent there to do, and what you are talking about was something that had not occurred at that time.

Q. When was the first notice you had of the particular list? Was it presented to you by Mr. Stone?

A. Yes.

Q. Was that the first notice you had of the specific lands mentioned in that list?

A. I didn't read the list at all. It wouldn't have done me any good to read it. I was depending entirely on Mr. Stone's knowledge of the lands, which he had been over, as I remember his having told me, that qualified him to give me the information on

which I could make a non-mineral affidavit. [990]

Q. You did not, as I understand it, then, pick out these particular tracts of land, or know anything about them, or remember of ever having heard of them before?

A. Never. I knew nothing about the records of the office at that time. I could not have made up that list at the time if I had wanted to. Mr. Stone was familiar with that work, and had been for a long time, and he continued to do that work in that way as long as I was connected with the department.

Q. Did you, on that occasion, or any other occasion, to your recollection, send Mr. Stone, or anyone else, out to make any specific examination of these tracts of land?

A. No sir; I did not understand there was any made.

A. At no time, you say?

A. Not that I know of.

Q. Now, did you ask him, at the time the non-mineral affidavit was presented to you, as I assume it was, when the list was presented—was it?

A. The list was presented?

Q. The non-mineral affidavit.

A. Yes sir.

Q. When he presented you that did you say anything to him at all?

A. I asked him about the character of the land; yes sir.

Q. Now, after that time, on any other lists of land, while you were the acting land agent,—was it your

custom, after you became more familiar with the land grant, to make more specific examination of the tracts of land which were about to be selected by the company?

A. Oh, we afterwards had field men and made considerable selections as I remember it, under Mr. Stone's direction.

Q. I am asking about the general policy of your administration—whether, subsequent to this list, it was your custom [991] to send out parties to examine land specifically?

A. I don't remember, have no recollection, of the lists, the dates they were made, or anything about it. As I say, that was the branch of the work that was entirely delegated to Mr. Stone. Somebody had to do it. It would have been as impossible for me to attend to those particular, specific matters, as it would for the president of the Southern Pacific to grease the wheels on the engines.

Q. Now, you have stated, and I am quoting solely from my memory, as I have not the reference here before me, that there was no co-operation between Mr. Dumble and you office during that time? I think I have stated that correctly.

A. During what time?

Q. During that year, 1904—or during 1903.

A. I would amplify that and say there never was any co-operation.

Q. Well, I don't ask for any amplification. I am calling your attention to this particular statement. Do you know, as a matter of fact, or do you now wish

to be understood as saying, that Mr. Dumble never came into your office and had a talk with Mr. Stone with respect to the selection of lands yet unpatented which he believed to be mineral and oil-bearing?

A. Well, all I can say is that I know nothing about it. I have no knowledge of it, if he did.

Mr. Lewers—Nor has anybody else. It is a gratuitous suggestion on the part of counsel, and is not redirect examination.

Q. By Mr. Mills—What did you refer to, Mr. Eberlein, in one of your responses to a question, as "a joker" in the resolution of the board of directors appointing you as land agent? I merely want to clear it up. I don't want any amplified statement. What did you mean by it, is all I want. **[992]**

A. I simply referred to the language inserted, which I would not wish now to be understood as having been placed in there in any surreptitious way. I merely referred to the language which makes the grant of powers to me subject to the approval of the president or any vice-president; and my reference to that as "a joker" is by reason of the peculiar and uncomfortable "mix-up" that succeeded—I called attention to that matter to my own superior officer—for the reason that it hampered and impeded the work of the land agent. He could not do the work as he should.

Q. How was Mr. Stone's appointment brought about as assistant to the acting land agent?

A. Simply that I appointed him and took the ap-

pointment over to Mr. Kruttschnitt to ratify, which he did.

Q. Now, you have referred, on examination by Mr. Lewers, to a letter which was received by Mr. Kruttschnitt, written by Mr. Stone, in which Mr. Stone threatened to lay this matter before the Department of Justice or give it to the press, and you have stated, "So, nothing was done", in respect to that letter. Was there anything done after the receipt of that letter?

A. Well, let me inquire. You say "this matter"?

Q. I refer to the matter contained in the letter, whatever it was.

A. Oh, it had no reference to this particular contention here.

Q. I am talking about the subject matter of the letter.

Mr. Lewers—I think the witness should be permitted to finish his answer.

Q. By Mr. Mills—Well, I want to make myself clear. I am speaking of the subject matter of the letter which Mr. Stone wrote, whatever it was. [993]

A. The letter was written.

Q. Please answer my question whether anything was done in response to or in connection with that matter.

A. Yes.

Q. In reference to looking it up.

A. It as referred to me by Judge Cornish, with the request to know what he meant. I couldn't tell him what he meant. It was a vague threat that he

would lay matters in his knowledge or possession before the Department of Justice, and give them to the press. I couldn't tell what he meant. I knew of nothing, and I didn't attach much importance to it; but I did communicate with Henry Conlin, who was my assistant, asking him to find out, if he could, what Mr. Stone meant.

Q. Well, did you write him, or wire him?

A. I suppose I wired him.

Q. You wired him.

A. I naturally would, I think.

Q. Did he ever make any report to you as to what it was, if you recall now?

Mr. Lewers—Have you that telegram, Mr. Mills?

Mr. Mills—No. I ask you if you have.

Mr. Lewers—No. I think you have those papers.

Mr. Mills—I have no papers whatever—They have not been introduced—that I know of, now, excepting what I have already announced to you.

A. I don't recall any report. I presume he answered me, but if he did he could not give me any information; because it made no impression on my mind if he did.

Q. As nearly as you can recall now, Mr. Eberlein, and simply for the purpose of having it correctly appear in the record, when did you first become acquainted with Mr. Dumble, who has been referred to here as consulting geologist? **[994]**

A. I have cudgeled my remembrance for the answer to that question and I am extremely vague. Remember, it was a long time ago. And Mr. Dumble,

my belief is, as nearly as I can fix it in my own mind, was not a resident in San Francisco during the first part of my acquaintance with him or knowledge of him. I understood that his headquarters and his home were in Texas. As nearly as I know, or can fix it, I probably didn't know Mr. Dumble before 1904, early in the year, probably.

Q. Early in the year 1904?

A. Probably early in the year 1904. I would like to make an inquiry, for the purpose of fixing something in my mind.

Q. Certainly.

A. If Mr. Shoup can tell me, do you remember whether we moved from the Wells-Fargo Building on Second and Mission streets in 1904? Was that the year? Was it December, 1904, that we moved from there into the new quarters.

Mr. Shoup—I could not answer that question without looking it up.

The Witness—If other men can't remember these things, perhaps I may be excused.

Mr. Shoup—I will try to look it up and tell you.

Q. By Mr. Mills—In your letter, dated September 21, 1904, from Mr. Eberlein to Mr. C. H. Markham, and introduced in evidence, found on page 1759 of the reporter's transcript, you make the statement, "I didn't wish to blunder along and bring myself into collision with Mr. Dumble as to matters as to which it would be his right and not mine to decide." As early as the month of September, at least, 1904, you had met Mr. Dumble, had you not?

A. Yes; I certainly had.

Q. And knew who he was?

A. Oh, yes. [995]

Q. On page 1746, there is a letter introduced in evidence addressed to W. D. Cornish, in which you say, on September 10, 1904, "For your information I beg to hand you copy of letter of this date to Mr. Markham setting forth the objections to the lease of Southern Pacific Company to Kern Trading and Oil Company." Now, on page 1748, a letter dated September 10th, addressed to Mr. Markham, and I ask you whether that last letter was the letter which you refer to in your letter to Judge Cornish.

Mr. Lewers—That all appears in evidence, Mr. Mills.

Mr. Mills—Well, I was not certain about it.

A. Yes sir; that must be the letter that is referred to.

Q. Then you sent a copy of the Markham letter of September 10th, 1904, to Judge Cornish?

A. I did.

Q. On the same date?

A. Yes sir.

Q. Now, at the time of your visit to New York, when you talked over the subject matter of this lease with Judge Cornish, you had with you the file which you have referred to here, containing this correspondence and lease. Do you know whether Mr. Cornish at that time had in his hands these two letters, the letter which you wrote him September 3rd and the

copy of the letter of September 10, 1904, to Mr. Markham?

A. I don't know how I could know that fact, Mr. Mills, without having some preternatural ability to look back. But Judge Cornish was a lawyer, and I think that it was his invariable practice to have all the papers before him. In all the matters that I transacted with him I had to cart back and forth great quantities of papers to submit to him. His usual formula was, "Well, let us see the papers", and I have no doubt and I believe the fact to be, that he did have all these papers before him. **[996]**

Q. Did he give you any reason, or have you any reason now to know why Judge Cornish did not reply to the letter of September 3, 1904?

A. Anybody that knew Judge Cornish would be able to answer that question.

Q. Unfortunately I didn't have the pleasure of knowing Judge Cornish.

A. No. Well, I believe I have testified to it before. Judge Cornish is dead, and what I say is not to be taken as any reflection upon him. I want that understood.

Q. Yes.

A. He was a peculiar man, and notwithstanding the fact that I was his confidential man, and was for years—I think the only one he had—still he never put himself on record. My belief is that he always wished to leave himself in the position where he could take matters up as though he had had no previous information. It was a peculiarity of mind, it was a

peculiarity of habit, but it was a fact, nevertheless. And not only in this case, but I think in about every case, things became acute in many ways, and it was not an unusual thing for him to wire me to come on to New York without telling me what he wanted, leaving me entirely to divine what he might want. Whether he sent for me in this case I don't know. But I did go, and I did take this matter up with him, and I would not have thought of proceeding without his concurrence and his direction. I would have had no right to do so under my particular instructions and my appointment, which you must remember did not come from the board of directors but came from New York. And it must be remembered, too, that my appearance in San Francisco, my continuance here, and the main reason of my being here, was to make a reorganization. This business was thrust upon me, this particular business of being a land agent, and the temporary **[997]** nature of my employment here is fully shown in the title "Acting land agent". It was not my intention to be loaded with that. I would not be anybody's land agent for any length of time if I could help myself.

Q. Well, what was the reason, do you understand, Mr. Eberlein, that he didn't reply to your letter of September 3, 1904?

A. I think it would take a clairvoyant to find that out. I don't know, excepting just what I have said. I don't know how to explain it otherwise. He did not reply.

Q. Do you know whether he wired you to come to New York?

A. I don't remember that.

Q. When you went to New York you discussed the matter referred to in the letter?

A. Oh, yes, it was fully discussed.

Q. Now, there are some matters in that letter referring to pipeage charges and reduction in the gross amount of royalty, and several collateral matters in addition to the statement regarding the establishment of the mineral character of these lands by the execution of that lease.

A. Well.

Q. Was Mr. Cornish in any wise interested in any of those other matters?

A. Let me see if I understand what you mean. You mean as to these matters—

Q. Did he take up the details of pipeage, and pipeage charges, and royalty? Was he interested in that sort of thing?

A. I don't think he was interested in those, except as to one thing as to which I am clear, and that was as to the passage by me of bills for pipeage.

Q. Because they would serve as a recognition of the lease, do you mean? [998]

A. He informed me as a lawyer that that might be considered as a recogntion and ratification by me whether I signed the lease or not. I never had any advice from anyone else regarding it but from Judge Cornish.

Q. Now, is it not a fact that the paramount mat-

ter discussed by you at that meeting with Mr. Cornish, and the only thing which was regarded as of any importance whatever by either one of you, was the actual danger threatened of etsablishing the mineral status of the lands involved in this suit by the execution of that lease to the Kern Trading and Oil Company?

Mr. Lewers—To which we object, on the ground it is leading and suggestive. I suggest also that it is calling for the conclusion of the witness. The best evidence is what was actually said and done and not the conclusion of the witness at this time. It is the counsel's language and is not based on anything in the record.

A. As near as I can remember, after this lapse of time, that matter was discussed, and pretty fully discussed, as to the relation that the execution of that lease might put me in in regard to the list that was already in and approved.

Q. Was not that the principal subject under discussion between you and Mr. Cornish?

A. It may have been, because it was a very important matter.

Q. Was Mr. Cornish in any wise, to your recollection, interested in any of these collateral matters, which were matters of detail, referred to in the letter, such, for instance, as the reduction of the gross amount of royalty, and so on?

A. Oh, I don't suppose he was interested in that, because I imagine he would think that was within the province of the gentlemen here. Whether he considered those as entirely irrelevant and immaterial I

can't tell you, because he might [999] have had his own ideas about that which he didn't convey to me.

Q. By "the gentlemen here", whom do you mean?

A. I mean the manager of the Southern Pacific and his assistants and co-ordinate officers.

Q. During that discussion in respect to this selection list, did you have in mind at that time the effect of the execution of this lease upon the good faith of your non-mineral affidavit and the question that might be raised by the government?

A. I think we both recognized the possibility of the thing being called into question some time—somebody's good faith.

Q. Now, on that proposed lease, Mr. Eberlein, of August 2, 1904, which has been introduced in evidence here, there appears an endorsement, "Approved as to form, W. F. Herrin. Approved as to description, E. T. Dumble". You knew at that time who Mr. Dumble was, did you not?

A. Yes sir; I think so.

Q. That he was the consulting geologist of the Southern Pacific Company?

A. I think I knew what his title was; not much more.

Q. Now, you had seen Mr. Markham sign the lease, as I understand it, and you left for Denver? Is that right?

A. That evening; yes.

Q. And during your absence the lease was sent to your office? Is that correct?

A. Yes sir; that is correct.

Q. And subsequently Mr. Stone notified you by wire at Denver that the lease had been received?

A. Yes.

Q. And you replied to that?

A. I did.

Q. Now, during that month, do you recollect whether you took any time to go thoroughly over the lease before you wrote **[1000]** the letter of September 3, 1904?

A. I don't remember, but I hardly think so.

Q. You were busily engaged in other matters, I think?

A. I can't place my movements further than I went to Denver and I went to Omaha—I remember who I went with from Denver to Omaha—and I had matters on the Union Pacific which I was loaded with, as well as matters out her, which called for attention, and I don't remember whether I went on to New York or not, but I was gone for a considerable time; and I returned here, and the only thing I have to fix anything of that month in mind by is the date of that rearranged list, which had escaped my mind completely until brought into evidence in Los Angeles. That was signed, as it appears, on the 3rd day of August. Now, the latter part of the month in the land department was a very busy time, cleaning up the flotsam and jetsam of routine—payrolls, and everything, and signing of all kinds of routine matters—so that my belief is that I didn't give that any attention, or very little attention, during that month or

until the first of the following month. That would be the reasonable thing to suppose from the ordinary process of business and work in the department.

Q. Now, referring to your letter of September 3, 1904, to Mr. Cornish, in which you specifically call attention to certain objections you had to the lease, do you now recollect whether you had given any time to digest that lease before you wrote that letter?

A. Oh, yes; I think I had taken time to sit down and read it carefully and make some analysis of it. I could not have written a letter, otherwise, with reference to it.

Q. Did you at the time you wrote that letter have any reason to believe, or any suspicion, that these men who attempted to have you execute that lease had a greater amount of knowledge [1001] upon the subject matter of these lands than yourself?

A. As to "these men", I can only testify as to one. The appearance of Mr. Herrin's name on that is not significant at all. It is simply to approve the document as to its form. Mr. Dumble's name on there, and that certificate, is a different thing. That brought to my attention, as I believe, from what I can recall, the circumstances as they existed at that time. That was a surprise to me, and I objected to the preparation of such a document, which called, and must call, for the records of my office, without any reference to the office, as that was. I don't know, I don't think I knew or had any notice at all, that Mr. Dumble had any connection, or knew anything about the Southern Pacific

Railroad lands. He was an officer, consulting geologist, at least, of the Southern Pacific Company, and he had no connection with me that I knew of; and, as the examination of the list by the people in my office showed that there were mistakes, I called Mr. Markham's attention to it, and the language of that reference in the letter shows something of my condition of mind at that time in reference to that particular matter. It was a rather mild form of protest, but it was a protest.

Q. Didn't you have reason to suspect at that time, Mr. Eberlein, that Mr. Dumble at least had knowledge of the mineral character of these lands, or, at least, knowledge of the character of the land, which he had withheld from you?

Mr. Lewers—Objected to as calling for a conclusion and not calling for a statement of any facts at all. Whether he had reason to suspect, one counsel may think there was reason to suspect and other counsel may not think so.

Q. By Mr. Mills—(Continuing). I speak now of September 3rd, when you wrote that letter.

A. Well, now, it is impossible for a man—That is a [1002] psychological problem which it is pretty hard to solve at this distance of time. As to just what my state of mind was at that time it is very hard for me to say or to fix. The fact as I now remember it, and as seems to be fixed by my letter to Mr. Conlin, was that here was a man certifying as to the correctness of a list of land, the only list of which was kept in my office, and as to his connection with that I didn't know

that he had any or had asked for any information. If he had it had slipped me—if I had known anything about it, and I didn't believe I did. It may have raised in my mind some uncertainty as to what Mr. Dumble knew; but as to whether it was as to mineral character I can't tell you. However, taken in connection with protests I made thereafter, I may have had a feeling that Mr. Dumble had knowledge of lands which I did not have. You remember the last letter introduced in evidence is a protest of mine against Mr. Dumble's examining unpatented lands without any knowledge of or reference to or co-operation with the land department. I think it is a very reasonable thing for any man cha charged with the duties that I was charged with—the duty of making a non-mineral affidavit on the very best information he could obtain. as I did—to have the feeling that some man examined those lands and charged the company with notice but without charging me with notice. Now, that is as far, I think, as I can go in this matter.

Q. By Mr. Lewers—By that letter to Mr. Conlin, you refer to the letter of February 22, 1908, do you not?

A. Yes sir.

Q. By Mr. Mills—But that was a continuation of your protest which you had made repeatedly, was it not, against Mr. Dumble examining lands not yet patented?

A. About examining any lands. How would they know whether they were patented or not? The ex-

amination of Southern Pacific **[1003]** lands without any knowledge, consent, approval, or any co-operation with the responsible land officer—he was in danger of being placed in an anomalous position, at least, all the time.

By Mr. McCormick:

Q. Have you the volume with page 1933 in it?

A. Yes sir.

Q. At that time I believe Mr. Lewers was questioning you with reference to this conversation which you had with Judge Cornish in New York, and the question at the top of page 1933, relating to that conversation, is as follows: "Q—And you went quite fully into that matter with him, did you? A—Oh, yes; we went into it very fully, because I had no desire to block anything out here." What did you have reference to when you made that statement?

A. Undoubtedly to the action that these gentlemen were attempting to take out here. If the gentlemen wanted to make a lease, a proper lease, of lands for any purpose, I didn't see that it was any of my business to get in their way. In this particular instance I thought the lease was improper to be made in the form that it was.

Q. You stated after that, "I simply wanted to be relieved of the responsibility, and he, of course, didn't want to be placed in the position of standing in the way of any action out here." Does your explanation with reference to what you meant yourself apply also to the way he treated it?

A. Certainly I so understood it at the time. But I further say here that "He knew nothing about it".

Q. Now, in the letter found at page 1755, letter from Mr. Markham to Eberlein, dated September 21, 1904, the last clause of the letter suggests that Mr. Eberlein consult Mr. Dumble and the law department in order that the lease may be properly drawn. [1004] What law department did you understand was referred to there?

A. The only law department there was—the one presided over by Mr. William F. Herrin as chief counsel of the Southern Pacific Company.

Q. That was the law department of the Southern Pacific Railroad Company as well?

A. I understand it to be so, and of every other branch of the railroad company.

Q. Now, as I understand your testimony, when you were directed to come out here by Mr. Cornish, at that time no instructions whatever were given to you, nor did you know, that you would be called upon to attend to the duties of land agent of the Southern Pacific Railroad Company at all?

A. No; it was absolutely not thought of at all.

Q. And the first time that it was suggested to you or you were told that you would be expected to attend to those duties was when Mr. Kruttschnitt broached it to you?

A. Yes sir.

Q. And thereafter the resolution a copy of which has been introduced in evidence here was passed?

A. Yes sir.

Q. Giving you the authority to act as such land agent?

A. Yes sir.

Mr. Mills—That is all. I will reserve the right to recall the witness if anything further comes up on which I think I need his testimony.

Mr. Lewers—We will reserve the right also to recall him for further cross-examination, on sufficient notice.

The Witness—There are about four days testimony here that I have not had a chance to read over. Will I have the right to look that over and offer any suggestions about it?

Mr. Mills—Undoubtedly. I will furnish you a copy, and **[1005]** if you find that any errors have crept into it you may come back here and correct it.

RECROSS EXAMINATION
OF
CHARLES W. EBERLEIN

By Mr. Lewers:

Q. At the time when Mr. Kruttschnitt requested you or arranged for you to become acting land agent of the Southern Pacific Railroad Company, Mr. Kruttschnitt was the general manager here on the coast, was he not?

A. Yes sir.

Q. And occupied the same position that Mr. Markham did afterwards?

A. Yes sir.

Q. And Mr. Kruttschnitt had been in control, had he not, of Mr. Jerome Madden as land agent of the Southern Pacific Railroad Company?

A. I presume he had. I don't remember. I suppose he had, because that was prior to the time of the purchase of the Huntington interests by the Harriman system and the whole control of land matters was here and must have been under the general manager.

Q. Now, when you first came to the coast and were engaged in your work of reorganization, you became familiar, did you not, to some extent, with the situation concerning indemnity lands?

A. I don't remember of any particular information I had. If so, it was exceedingly general, because, in the time I was here, as I have already testified to, we were very busy organizing that land accounts bureau, getting that started. **[1006]** Mr. Erastus Young was here during that six weeks that intervened between the time I came and the time I took that appointment.

Q. Who was Erastus Young?

A. He was general auditor, at that time, for the Harriman lines, and he came here to co-operate with me in regard to that particular matter. Now, the particular matter as to which I was informed at that time in regard to the Southern Pacific land department was the condition of its contract assets. There were questions arising there, simply questions of the accounting and how we should handle certain things.

Q. But what I want to get at is whether, at the time when you took charge as acting land agent, you didn't have in mind the desirability of not losing any further indemnity lands, if possible?

A. I think I was alive to that. The matter of surveys is probably one of the first things I would look into.

Q. Now, did you not learn, immediately after you took charge of the office, that the survey of Township 30-23 had been filed in the Visalia Land Office?

Mr. Mills—Objected to as leading and suggestive.

A. Now, as to whether I knew that that particular township had been filed I don't know. I think that I did find out that certain surveys—where they were now I don't know—had been made some months prior, and my recollection is that I thought the proper thing was to get all the land that we were entitled to, because we had a large amount of base.

Q. By Mr. Lewers—Well, did you give orders accordingly?

A. I gave orders to Mr. Stone to make a list, to select as much indemnity land as he could. We had a large amount of base, as I remember—50,000 acres, about—and nothing like that amount of indemnity.

Q. Well, did Mr. Stone in any way start you in this movement [1007] to select this list?

A. I don't believe he did.

Q. Did you start him?

A. I suppose I did.

Q. Well, what is your recollection upon that?

A. My recollection is just as I testified here, that I presume I asked for information as to surveys.

Mr. Mills—I move that that be stricken, as not responsive, and, moreover, as extremely vague, and based entirely upon a presumption.

Q. By Mr. Lewers—Proceed.

A. These things have to be based on presumptions, because they are exceedingly far away at this time; made no particular impression at the time, and therefore I can't testify definitely. But the natural course of proceeding would be that I looked into that condition of affairs, and told Mr. Stone, who was familiar with all the bases and all the lands, and the books—and he was the only man, by the way, in there, at that time, that was, because there were a number of men there discharged. So that it threw that work entirely on Mr. Stone, as being the only man left in the department who had sufficient knowledge by which he could make up that list. I could not have made the list up. I never did make a list up in my life. I don't know anything about it, much. But as to how that list came to be made, that is my general recollection; and I am sorry I can't make it any more particular.

Q. Well, did anyone suggest to you the making of that list?

A. No sir; not that I know of.

Q. Would it not have impressed itself upon your mind at that time if somebody had come from some other department and suggested to you that you had better make a list of the lands?

Mr. Mills—I object to that as extremely leading, and [1008] testifying into the record yourself. The witness has stated he does not recall very much about this.

A. I would have remembered that, I am very sure. But I don't think any such thing ever occurred at any time that I ever remember.

Q. By Mr. Lewers—Now, in your letter of February 22, 1908, to Mr. Conlin, which has been introduced in evidence here, you refer to protests against Mr. Dumble's activities. Now, had you made any such protests at any time prior to September 1, 1904? Did you ever have any occasion to, to your knowledge?

A. No sir; I don't think I had occasion to do so.

Q. Well, did you at any time in 1904, that you can recollect, make any protest against Mr. Dumble's activity in examining lands?

A. I can't put my finger on any specific time or any specific circumstance. I think I did at different times in conversation with Judge Cornish, possibly with Mr. Markham.

Q. Well, was that in 1904, or afterwards?

A. Well, there is another time when I can't fix dates, but coming on the heels of this matter that we have under discussion I think I had in mind the danger of anybody taking upon themselves to examine the lands not of the land department.

Q. That is, you had in mind, did you not, that the land department might in good faith go ahead without knowledge that somebody else was competent?

A. Yes sir.

Q. That is what you meant by that letter, is it not?

A. By this letter?

Q. Of February 22, 1908?

A. Oh, yes; it is evident from the letter that that is just what I meant—that I, for instance, might make a selection of lands depending on my examination, and a trained geologist might have been over that same ground without my [1009] knowledge and whether I was right or wrong I felt that inasmuch as he was connected with the Southern Pacific there might be a chance of a claim that I was charged with notice in some way. I could not be, but still the claim might be made. It must be remembered that all the time, at least, that I was in the service, it was the ruling of the department, as I understood it, that surface indications was all that governed in the matter of the selection of lands.

Q. Now, did you tell Judge Cornish, in any of your conversations, that Mr. Markham, or anybody else here, was insisting on the execution of this lease or the carrying out of it?

A. Yes. That matter was under discussion by us several times. That appeared from the letters that came up; and the Judge brought the matter up to me several times and asked me what the condition of things was in regard to that.

Q. Do you know whether Judge Cornish ever actually read the proposed lease of August 2, 1904?

A. No; I can't swear to the fact that he did. He was a fellow that never took any more trouble than he had to, and he depended upon somebody else to read it, as a usual thing, in a matter of that kind. He may have skimmed it through. I can't say.

Q. Do you remember ever seeing him examine it in your presence?

A. We had it there. I remember of our having that lease and looking at it more than once a considerable length of time; but I think likely he depended upon me to analyze it. With reference to the question asked me yesterday by Mr. Lewers with regard to the individual leases, I desire to say that I assumed that inasmuch as the lease itself carried with it the lands, the royalty provided in the general lease would control; that **[1010]** is, they were getting possession of those leases and they would be entitled to collect the royalty on the original lease and were bound by the terms of the general lease to pay only one-tenth of the royalty.

Q. That is, your understanding at that time, when you wrote these letters, was that the royalty to be received by the Southern Pacific Railroad Company would be reduced in all cases to one-tenth?

A. Yes sir.

Q. But you don't know what the actual practice under that lease was?

A. No; I can't tell you. I don't remember.

Mr. Lewers—That is all.

REDIRECT EXAMINATION
OF
CHARLES W. EBERLEIN

By Mr. Mills:

Q. I call your attention to page 1805 of the reporter's transcript, which is a portion of the description of the lands in the lease to the Kern Trading and Oil Company, and ask you if there is any reference made there to the individual leases?

A. In the descriptions of land in the Coalinga district there appears the following: "Including leases on Section 31", that is, of Town. 19 South, Range 15 East." Then, immediately under that, "Including leases on each," which has reference to Sections 1, 13, 23 and 25, Town. 20 South, Range 14 East. And following that is this language: "Including leases on Section 7", which refers to Township 20 South, Range 15 East. [1011]

(Endorsed) Equity No. In the United States Circuit Court of Appeals for the Ninth Circuit. The Southern Pacific Company, a corporation, et al., Appellants, -vs- The United States of America, Appellee, Exhibit A. To be printed. Volume II. Filed Jan. 27, 1917, Wm. M. Van Dyke, Clerk, By Chas. N. Williams, Deputy Clerk. [1011½]
Equity No. 221

IN THE DISTRICT COURT OF THE UNITED STATES FOR THE NINTH CIRCUIT SOUTHERN DISTRICT OF CALIFORNIA NORTHERN DIVISION

THE UNITED STATES OF AMERICA, Plaintiff,
-vs-
THE SOUTHERN PACIFIC COMPANY, a corporation, et al, Defendants.

EXHIBIT A.

Condensed Statement of Evidence in Transcript on Appeal as Approved by the Court and to be Printed.

VOLUME II. [1011¾]

CHARLOTTE DOROTHY CUNNINGHAM, a witness called and sworn on behalf of the plaintiff, testified as follows:

DIRECT EXAMINATION

I am a married woman and my maiden name was Abraham. My Christian name is Charlotte Dorothy and I am known by the name of Lottie. I reside in Kentfield, Marin County. During the month of September, 1905, I was employed in the Land Office of the Southern Pacific Railroad. At that time I was seventeen years of age. I was employed by Mr. George A. Stone, and our offices were in the building of the Merchants Trust Company, No. 1035 California St., San Francisco. I was stenographer for two years and then was made file clerk and continued in that capacity until September, 1906. Mr. Stone was

employed in that office at the time I left. He superintended all of the work of the office. I knew Mr. Eberlein. Anyone that came to that office to see Mr. Eberlein would have to see Mr. Stone first.

On plaintiff's exhibit KK, purporting to be a copy of a letter dated September 10th, 1904, directed to C. H. Markham, General Manager, Southern Pacific, and signed Charles W. Eberlein, Land Agent, and consisting of three pages, the letters "L" and "A" is my handwriting, and the initials on that letter "H. K." are those of Herman Koch, an employe in the Land Office the same as I was. The initials "L. A." on plaintiff's exhibit JJ are my initials and the initials "H. K." on the same exhibit are those of Mr. Herman Koch. My initials were placed there by me and Mr. Koch's by him. On plaintiff's Exhibit II and plaintiff's exhibit HH and plaintiff's exhibit GG and plaintiff's exhibit FF and plaintiff's exhibit EE and plaintiff's exhibit OO and plaintiff's exhibit LL and plaintiff's exhibit MM and plaintiff's exhibit NN and plaintiff's exhibit PP and plaintiff's exhibit QQ and plaintiff's exhibit RR and plaintiff's exhibit SS the initials "L. A." are my initials [1012] placed there by me and the initials "H. K." are Herman Koch's initials placed there by him. I did the typewriting that appears on these various documents that I have identified and which bear my initials. At the time I typed these documents I was in Oakland in the employ of the Southern Pacific Railroad Company. It was two weeks after the San Francisco fire of April 18th, 1906. I copied these various exhibits

which bear my initials from the burned originals of these letters which were handed me by Mr. Stone, who told me to copy them as they were and then compare them and hand them back to him and I let him know when I had finished them and was then told to compare them with Mr. Koch. As near as I can remember, when Mr. Stone handed me these letters he said for me to copy these papers and not to allow them to go out of my hands to anyone else in the office, none of the stenographers, but was to keep them myself, and return them to him personally. I remember this particular file of documents. They were not all handed to me at once, but several of them together. The originals were very badly burned and they had to be handled very carefully. I think I had them all together when I handed them back to Mr. Stone. I think I copied them all in one day. These documents are correct copies of the burned papers of which they purport to be copies. I know that because I would not have signed my initials to them if they had not been, and it was at Mr. Stone's instructions that I compared them with Mr. Koch. Mr. Stone told me to see that they were correct and to compare them with Mr. Koch. He told me to go over and sit on one side of the room near a little bay window of the office and compare them in an undertone, which we did. The papers from which these copies were made were very much charred and they were in no condition to be saved or kept in the files after we got through with them so they were destroyed. [1013]

CROSS EXAMINATION
OF
CHARLOTTE DOROTHY CUNNINGHAM.

I copied other papers about the same time. There were a great many files that were charred that had been saved from the fire and I had a great deal of copying and comparing to do. I worked under the instructions and direction of Mr. Stone. I followed about the same method in copying others as I did in copying these exhibits. I compared others in an undertone in the same place that I did these, but not with the same secrecy as I did these. Mr. Stone didn't tell me to keep these secret but there was an air of secrecy about the handling of these papers. He told me not to give them into the hands of any other clerk in the office. He didn't tell me why and I didn't know why, but Mr. Koch and I compared them in an undertone. I had never seen this file before the fire and knew nothing about it. I have never seen a duplicate of it. If there was a duplicate of this file in the office before the fire I didn't see it, it was not kept in the general files. This copying was done in Oakland and we only had one room in which to do our work and there was about a dozen clerks there. When Mr. Stone brought these papers to me he told me to make exact copies of them and he said "I want you to keep these papers and you return them to me after you have finished with them". I had received similar instructions from him with respect to other papers, but with reference to these it was unusual in the way he said it; it was the quietness with which

he said it. I was impressed at the time that these papers were practically private and he said little things to give me that impression. He told me I was to copy them and to hand them right back to him and not to allow them to get in the hands of any of the other clerks or anybody else in the office. When he came around he would speak in a very low undertone in his [1014] little nervous way. Mr. Stone was nervous when there was any great excitement or anything to be nervous about, that was not his general manner. He didn't always speak in such a low tone and with an air that he didn't want anyone around to hear him. From the fact that he told me to keep those and return them to him without letting the other clerks in the office have them, and that he spoke in a low tone and appeared nervous, I concluded there was something very secret and vital about those papers. I think I was too young to understand the meaning of them. While I was comparing those papers with Mr. Koch, Mr. Stone hovered around a great deal. He was rather close. He seemed to watch those papers a great deal. I think Mr. Eberlein was in the office, I don't remember exactly. I didn't hear Mr. Eberlein give any orders in connection with these papers. We received very few orders from Mr. Eberlein himself. It was after I compared the papers that Mr. Stone told me and Mr. Koch to compare them in an undertone. I think that was stated in the presence of Mr. Koch. Mr. Stone said something about "sitting over here and comparing these so that the rest won't hear," and that is all I recollect. I remem-

ber his telling us not to read so loud. There were a great many clerks gathered in that small room and there were others engaged in similar copying work and I suppose the noise from one desk would disturb the others. There might have been others copying while Mr. Koch and I were comparing these papers. Mr. Stone did not hover around any of the others. He did not remain close to me all the time, but quite a bit. Mr. Stone searched out most of the burned papers and he would go back to the table with the burned papers on it and look them over and then come back and see how we were getting along. Neither Mr. Eberlein nor Mr. Stone had a private desk in that office, nor had they private offices, it was just one pretty good sized room and they both worked at a large table running down the [1015] middle of the room made up of boards on saw-horses. Everything was out in the open and everybody was working together and everything was in considerable confusion after the fire.

REDIRECT EXAMINATION
OF
CHARLOTTE DOROTHY CUNNINGHAM.

I don't think this particular file of papers was in this endless confusion because it seemed to stand out separately.

THOMAS J. GRIFFIN, a witness called and sworn on behalf of the plaintiff, testified as follows:

DIRECT EXAMINATION

I will be fifty years old my next birthday and I re-

side in Los Angeles. From 1874 to 1904 I lived in Texas and became acquainted there with one J. B. Treadwell. His business there was oil operator. I knew E. T. Dumble, who was spoken of here as the consulting geologist of the Southern Pacific Company, at Beaumont, in Texas, and I understood that when he was there he was head geologist for the Southern Pacific Company. I first became acquainted with Mr. Treadwell in 1901. He is now located in Los Angeles and I see him nearly every day. I was pretty well acquainted with him in Texas. During the period of my acquaintanceship with Mr. Treadwell and Mr. Dumble, I was an oil operator, drilling and contracting. I was connected with the Southern Pacific Company during the year 1902 or 1903. In 1903 and 1904 I was in the employ of the Rio Bravo Oil Company, whose headquarters were at Houston, Texas. My employment was that of mechanical engineer of the fuel department. I had official connection with Mr. E. T. Dumble, but not with Mr. Treadwell, as he was not connected with the Rio Bravo Oil Company. I always considered the Rio Bravo Oil Company as a subsidiary corporation of the Southern Pacific Company. Mr. Treadwell's business down there [**1016**] in connection with the Southern Pacific Company was drilling and contracting, drilling wells and building oil tanks, storage, also buying oil for the use of the Southern Pacific Railroad. When Mr. Treadwell first came to Beaumont, I and everyone else that I knew of, considered that Mr. Treadwell was operating indepen-

dently though he was doing business for the Southern Pacific. He was buying lands, drilling wells and contracting for oil wells and buying oil. In 1903 I was at Spindletop Oil Field in Texas. That's about four and a half miles from Beaumont, near a station called Gladys on the Southern Pacific road, between Beaumont and the Gulf. I was one of the organizers of the Spindletop Power Company. I was Vice-President and General Manager. We were engaged in the business of pumping, drilling for and selling oil. We furnished power for the use of Mr. Treadwell in connection with his wells that were known as the Treadwell wells. I first learned that Mr. Treadwell was not operating for himself, but really for the Southern Pacific, in 1902. In that year Mr. Treadwell told me: "Mr. Harriman and his party from New York, on a tour of inspection, will arrive in Beaumont today and is coming out to Gladys and wants to see the Southern Pacific well flow." I says: "What wells do you have reference to, Mr. Treadwell?" "Oh," he says, "these over here in the Hogswain Tract or Southern Pacific Wells. They belong to the company. I am only here operating and paying the bills, as there is a law prohibiting the Southern Pacific Railroad Company from doing this kind of business in the state of Texas." On that occasion I met Mr. Harriman, being introduced to him by Mr. Treadwell. I talked with Mr. Harriman and Mr. Dumble in 1902 and 1903 respecting the California Oil fields and I had several conversations with Mr. Treadwell about the Elk Hills. The first conversa-

tion I ever had with Treadwell regarding the California oil fields was at his office in Gladys. He told me he had just returned from the Kern River Fields and [1017] that he had been up on the west side looking over lands and had been out with a party of geologists and had made a careful examination and that he found oil sands and indications of oil from Sunset Field to Coalinga, including the flats and the Elk Hills, or what was known at that time as the Buena Vista Hills. At that conversation with Mr. Treadwell, he asked me if I wouldn't like to ship a rig, as I had several, out to California and to put in test wells and do the necessary assessment work on some of the west side vacant lands. There was talk between Mr. Treadwell and myself at that time respecting the going into an investment with him in the acquisition of even numbered sections of land in the West Side Field of California. In that first conversation we were sitting on the outside of Mr. Treadwell's office at Gladys. He said: "Mr. Griffin, the California Oil fields have not started yet. Our geologists have gone over it carefully. The proper thing for you to do is to get a rig, ship it out there at once, and I will go in with you and will put in the same amount of money that you and your partner, M. B. Bass does; I will invest as much money as you two; you go out there and take up even sections of lands. I will attend to the legal part of it and you people do the work, and we will divide up equally." He had a large map, two feet by three feet, showing the lands. The map started about one township below old Sunset and went up as far as the Town of Coalinga, run-

ning northwest and southeast. It included the Buena Vista Hills, Lake Tulare, and the Buena Vista Lake. By the Buena Vista Hills I mean the two groups of hills including what are now known as the Elk Hills. The lower are the Buena Vista Hills next to Buena Vista Lake and the upper are the Elk Hills, near McKittrick. The map showed unsurveyed lands located in the Elk Hills covering probably two or three townships. Mr. Treadwell told me that the unsurveyed lands in the Elk Hills were lands he and the geologists of the Southern [1018] Pacific Railroad had gone over, and that that was where he wanted me to go; that the lands would be surveyed very soon and as soon as they were surveyed, the Southern Pacific Railroad would make application for patent for the odd sections and he wanted me to take up the even sections. I am now familiar with the Elk Hills. If my memory serves me right, the unsurveyed land that he showed me on the map that he wanted me to take up was in Township 30 South, Range 23 East, and included the lands involved in this suit. I became very much interested in the subject of coming out here to make that investment and I studied the map very carefully and asked Mr. Treadwell to let me have it. He said: "I can't; it is the Railroad Company's property and I can't let it out." The map showed the country by sub-divisions such as townships and sections. There was a legend on the map showing the character of the lands and there was a great deal of writing on the map. I don't know who prepared the map, but there was a geologist's name

on it, but I don't remember who it was. I interested my partner in the matter. I had five or six conversations with Mr. Treadwell with reference to coming out, besides some letters from him. We were to come out here with one or two rigs and to develop the land as soon as Mr. Treadwell reported that it had been surveyed by the Government. About ten days after Mr. Treadwell showed me this original map, he gave me a copy that he had made. I have lost that copy. I first knew that this copy was lost on April 30, 1912. When I left Texas I left a lot of papers with a storage company in Beaumont and in April of this year I went to Beaumont with Mr. Ira M. Flocker, a special Agent of the U. S. General Land Office, to look for this map and the letters I have referred to. When I got there I asked the man in charge of the storage company about my boxes and he told me that most of the things had been sold for storage and that he had shipped some of the boxes that contained papers up to a ranch near a little place [**1019**] called Haywood, about sixty miles from Beaumont. Mr. Flocker and I went up there and looked for this map and letters, but were informed by the party on the ranch there that nearly everything we had come to look for was gone—had been destroyed. I found one of the boxes out in the yard with my name on it. It was being used for a chicken coop. The party in charge there told me that the box had a lot of old papers in it and he moved it out in the yard and he dumped the papers out and tried to burn them. Some of them burned and some of them were scattered around by

the wind. We got a rake and raked under the house and found one paper there that belonged to me. It was a bill from the Letitia Rosenberg Old Women's Home of Galveston, Texas. We did not find the map or the letters from Mr. Treadwell. I am positive that this map and these letters were in the boxes that I put in storage. This map that Mr. Treadwell gave me was about two-thirds the size of the original and it was carefully laid off with sections, townships and ranges marked, showing the Buena Vista Lake, Lake Tulare; also the Buena Vista Hills. It also showed anticlines. The original map which had the name of the geologist on it contained some geological information. It was with reference to the anticlines and the probable depths at different places, in figures, showing where oil would be struck; showing also in red ink the croppings of sand at different places. It was a very carefully made map. In the spring of 1904 I had a talk with Mr. Dumble respecting particular lands near McKittrick. I had this conversation with him while I was in the employ of the Rio Bravo Company in Texas. There was no one present except Mr. Dumble and myself. Mr. Dumble was an officer of the Rio Bravo Company. The conversation came over Rio Bravo Well No. 107. We were at the well at the time and discussing the depth that the first strata of oil had been struck, where she was a gusher, and the probability of striking a lower strata and the gravity of [1020] that oil that we would find in the lower strata. He began to tell me about the low gravity oil of Kern County in the Kern Field

and Sunset and McKittrick. He said he would like to find an oil of that lower gravity, as it would be much better for fuel and not so dangerous from fire, and suggested that if Well No. 107 quit flowing or quit producing that he was going to take it up with New York and get an appropriation from New York to deepen the well and go down and make a test of it. He further said: "Mr. Griffin, the coming field is California and that is where you ought to go and get in. The territory is so large. I know every foot of it. I have been over it in person and it is so large that you can hardly put down a hole without getting oil. We own a great deal of that land. A great deal of it we haven't yet taken patents on, but we expect to." Subsequent to that I had another conversation with him in the spring of 1904 while I was in the employ of the Rio Bravo Company. We were riding together on the train and were just north of Bakersfield, going towards San Francisco, west of the Kern River Field. Mr. Dumble was sitting next to the window in the Pullman and he pointed over with his left hand and says: "Griffin, right over yonder about thirty miles is the biggest oil field in the world. I know it: so does all the rest of us know it. We have large holdings over there. I think I told you about this some time ago and you should have gone over there, or you should yet. We have large holdings and expect to have more." At that time I was riding on passes of the Southern Pacific Company. I was furnished these passes by the Southern Pacific Company for the Sunset Route, the Texas and New Orleans,

the Galveston, Houston and San Antonio, and all their other lines. I quit the employ of the Southern Pacific Company September 1, 1904, and this conversation with Mr. Dumble was prior to the time I quit the employment. I had other passes other than these which are here marked plaintiff's exhibits "EEE" [1021] and "FFF". I came to California on a pass and returned at the time I was riding with Dumble. Mr. Dumble was riding on a passbook at that time. At the time I was employed by the Rio Bravo Oil Company I kept the payroll, paid my men off by check. My check from the Rio Bravo Oil Company was sent me for my different men and upon the receipt of these checks and the payroll I would take the men to the agent of whatever railroad line I happened to be on or whatever station I was at and the agent would cash those checks, the railroad company's agents. The lines I referred to were the Texas and New Orleans, or the Louisiana and Western, or the G., H. and S. C., and what subsidiary lines I might be on. I knew C. B. Segar. In 1904 he was Secretary of the Rio Bravo Oil Company. At that time I think he was an officer of the Southern Pacific Railroad Company or the Southern Pacific Company. I know C. H. Markham. He was the President of the Rio Bravo Oil Company in 1903 and 1904, or part of 1904. Plaintiff's exhibit "GGG" is a notice from Mr. Segar, Secretary of the Rio Bravo Oil Company, notifying me of sending me my check roll No. 62 for men. I got that in the course of my business and official connection with that Company. The exhibit

reads as follows: "Rio Bravo Oil Company, General Office, Houston, Texas. Greenwell Fay, President, E. T. Dumble, Vice President, C. B. Segar, Secretary, B. C. Cushman, Treasurer, Houston, Texas, July 14, 1904. Mr. T. J. Griffin, Welsh, Louisiana. Dear Sir: I beg to hand you herewith pay-check roll No. 62 covering time certificates issued in favor your men for work done in July, which go to agent at Welsh by express this day. The certificates will be cashed when the men are identified by you. Yours truly, C. B. Segar, Secretary. J. W. W. C." I received orders from Mr. Dumble all the time. He it was that I took orders from. He or Mr. Markham. I received this letter marked plaintiff's exhibit "HHH" from Dumble. It reads as follows: "Houston, Texas, June 28, 1904. Erection of 10,000 bbl [**1022**] tank—Sour Lake: Mr. T. J. Griffin, Sour Lake, Texas. Dear Sir: Please hurry the erection of the 10,000 barrel tank at Sour Lake as much as possible. We may have to put it into use on very short notice and I would like to have it ready. Keep me advised promptly progress of work. Yours very truly, E. T. Dumble C CC to TJG Beaumont."

CROSS EXAMINATION OF THOMAS J. GRIFFIN.

I came to San Francisco last Saturday morning a week ago and have been here continuously since that time, and have been staying at the Goodfriend Hotel. I don't think there is a night since I have been

here that I have not been there. At five or half past five last night I was in my room at the Goodfriend Hotel. I did not call Mr. Lewers up at that time over the telephone and give my name as Franklin, and I did not tell Mr. Lewers that a lady by the name of Mrs. Brown would call upon him in the morning at half past eight o'clock in regard to this case. I did not this morning send a lady who went by the name of Mrs. Brown to Mr. Lewers' office to make a business proposition with him in connection with my testimony and she did not later report to me that there was nothing doing. I positively did not tell her that I had in my possession the letters and maps and that Mr. Lewers could have them for a consideration. I don't know the name of a woman Mr. Lewers referred to. I never heard of her. I positively did not have a conversation with any woman this morning with reference to this case. I have not been to a cafe this week with any woman nor have I been to any place of entertainment or amusement with a woman this week. There was no woman in my room last evening at five o'clock. There has never been a woman in my room. I was in R. H. Herron's office in the Monadnock Block from 4:30 o'clock until just before half past five, talking to Mr. [1023] Nellis, and I left the Monadnock Block and came up Market Street and met Mr. Mills at Powell Street. I have discussed nothing with any woman this forenoon. No woman asked me any question with reference to this case this forenoon and no woman told me that she was going to Mr. Lewers' office to see him this morn-

ing and no woman told me that she had been to Mr. Lewers' office to see him this morning. The only women that I have talked to this morning are Mrs. Goodfriend and her sister at the hotel. I have not talked with any woman during the last week while I was here in San Francisco about what I was going to testify to in this case and I have not told any woman about my conversation with Prof. Dumble or with J. B. Treadwell that I know of. I should think that I am in a position to remember. I was not under the influence of liquor during any of that time. I never was under the influence of liquor, drunk, in my life. I have been perfectly sober during all of the time I have been in San Francisco. I have told some friends of mine who are living in San Francisco that I am here as a witness for the United States Government in a suit against the Southern Pacific. I don't know whether I mentioned the name of Mr. Dumble. One of the friends I talked to was an oil man. I never spoke to Mrs. Goodfriend or her sister anything about this case. I did not tell any woman in San Francisco or elsewhere this last week that J. B. Treadwell had written me any letters, nor did I tell any woman in San Francisco or elsewhere this last week that J. B. Treadwell had talked with me about the Elk Hills or about Township 30 South, Range 23 East, nor that E. T. Dumble had discussed with me the Elk Hills or any land in that vicinity. I ceased to work for the Southern Pacific Company on September 1, 1904. I was not discharged and have never been bitter against the Company. I did not make any

threats that I would get Mr. E. T. Dumble if I ever got the chance, as he and I are the very best of friends. The first conversation I ever had [1024] with any representatives of the Government in reference to this case was in April of this year at Los Angeles. I did not make any written statement and have never signed an affidavit. I went to McKittrick in 1906 and had never been there before. I cannot say when I first learned that the Elk Hills were once called the Buena Vista Hills. The map that Mr. Treadwell showed me covered from about six miles south of Sunset up to Coalinga. It was quite a large map, probably two and one-half by three feet. I cannot say how many anticlines it showed nor where they were. I did not look at them. The map showed McKittrick, but I don't remember whether it showed any anticlines at Coalinga. I do remember that it showed anticlines somewhere. It showed wells with indications that there were producing wells in the Sunset Field and one or two wells in the McKittrick. This map did not show any wells in Township 30 South, Range 23 East. I can't say whether this map showed any anticlines in Township 30 South, Range 23 East. Mr. Treadwell told me at Gladys in the latter part of 1901 that he had been out with a party of geologists and that he went over the land from south of Sunset to Coalinga. I don't remember the name of the geologists that he was with. I do not know whether he mentioned Josiah Owen or not. I have met Mr. Owen. I don't know whether he said those geologists were working for the Southern Pa-

cific or not, but I inferred it. I had a second conversation with Mr. Treadwell at the same place about ten days after the first conversation. At the second conversation he showed me a map and gave me a copy, stating that this was a copy of the field made on a small scale. He said a great deal besides and wanted me to come to California and drill some on that land, that is, the vacant government land adjacent to the Southern Pacific land; land in McKittrick and near Coalinga. He pointed out Township 30 South, 23 East; I am positive of that. He wanted me to go and drill there as soon as [**1025**] it would be surveyed and accepted by the Government. I am positive he pointed out Township 30 South, Range 23 East. There were probably fifty townships on that map, but I remember distinctly this particular township. I have no feeling whatever against the Southern Pacific; positively none. I came here completely a disinterested witness. I was brought here. My first conversation with Mr. Mills was in the Post Office Building in Los Angeles, in the corridor near his office. That is the first time any Government man has talked to me about the case. I went there to see how the case was getting along. I heard they were up there taking testimony. I did not go up there and volunteer some information. We were discussing the case and I told him I knew something about it. I think that was the first intimation that he had that I knew anything about it. I met Mr. Mills in the corridor and we had a talk and he invited me to his office and in our general conversation I mentioned

something about the Elk Hills, that I had an automobile and was an oil operator and had been superintendent of a couple of leases up there and that I had been traveling over the oil fields for the last two or three years in a machine. My business in seeing Mr. Mills was that I have in the Lost Hills and in the Devil's Den District placed some locations on Government lands with the intention of going on there and developing it and as the trouble came up over these lands I thought that probably I would get some information as to what the Government probably intended to do, and that is the reason I had the conversation the first time with Mr. Mills. In the conversation with Mr. Treadwell with reference to the California Oil Fields, he also mentioned Township 11-23, which is near Maricopa, and Township 25-20, which is in the Lost Hills. That is where I am located now. He also mentioned Township 30 South, Range 32 East, near the Buena Vista Lake. This is northwest of the Lake. I have never been on that [**1026**] township. I was in the Elk Hills in 1906 and 1907. I did not make any locations there. I examined the Elk Hills with a view of going there and getting some of the land. I was in Section 28, Township 30 South, Range 23 East, and I was in Section 12, Township 30 South, Range 23 East. I was in there especially as they had been located by other parties who wanted to sell their locations. I did not purchase any locations in there. I made partial arrangements to go in with others, with a man by the name of Blather. Nothing was ever

done with those arrangements and I acquired no interest because I didn't have any money.

REDIRECT EXAMINATION OF THOMAS J. GRIFFIN.

Township 30 South, Range 23 East, is between Buena Vista Lake and McKittrick. When I spoke of Township 30 South, Range 32 East, I meant Township 32 South, Range 30 East.

(Thereupon counsel for the defendant announced: "That is all for the present. We reserve the right to recall Mr. Griffin for cross examination at a later period if we so desire.") [1027]

On Monday, July 29, 1912, at ten o'clock A. M., personally appeared before the special examiner, pursuant to the adjournment, Willis N. Mills, Special Assistant Attorney General; and thereupon the special examiner designated Tuesday, July 30th, 1912, at 10 o'clock A. M. at the court room of the United States Commerce Court, in the Southern Building, corner of 15th and H Streets, Washington, D. C., as the time and place at which the further hearing herein should be resumed.

On Tuesday, July 30, 1912, at ten o'clock A. M., the further taking of testimony herein was resumed pursuant to the adjournment, Willis N. Mills, Special Assistant Attorney General, appearing on behalf of the plaintiff, and Charles R. Lewers, Esq. and A. A. Hoehling, Jr., Esq., appearing on behalf of the defendants.

Whereupon the following proceedings were had:

Mr. Lewers—I desire to move that the name of Mr. A. A. Hoehling, Jr., be entered as attorney for the defendants in this case, with the exception of the Equitable Trust Company of New York. [1028]

Mr. Mills—Very well. In response to a request made upon Mr. Shoup, one of the solicitors for the defendants, except the Equitable Trust Company of New York, there was handed to me the manual from the Secretary's files of the Southern Pacific and auxiliary companies, for the years 1902 to 1909, inclusive, which I desire to offer in evidence. Said manuals are respectively marked plaintiff's exhibits "I I I" to "P P P" and received in evidence subject to any objection which counsel for the defendants desire to interpose at the next session.

From Manual No. 1, for the year 1902, marked Plaintiff's Exhibit "I I I", the title page and list of the auxiliary companies found on pages 1, 3, 6, 7, 8, 10, 12, 13, 14, 15, 17, 18, 19, 20, 22, 23, 24 and 25; and on pages 26, 27, 28, 29, 30, 33, 34 and 35, the matter appearing thereon; also a continuation of the list of the subsidiary companies found on pages 36, 37, 39 and 41 of the manual—all of which I now read into the record, as follows:

SOUTHERN PACIFIC and AUXILIARY COMPANIES.

———OOO———

Manual No. 1—July 1, 1902.

———OOO———

Notice:—Officers receiving this volume will con-

fer a favor on the undersigned by giving him early notice of errors noted, or changes necessary, in the following pages.

Alex. Millar, Secretary. **[1029]**

(Secretary's Files)

SOUTHERN PACIFIC and AUXILIARY COMPANIES

Manual No. 1—1902.

—of—

Annual Meetings, Directors, Officers, Capital Stock, Funded Debt, Etc. July 1, 1902.

. . . . . .

(1)

Carson & Colorado Railway Company. Incorporated, California, February 27, 1892, for 50 years.

(2)

Central Pacific Railroad Company. Incorporated, California, August 22, 1870, for 50 years.

. . . . . .

(3)

Central Pacific Railway Company. Incorporated, Utah, July 29, 1899, for 50 years.

. . . . . .

(6)

Cromwell Steam Ship Company. Incorporated. New Jersey, July 13, 1889, for 50 years.

. . . . . .

(7)

The Direct Navigation Company. Incorporated, Texas, July 8, 1896, for 50 years. **[1030]**

. . . . . .

(8)

The Galveston, Harrisburg & San Antonio Rail-

way Co. Incorporated, Texas, February 11, 1850, for Indefinite Time.

. . . . . .

(10)

The Galveston, Houston & Northern Railway Co. Incorporated March 30, 1899, for 50 years.

. . . . . .

(12)

Gila Valley, Globe & Northern Railway Company. Incorporated, Arizona, January 15, 1894, for 50 years.

. . . . . .

(13)

The Gulf, Western Texas & Pacific Railway Co. Incorporated, Texas, September 5, 1850—under name of The San Antonio and Mexican Gulf Railway Company—which Company was consolidated with the "Indianola Railroad Company", under the name and style of the Gulf, Western Texas & Pacific Ry. Co., August 4, 1870.

. . . . . .

(14)

Houston & Shreveport Railroad Company. Incorporated, Louisiana, October 8, 1891. No definite period stated.

. . . . . .

(15)

Houston & Texas Central Railroad Company. In-

corporated, Texas, August 1, 1889, for 50 years. [1031]

. . . . . .

(17)

The Houston, East & West Texas Railway Company. Incorporated, Texas, March 11, 1875, for 50 years from Completion of Road.

. . . . . .

(18)

The Iberia & Vermillion Railroad Company. Incorporated, Louisiana, April 6, 1891.

. . . . . .

(19)

Louisiana Western Railroad Company. Incorporated, Louisiana, Acts of Legislature of 1878, with perpetual succession, approved March 30, 1878.

. . . . . .

(20)

Morgan's Louisiana & Texas Railroad & Steamship Company. Incorporated, Louisiana, March 8, 1877, for 40 years.

. . . . . .

(22)

The New York, Texas & Mexican Railway Co. Incorporated, Texas, October 18, 1880, for 50 years.

. . . . . .

(23)

Oregon & California Railroad Co. Incorporated, Oregon, March 17, 1870, for 99 years.

. . . . . .

(24)

Pacific Mail Steamship Co. Incorporated, New

York, April 12, 1848, for 20 years, since extended to 1908. [1032]

. . . . . .

(25)

San Antonio & Aransas Pass Railway Co. Incorporated, Texas, August 28, 1884, for 50 years.

. . . . . .

(26)

SOUTHERN PACIFIC COMPANY. Incorporated by Act of the General Assembly of the State of Kentucky, approved March 17, 1884, in perpetuity, for the purpose of unifying in management lines of railroad extending from New Orleans, La., to San Francisco, Cal., to Portland, Ore., and to Ogden, Utah.

. . . . . .

CONTROLLED PROPERTIES.

The Southern Pacific Company is the principal owner of the capital stock of the following companies, and operates them under leases to it: Central Pacific Railway, Oregon and California Railroad, Southern Pacific Railroad of California, Southern Pacific Railroad of Arizona, Southern Pacific Railroad of New Mexico, Southern Pacific Coast Railway.

The Southern Pacific is also the principal owner of the capital stock of the following companies, which are operated by their own organizations, viz: Galveston, Harrisburg & San Antonio Railway, Texas and New Orleans Railroad, New York, Texas & Mexican Railway.

(27)

Houston & Texas Central Railroad, Galveston, Houston & Northern Railroad, Carson & Colorado Railway; Houston, East & West Texas Railway, Houston & Shreveport Railroad, Gila Valley, Globe & Northern Railway; and it operates under leases from the Atchison, Topeka & Santa Fe the lines of the New Mexico & [1033] Arizona Railroad and the Sonora Railway Companies.

The Morgan's Louisiana & Texas Railway & Steamship Co. is the principal owner of stocks in the following companies, which are operated under their own organizations, viz: Gulf, Western Texas & Pacific Railway, Direct Navigation Co., Iberia & Vermillion Railroad.

In March, 1902, the Southern Pacific Railroad of California, the Southern Pacific Railroad of Arizona and the Southern Pacific Railroad of New Mexico were consolidated into a new California company, the Southern Pacific Railroad Co.

The total extent of the lines owned by all the companies is 9,145 miles, and the total operated 8,941 miles.

The Southern Pacific Company also operates steamship lines from New York to New Orleans, La., and Galveston, Tex., New Orleans to Havana, and to Bluefields, Nicaragua, as well as ferry, harbor and river lines in Louisiana, Texas and California, aggregating about 5,365 miles, and owns 25 ocean steamers. In 1900 the company acquired a control-

ling interest in the stock of the Pacific Mail Steamship Co.

The Mojave Division of the Southern Pacific Railroad, 242 miles, is leased to the Atchison, Topeka & Santa Fe Railway Company, until 1979, at an annual rental of $218,133.

DIRECTORS (15), elected April 9, 1902:
T. J. Collidge, Jr., Boston.
Wm. D. Cornish, New York.
George J. Gould, Lakewood, N. J.
E. H. Harriman, Arden, N. Y. [1034]
Edwin Hawley, New York.
H. E. Huntington, San Francisco.
James H. Hyde, New York.
Otto H. Kahn, Morriston, N. J.
(x) J. W. Mackey, New York.
D. O. Mills, New York.
Winslow S. Pierce, New York.
Jacob H. Schiff, New York.
James Speyer, New York.
James Stillman, New York.
Charles H. Tweed, Chairman, New York.
(x) Deceased.

(28)

EXECUTIVE COMMITTEE (8), elected April 11, 1902:
E. H. Harriman, Chairman.
George J. Gould.
Edwin Hawley.
Otto H. Kahn.

Jacob H. Schiff.
James Speyer.
James Stillman.
Charles H. Tweed.

OFFICERS

EXECUTIVE DEPARTMENT, elected April 11, 1902:

E. H. Harriman, President, Arden, N. Y.
H. E. Huntington, Vice-President, San Francisco.
Charles H. Tweed, Second Vice-President, New York. [1035]
J. C. Stubbs, Third Vice-President, Chicago.
J. Kruttschnitt, Fourth Vice-President, San Francisco.
Alex. Millar, Clerk and Secretary, New York.
N. T. Smith, Treasurer, San Francisco.
A. K. Van Deventer, Assistant Treasurer, New York.
W. V. S. Thorne, Assistant Secretary (July 17, 1902), New York.
G. T. Klink, Assistant Secretary, San Francisco.
John B. Weaver, Assistant Clerk, Beechmont, Ky.

Alex Millar, Transfer Agent for Bonds and Stock, New York.
Otto C. Kahn, Asst. Trans. Agent for Bonds and Stock, New York.
A. K. Van Deventer, Assistant Secretary for signing Bonds and Stock, New York.
Union Trust Co., Registrar of Transfers, New New York.

LEGAL DEPARTMENT:

Charles H. Tweed, General Counsel, New York.

W. F. Herrin, Chief Counsel, San Francisco.

J. E. Foulds, Attorney, San Francisco.

D. R. Sessions, Claims Attorney, San Francisco.

E. B. Ryan, Tax Attorney, San Francisco.

W. W. Bretherton, Right of Way, Tax and Claim Agent, Portland.

ACCOUNTING DEPARTMENT:

Wm. Mahl, Comptroller, New York.

H. S. Bradt, Assistant Comptroller, New York.

[1036]

Erastus Young, General Auditor, Omaha.

G. T. Klink, Auditor, San Francisco.

C. J. Wilder, Assistant Auditor, San Francisco.

D. W. Horsburg, Freight Auditor, San Francisco.

H. S. Lincoln, Assistant Freight Auditor, San Francisco.

E. E. Holton, Ticket Auditor, San Francisco.

(29)

TRAFFIC DEPARTMENT:

J. C. Stubbs, Traffic Director, Chicago.

B. Campbell, Assistant Traffic Director, Chicago.

Wm. Sproule, Freight Traffic Manager, San Francisco.

G. W. Luce, General Freight Agent, San Francisco.

S. N. Bostwick, Assistant General Freight Agent, San Francisco.

Thos. A. Graham, Assistant General Freight Agent, San Francisco.

Chas. S. Fay, Assistant General Freight Agent, New Orleans.

W. E. Coman, General Freight and Passenger Agent, Lines in Oregon, Portland.

G. A. Parker, Asst. Gen. Freight and Pass. Agent, Los Angeles.

E. O. McCormick, Passenger Traffic Manager, San Francisco.

S. F. B. Morse, Asst. Passenger Traffic Manager, Houston.

T. H. Goodman, General Passenger Agent, San Francisco.

R. A. Donaldson, Asst. Gen. Pass. Agent, San Francisco.

Jas. Horsburg, Jr., Asst. Gen. Pass. Agent, San Francisco.

H. R. Judah, Asst. Gen. Pass. Agent, San Francisco.

M. L. Robbins, General Passenger Agent, Houston.

F. S. Decker, Asst. Gen. Pass. and Ticket Agent, New Orleans.

E. B. Carson, General Baggage Agent, San Francisco. [1037]

TRANSPORTATION DEPARTMENT:

J. Kruttschnitt, General Manager, San Francisco.

Jas. Agler, Manager, San Francisco.

R. Koehler, Manager, Lines in Oregon, Portland.

N. H. Foster, Manager's Assistant, San Francisco.

Geo. F. Richardson, Supt. of Transportation, Pacific and Atlantic Systems, San Francisco.

J. H. Wallace, Engineer, Maintenance of Way, Superintendent Telegraph, San Francisco.

H. J. Small, Gen. Supt. Motive Power, San Francisco.

Ben Welch, Master Car Builder, Sacramento.

ENGINEERING DEPARTMENT:

Wm. Hood, Chief Engineer, San Francisco.

LAND DEPARTMENT:

Wm. H. Mills, Land Agent, C. P. R. R., San Francisco.

Jerome Madden, Land Agent, S. P. R. R., San Francisco.

Geo. H. Andrews, Acting Land Agent, Portland.

C. C. Gibbs, Land Commissioner, San Antonio.

SUPPLY DEPARTMENT:

R. P. Schwerin, Manager, Purchases and Supplies, San Francisco.

R. Stevenson, Assistant Manager, Purchases and Supplies, San Francisco.

(30)

Southern Pacific Railroad Company. Incorporated, California, Arizona, and New Mexico, March 10, 1902, for 50 years. [**1038**]

* * * * * * * * * * * * * * * * * * * *

FUNDED DEBT.

First Mortgage Gold Bonds of 1875, Series A to G, inclusive; authorized, $46,000,000; issued $39,285,000 (outstanding June 30, 1902, $30,212,500), viz:

A. Authorized and issued, $15,000,000; dated April 1, 1875; due April 1, 1905; outstanding June 30, 1902..$12,636,500

B.	Authorized and issued, $5,000,000; dated October 1, 1875; due October 1, 1905; outstanding June 30, 1902.	4,521,000
C.	Authorized and issued, $5,000,000, dated October 1, 1876, due October 1, 1906; outstanding June 30, 1902.	4,016,000
D.	Authorized and issued, $5,000,000; dated October 1, 1876; due October 1, 1906; outstanding June 30, 1902.	3,915,000
E.	Authorized and issued, $5,000,000; dated April 1, 1882; due April 1, 1912; outstanding June 30, 1912..	3,160,000
F.	Authorized, $5,000,000; issued $4,285,000; dated April 1, 1882; due April 1, 1912; outstanding June 30, 1912	1,964,000
G.	Authorized, $6,000,000; never issued.	

Interest, 6 per cent., gold, payable April and October. Trustees, D. O. Mills, New York, and Homer S. King, San Francisco. [**1039**]

(34)

Southern Pacific Branch Railway First Mortgage Gold Bonds: authorized, $9,000,000; issued, $3,578,000; dated April 1, 1887; due April 1, 1937; outstanding $3,533,000. Interest, 6 per cent., gold, payable April and October. Trustee, Union Trust Company of San Francisco.

Stockton & Copperopolis R. R. First Mortgage Gold Bonds: authorized and issued, $500,000; dated January 1, 1875; due January 1, 1905. Interest 5

per cent., gold, payable January and July. Trustee, J. L. Willcutt, San Francisco.

Southern Pacific R. R. First Consolidated Mortgage Gold Bonds of 1893: authorized, $58,000,000, and such additional amount of bonds as may be sufficient to retire, bond for bond, outstanding first mortgage bonds of the S. P. R. R. Co., issued under the mortgage dated April 1, 1875; issued, $27,144,000; dated November 1, 1893; due November 1, 1937; outstanding $27,125,000. Interest 5 per cent., gold, payable May and November. Trustee, Central Trust Company of New York.

Note:—Bonds issued under the Stockton & Copperopolis R. R. Mortgage of January 1, 1875, Southern Pacific Branch Ry. Mortgage of November 24, 1886, and Southern Pacific R. R. Co. Mortgage of August 25, 1888 (now satisfied and discharged), to be retired out of the above-authorized issue of $58,000,000.

Northern Railway First Mortgage Gold Bonds of 1877: authorized $6,300,000; issued, $5,156,000; dated January 1, 1877; due January 1, 1907. Interest, 6 per cent., gold, payable January and July. Trustees, Eugene Kelly and Henry B. Laidlaw, both of the city of New York. [1040]

Northern Railway First Mortgage Gold Bonds of 1888: authorized, $21,000,000; issued, $4,751,000; dated October 1, 1888; due October 1, 1938. Interest, 5 per cent., gold, payable April and October. Trustee, Union Trust Company of New York.

Northern California Railway First Mortgage Gold

Bonds: authorized, $1,100,000; issued, $1,074,000; dated November 1, 1889; due November 1, 1929. Interest, 5 per cent., gold, payable June and December. Trustee, California Safe Deposit & Trust Co. of San Francisco.

California Pacific R. R. First Morgtage Gold Bonds: authorized and issued, $2,250,000; dated January 1, 1867; due January 1, 1912. Interest, 4½ per cent., gold, payable January and July. Trustees, Jas. O'B. Gunn and Chas. E. Green, both of the City of San Francisco, Cal.

California Pacific R. R. Second Mortgage Gold Bonds: authorized and issued, $1,600,000; dated August 9, 1871; due January 1, 1911. Interest, 4½ per cent., gold, payable January and July. Trustees, Jas. O'B. Gunn and Chas. E. Green, both of the City of San Francisco, Cal.

(35)

California Pacific R. R. Third Mortgage Gold Bonds: authorized, $2,000,000; issued, $1,998,500; dated July 1, 1875; due July 1, 1905. Interest, 6 per cent., gold, payable January and July. Trustee, Stephen T. Gage, of the City of San Francisco, Cal.

California Pacific R. R. Third Mortgage Gold Bonds: authorized and issued, $1,000,000; dated July 1, 1875; due July 1, 1905. Interest, 3 per cent., gold, payable January [1041] and July. Trustee, Stephen T. Gage, of the City of San Francisco, Cal.

Southern Pacific R. R. (of Arizona) First Mortgage Gold Bonds: authorized and issued, $10,000,000; Series A, amounting to $6,000,000; dated March 1,

1879; due March 1, 1909, and Series B, $4,000,000; dated March 1, 1880; due March 1, 1909, and Interest, 6 per cent., gold, payable January and July. Trustees, I. W. Hellman and Union Trust Company, both of the City of San Francisco, Cal.

Southern Pacific R. R. of New Mexico First Mortgage Gold Bonds: authorized, $5,000,000; issued, $4,180,000; dated January 1, 1881; due January 1, 1911. Interest, 6 per cent., gold, payable January and July. Trustees, I. W. Hellman and Union Trust Company, both of the city of San Francisco, Cal.

DIRECTORS (11), elected June 5, 1902:

E. H. Harriman, Arden, N. Y.

Alvinza Hayward, San Francisco.

I. W. Hellman, San Francisco.

Wm. F. Herrin, San Francisco.

Homer S. King, San Francisco.

J. Kruttschnitt, San Francisco.

J. S. Slauson, Los Angeles.

N. T. Smith, San Francisco.

Chas. H. Tweed, New York.

J. L. Willcutt, San Francisco.

Jas. K. Wilson, San Francisco.

OFFICERS, elected June 5, 1902:

E. H. Harriman, President, Arden, N. Y.

Chas. H. Tweed, Vice-President, New York. **[1042]**

J. Kruttschnitt, Second Vice-President, San Francisco.

N. T. Smith, Treasurer, San Francisco.

A. K. Van Deventer, Assistant Treasurer, New York.

J. L. Willcutt, Secretary, San Francisco.

Alex. Millar, Assistant Secretary, New York.

Alex Millar, Transfer Agent for Registered Bonds, New York.

Chas. P. Lincoln, Transfer Agent for Registered Bonds, San Francisco.

(36)

Southern Pacific Terminal Co. Incorporated, Texas, July, 6, 1901, for 50 years.

. . . . . .

(37)

South Pacific Coast Railway Company. Incorporated, California, May 23, 1887, for 50 years.

. . . . . .

(39)

Texas & New Orleans Railroad Co. Incorporated, Texas, September 1, 1856, for 90 years.

. . . . . .

(41)

Wells Fargo & Company. Established, New York, March 18, 1852, and incorporated, Colorado, February 5, 1866. Charter unlimited as to duration.

. . . . . .

Manual No. 2, for the year 1903, marked plaintiff's exhibit "J J J", the title page, the index and such matter as [**1043**] appears on pages 21, 30, 33, 34, 35, 36, 37, 40, 41 and 42, as follows, which I will read into the record:

SOUTHERN PACIFIC and AUXILIARY COMPANIES.

———oOo———

Manual No. 2—July 1, 1903.

———oOo———

Notice:—Officers receiving this volume will confer a favor on the undersigned by giving him early notice of errors noted, or changes necessary, in the following pages.

Alex Millar, Secretary.

(Secretary's Files.)

SOUTHERN PACIFIC and AUXILIARY COMPANIES.

Manual No. 2—1903.

of

Annual Meetings, Directors, Officers, Capital Stock, Funded Debt, etc.

July 1, 1903.

. . . . . .

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(21)

Kern Trading & Oil Co. Incorporated, California, May 22, 1903, for 50 years.

ANNUAL MEETING may be held at San Francisco on last Saturday in May. Notices to be pub-

lished in one or more papers [1045] in the City and County of San Francisco, as the Directors may determine, at least ten days previously, or to be given in writing by the President to each stockholder personally.

Meetings of Directors, whenever necessary, on call of President.

No specification for close of fiscal year.

CAPITAL STOCK: authorized and issued, $1,000,000. Shares $100 each.

DIRECTORS (5), elected May 22, 1903:

J. E. Foulds, Berkeley.

J. Kruttschnitt, San Francisco.

J. H. Wallace, San Francisco.

J. L. Willcutt, San Francisco.

W. A. Worthington, San Francisco.

OFFICERS, elected May 22, 1903:

J. Kruttschnitt, President, San Francisco.

J. E. Foulds, Vice-President, Berkeley.

J. L. Willcutt, Secretary, San Fancisco.

N. T. Smith, Treasurer, San Francisco.

(30)

Rio Bravo Oil Co. Incorporated, Texas, March 3, 1903, for 50 years.

ANNUAL MEETING, Houston, Texas, second Monday in January. Written notice to be given at least five days previously.

Meeting of Directors can be held at any time.

Fiscal year closes June 30.

CAPITAL STOCK: authorized, $1,000,000. Shares $100 each.

DIRECTORS (5), elected March 13, 1903:
C. C. Barry, Houston. [1046]
E. T. Dumble, Houston.
C. H. Markham, Houston.
C. B. Seger, Houston.
W. G. Van Vleck, Houston.
OFFICERS, elected March 13, 1903:
C. H. Markham, President, Houston.
E. T. Dumble, Vice-President, Houston.
C. B. Seger, Secretary, Houston.
B. C. Cushman, Treasurer, Houston.

(33)

Southern Pacific Company. Incorporated by Act of the General Assembly of the State of Kentucky, approved March 17, 1884, in perpetuity, for the purpose of unifying in management lines of railroad extending from New Orleans, La., to San Francisco, Cal., to Portland, Ore., and to Ogden, Utah.

. . . . . .

CONTROLLED PROPERTIES.

The Southern Pacific Company is the principal owner of the capital stock of the following companies, and operates them under leases to it: Central Pacific Railway, Oregon and California Railroad, Southern Pacific Railroad, South Pacific Coast Railway.

The Southern Pacific is also the principal owner of the capital stock of the following companies, which are operated by their own organizations, viz: Galveston, Harrisburg & San Antonio Railway, Texas

(34)

and New Orleans Railroad, Louisiana Western Rail-

road, Maricopa and Phoenix and Salt River Valley Railroad, New York, Texas & [1047] Mexican Railway, Houston & Texas Central Railroad, Galveston, Houston & Northern Railroad, Carson & Colorado Railway, Houston East and West Texas Railway, Houston & Shreveport Railroad, Gila Valley, Globe and Northern Railway; owner of half the stock of the Sunset Railroad Co.; and it operates under leases from the Atchison, Topeka & Santa Fe the lines of the New Mexico & Arizona Railroad and the Sonora Railway companies.

The Morgan's Louisiana & Texas Railway & Steamship Co. is the principal owner of stocks of the following companies, which are operated under their own organizations, viz.: Gulf, Western Texas & Pacific Railway, Direct Navigation Co., Iberia & Vermillion Railroad.

In March, 1902, the Southern Pacific Railroad of California, the Southern Pacific Railroad of Arizona and the Southern Pacific Railroad of New Mexico were consolidated into a new company, the Southern Pacific Railroad Co.

The Southern Pacific Company also operates steamship lines from New York to New Orleans, La., and Galveston, Tex., New Orleans to Havana, and to Bluefields, Nicaragua, as well as ferry, harbor, and river lines in Louisiana, Texas and California, aggregating about 5,365 miles, and owns 25 ocean steamers. In 1900 the company acquired a controlling interest in the stock of the Pacific Mail Steamship

Co., and in 1902 purchased the property of the Cromwell Steamship Co.

The Mojave Division of the Southern Pacific Railroad, 242 miles, is leased to the Atchison, Topeka & Santa Fe Railway Company until 1979, at an annual rental of $218,133.

DIRECTORS (15), elected April 9, 1902: [1048]
T. J. Coolidge, Jr., Boston.
Wm. D. Cornish, New York.
George J. Gould, Lakewood, N. Y.
E. H. Harriman, Arden, N. Y.
Edwin Hawley, New York.
H. E. Huntington, San Francisco.
James H. Hyde, New York.
Otto H. Kahn, Morriston, N. J.
(x) J. W. Mackey, New York.
D. O. Mills, New York.
Winslow S. Pierce, New York.
Jacob H. Schiff, New York.
James Speyer, New York.
James Stillman, New York.
Charles H. Tweed, New York.
(x) Deceased.

(35)

EXECUTIVE COMMITTEE (8), elected April 11, 1902:
E. H. Harriman, Chairman.
George J. Gould.
Edwin Hawley.
Otto H. Kahn.
Jacob H. Schiff.

James Speyer.
James Stillman.
Charles H. Tweed.

OFFICERS

EXECUTIVE DEPARTMENT, elected April 11, 1902:

E. H. Harriman, President, Arden, N. Y. [1049]
H. E. Huntington, Vice President, San Francisco.
Second Vice-President.
J. C. Stubbs, Third Vice-President, Chicago.
J. Kruttschnitt, Fourth V.-P. and Asst. to Prest., San Francisco.
Alex Millar, Clerk and Secretary, New York.
Jos. Hellen, Assistant Secretary, New York.
G. T. Klink, Assistant Secretary, San Francisco.
John B. Weaver, Assistant Clerk, Beechmont, Ky.
N. T. Smith, Treasurer, San Francisco.
A. K. Van Deventer, Assistant Treasurer, New York.

Alex Millar, Transfer Agent for Bonds and Stock, New York.
Otto C. Kahn, Asst. Trans. Agent for Bonds and Stock, New York.
Union Trust Company, Registrar of Transfers, New York.

LEGAL DEPARTMENT:

W. F. Herrin, Chief Counsel, San Francisco.
Maxwell Evarts, Attorney, New York.
J. E. Foulds, Attorney, San Francisco.
D. R. Sessions, Claims Attorney, San Francisco.

E. B. Ryan, Tax Attorney, San Francisco.

W. W. Bretherton, Right of Way, Tax and Claim Agent, Portland.

ACCOUNTING DEPARTMENT:

Wm. Mahl, Comptroller, New York.

H. S. Bradt, Assistant Comptroller, New York.

Erastus Young, Omaha. **[1050]**

G. T. Klink, Auditor, San Francisco.

C. J. Wilder, Assistant Auditor, San Francisco.

D. W. Horsburg, Freight Auditor, San Francisco.

H. S. Lincoln, Assistant Freight Auditor, San Francisco.

E. E. Holton, Ticket Auditor, San Francisco.

(36)

J. C. Stubbs, Traffic Director, Chicago.

B. Campbell, Asst. Traffic Director, Chicago.

Wm. Sproule, Freight Traffic Mgr., Pacific System, San Francisco.

H. A. Jones, Freight Traffic Mgr., Atlantic System, New Orleans.

G. W. Luce, General Freight Agent, San Francisco.

S. N. Bostwick, Asst. General Freight Agent, San Francisco.

Thos. A. Graham, Asst. General Freight Agent, San Francisco.

Chas. S. Fay, Asst. General Freight Agent, New Orleans.

W. E. Coman, General Freight and Passenger Agent, Lines in Oregon, Portland.

G. A. Parkyns, Asst. Gen. Freight and Pass. Agent, Los Angeles.

E. O. McCormick, Passenger Traffic Mgr., San Francisco.

T. H. Goodman, General Passenger Agent, San Francisco.

R. A. Donaldson, Asst. Gen. Passenger Agent, San Francisco.

Jas. Horsburg, Jr., Asst. Gen. Passenger Agent, San Francisco.

H. R. Judah, Asst. Gen. Passenger Agent, San Francisco.

M. L. Robbins, General Passenger Agent, Houston.

F. S. Decker, Asst. Gen. Pass. and Ticket Agent, New Orleans. [1051]

E. B. Carson, General Baggage Agent, San Francisco.

Thornwell Fay, General Agent, New Orleans.

TRANSPORTATION DEPARTMENT:

J. Kruttschnitt, General Manager, San Francisco.

Jas. Agler, Manager, San Francisco.

R. Koehler, Manager, Lines in Oregon, Portland.

N. H. Foster, Manager's Assistant, San Francisco.

Geo. F. Richardson, Supt. of Transportation, Pacific and Atlantic Systems, San Francisco.

J. H. Wallace, Engineer, Maintenance of Way, San Francisco.

A. E. Roome, Superintendent Telegraph, San Francisco.

H. J. Small, General Supt. Motive Power, San Francisco.

E. A. Gilbert, Master Car Builder, San Francisco.

W. C. Farrington, Mgr. Atlantic Coast S. S. Lines, New Orleans.

ENGINEERING DEPARTMENT:

Wm. Hood, Chief Engineer, San Francisco.

LAND DEPARTMENT:

Wm. H. Mills, Land Agent, C. P. R. R., San Francisco.

Jerome Madden, Land Agent, S. P. R. R., San Francisco.

Geo. H. Andrews, Acting Land Agent, Portland.

O. C. Gibbs, Land Commissioner, San Antonio.

SUPPLY DEPARTMENT:

W. V. S. Thorne, Director of Purchases, New York..

R. P. Schwerin, Manager, Purchases and Supplies, San Francisco.

R. Stevenson, Asst. Mgr., Purchases and Supplies, San Francisco. [**1052**]

(37)

Southern Pacific Railroad Company. Incorporated, California Arizona, and New Mexico, March 10, 1902, for 50 years.

. . . . . .

(40)

First Mortgage Gold Bonds of S. P. R. R. Co., of California, of 1875, Series A to G, inclusive; authorized $46,000,000; issued, $39,285,000; outstanding $29,187,500, viz.:

A. Authorized and issued, $15,000,000; dated April 1, 1875; due April 1, 1905; outstanding $12,505,500

B. Authorized and issued, $5,000,000; dated October 1, 1875, due October 1, 1905; outstanding 4,045,000

C. Authorized and issued, $5,000,000; dated October 1, 1876; due October 1, 1906; outstanding 3,766,000

D. Authorized and issued, $5,000,000; dated October 1, 1876; due October 1, 1906; outstanding 3,747,000

E. Authorized and issued, $5,000,000; dated April 1, 1882; due April 1, 1912; outstanding 3,160,000

F. Authorized, $5,000,000; issued, $4,285,000; dated April 1, 1882; due April 1, 1912; outstanding 1,964,000

G. Authorized, $6,000,000; never issued. [1053]

Interest, 6 per cent., gold, payable April and October. Trustees, D. O. Mills, New York, and Homer S. King, San Francisco.

(41)

Southern Pacific Branch Railway First Mortgage Gold Bonds; authorized, $9,000,000; issued, $3,578,000; dated April 1, 1887; due April 1, 1937; outstanding, $3,533,000. Interest, 6 per cent., gold, payable April and October. Trustee, Union Trust Company of San Francisco.

Stockton & Copperopolis R. R. First Mortgage Gold Bonds; authorized, issued, and outstanding, $500,000; dated January 1, 1875; due January 1, 1905. Interest, 5 per cent., gold, payable, January and July. Trustee, J. L. Willcutt, San Francisco.

Southern Pacific R. R., of California, First Consolidated Mortgage Gold Bonds of 1893; authorized, $58,000,000, and such additional amount of bonds as may be sufficient to retire, bond for bond, outstanding first mortgage bonds of the S. P. R. R. Co., issued under the mortgage dated April 1, 1875; issued, $27,674,000; dated November 1, 1893; due November 1, 1937; outstanding $27,579,000. Interest, 5 per cent., gold, payable May and November. Trustee, Central Trust Company of New York.

NOTE:—Bonds issued under the Stockton & Copperopolis R. R. Mortgage of January 1, 1875, Southern Pacific Branch Ry. Mortgage of November 24, 1886, and Southern Pacific R. R. Co. Mortgage of August 25, 1888 (now satisfied and discharged), to be retired out of the above-authorized issue of $58,000,000. [**1054**]

Northern Railway First Mortgage Gold Bonds of 1877; authorized, $6,300,000; issued and outstanding, $5,156,000; dated January 1, 1877; due January 1, 1907. Interest, 6 per cent., gold, payable January and July. Trustees, Eugene Kelly and Henry B. Laidlaw, both of the City of New York.

Northern Railway First Mortgage Gold Bonds of 1888; authorized, $21,000,000; issued and outstanding, $4,751,000; dated October 1, 1888; due October 1, 1938. Interest, 5 per cent., gold, payable April and October. Trustee, Union Trust Company of New York.

Northern California Railway First Mortgage Gold Bonds: authorized, $1,100,000; issued and out-

standing, $1,074,000; dated November 1, 1889; due November 1, 1929. Interest 5 per cent., gold, payable June and December. Trustee, California Safe Deposit & Trusts Co., of San Francisco.

California Pacific R. R. First Mortgage Gold Bonds: authorized and issued, $2,250,000; outstanding, $2,232,000; dated January 1, 1867; due January 1, 1912. Interest, 4½ per cent., gold, payable January and July. Trustees, Jas. O'B. Gunn and Chas. E. Green, both of the City of San Francisco.

California Pacific R. R. Second Mortgage Gold Bonds: authorized and issued, $1,600,000; outstanding, $1,595,000; dated August 9, 1871; due January 1, 1911. Interest 4½ per cent., gold, payable January and July. Trustees, Jas. O'B. Gunn and Chas. E. Green, both of the City of San Francisco, Cal. [1055]

(42)

California Pacific R. R. Third Mortgage Gold Bonds: authorized, $2,000,000; issued, and outstanding, $1,998,500; dated July 1, 1875; due July 1, 1905. Interest, 6 per cent., gold, payable January and July. Trustee, Stephen T. Gage, of the City of San Francisco, Cal.

California Pacific R. R. Third Mortgage Gold Bonds: authorized, issued, and outstanding, $1,000,000; dated July 1, 1875; due July 1, 1905. Interest, 3 per cent., gold, payable January and July. Trustee, Stephen T. Gage, of the City of San Francisco, Cal.

Southern Pacific R. R. (of Arizona) First Mortgage Gold Bonds: authorized, issued and outstand-

ing, $10,000,000; Series A, amounting to $6,000,000; dated March 1, 1879; due March 1, 1909, and Series B, $4,000,000; dated March 1, 1880; due March 1, 1910. Interest, 6 per cent., gold, payable January and July. Trustees, I. W. Hellman and Union Trust Company, both of the city of San Francisco, Cal.

Southern Pacific R. R. of New Mexico First Mortgage Gold Bonds: authorized, $5,000,000; issued and outstanding, $4,180,000; dated January 1, 1881; due January 1, 1911. Interest, 6 per cent., gold, payable January and July. Trustees, I. W. Hellman and Union Trust Company, both of the City of San Francisco, Cal.

DIRECTORS (11), elected April 14, 1903:

E. H. Harriman, Arden, N. Y.

Alvinza Hayward, San Francisco.

I. W. Hellman, San Francisco.

Wm. F. Herrin, San Francisco. [**1056**]

Homer S. King, San Francisco.

J. Kruttschnitt, San Francisco.

J. S. Slauson, Los Angeles.

N. T. Smith, San Francisco.

Wm. Sproule, San Francisco.

J. L. Willcutt, San Francisco.

Jas. K. Wilson, San Francisco.

OFFICERS, elected April 14, 1903:

E. H. Harriman, President, Arden, N. Y.

Vice-President.

J. Kruttschnitt, Second Vice-President, San Francisco.

N. T. Smith, Treasurer, San Francisco.

A. K. Van Deventer, Assistant Treasurer, New York.

J. L. Willcutt, Secretary, San Francisco.

Alex. Millar, Assistant Secretary, New York.

Alex. Millar, Transfer Agent for Bonds, New York.

Chas. P. Lincoln, Transfer Agent for Bonds, San Francisco.

Jos. Hellen and O. C. Kahn, New York, are Acting Transfer Agents for Bonds of S. P. R. R. Cos. of California and of New Mexico.

From Manual No. 3, for the year 1904, marked Plaintiff's Exhibit "K K K", the title page and index and such matter as appears on pages 22, 31, 35, 37, 38, 39, 40, 43, 44 and 45, which I will read into the record as follows: [1057]

SOUTHERN PACIFIC and AUXILIARY COMPANIES.

Manual No. 3—July 1, 1904.

Notice: Officers receiving this volume will confer a favor on the undersigned by giving him early notice of errors noted, or changes necessary, in the following pages.

Alex Millar, Secretary.

(Secretary's Files.)

SOUTHERN PACIFIC and AUXILIARY COMPANIES.

Manual No. 3—1904.

of

Annual Meetings, Directors, Officers, Capital Stock, Funded Debt, Etc.

July 1, 1904.

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KERN TRADING & OIL CO.

Incorporated, California, May 22, 1903, for 50 years.

ANNUAL MEETING may be held at San Francisco on last Saturday in May. Notice to be published in one or more papers in the City and County of San Francisco, as the Directors may determine, at least ten days previously, or to be given in writing by the President to each Stockholder personally.

Meetings of Directors, whenever necessary, on call of President.

No specification for close of fiscal years.

CAPITAL STOCK: authorized and issued, $1,000,000. Shares $100 each.

DIRECTORS (5) elected June 22, 1904:

E. T. Dumble, San Francisco.
J. E. Foulds, Berkeley.
C. H. Markham, San Francisco.
J. H. Wallace, San Francisco.
J. L. Wilcutt, San Francisco.

OFFICERS, elected June 23, 1904:

C. H. Markham, President, San Francisco.
E. T. Dumble, Vice-President, Berkeley.
J. L. Wilcutt, Secretary, San Francisco.
N. T. Smith, Treasurer, San Francisco.

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RIO BRAVO OIL CO. [1060]

Incorporated, Texas, March 3, 1903, for 50 years.

ANNUAL MEETING, Houston, Texas, second Monday in January.

Written notice to be given at least five days previously.

Meetings of Directors can be held at any time.

Fiscal year closes June 30.

CAPITAL STOCK: authorized $1,000,000. Shares $100 each.

DIRECTORS (5), elected January 12, 1904:

C. C. Barry, Houston.
E. T. Dumble, Houston.
C. H. Markham, San Francisco.
C. B. Seger, Houston.
W. G. Van Vleck, Houston.

OFFICERS, elected March 13, 1903:

C. H. Markham, President, San Francisco.
E. T. Dumble, Vice-President, Houston.
C. B. Seger, Secretary, Houston.
B. C. Cushman, Treasurer, Houston.

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CONTROLLED PROPERTIES.

The Southern Pacific Company is the principal owner of the capital stock of the following companies, and operates them under leases to it: Central Pacific Railway, Oregon and California Railroad, Southern Pacific Railroad, South Pacific Coast Railway.

The Southern Pacific is also the principal owner of the capital stock of the following companies, which are operated [1061] by their own organizations, viz: Galveston, Harrisburg & San Antonio Railway, Texas and New Orleans Railroad, Louisiana Western Railroad, Maricopa and Phoenix and Salt River Valley Railroad, New York, Texas & Mexican Railway, Houston & Texas Central Railroad, Galveston, Houston and Northern Railroad, Carson & Colorado Railway, Houston East & West Texas Railway, Houston & Shreveport Railroad, Gila Valley, Globe & Northern Railway; owner of half the stock of the Sunset Railroad Co.; and it operates under leases from the Atchison, Topeka & Santa Fe the lines of the New Mexico & Arizona Railroad and the Sonora Railway Companies.

The Morgan's Louisiana & Texas Railway &

Steamship Co. is the principal owner of stocks of the following companies, which are operated under their own organizations, viz: Gulf, Western Texas & Pacific Railway, Direct Navigation Co., Iberia & Vermillion Railroad.

In March, 1902, the Southern Pacific Railroad of California, the Southern Pacific Railroad of Arizona and the Southern Pacific Railroad of New Mexico were consolidated into a new company, the Southern Pacific Railroad Co.

The Southern Pacific Company also operates steamship lines from New York to New Orleans, La., and Galveston, Tex., New Orleans to Havana, and to Bluefields, Nicaragua, as well as ferry, harbor and river lines in Louisiana, Texas and California, aggregating about 4,906 miles, and owns 21 ocean steamers. In 1900 the company acquired a controlling interest in the stock of the Pacific Mail Steamship Co., and in 1902 purchased the property of the Cromwell Steamship Co.

The Mojave Division of the Southern Pacific Railroad, 242 [**1062**] miles, is leased to the Atchison, Topeka & Santa Fe Railway Company, until 1979, at an annual rental of $218,133.

DIRECTORS (15), elected April 6, 1904:

Wm. D. Cornish, New York.
Maxwell Evarts, New York.
George J. Gould, Lakewood, N. J.
E. H. Harriman, Arden, N. Y.
Marvin Hughitt, Chicago.
H. E. Huntington, San Francisco.

James H. Hyde, New York.
Otto H. Kahn, Morristown, N. J.
D. O. Mills, New York.
Winslow S. Pierce, New York.
Jacob H. Schiff, New York.
James Speyer, New York.
James Stillman, New York.
Charles H. Tweed, New York.
A. K. Van Deventer, New York.

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EXECUTIVE COMMITEE (5), elected June 9, 1904:

E. H. Harriman, Chairman.
George J. Gould.
Jacob H. Schiff.
James Stillman.
Charles H. Tweed.

OFFICERS.

EXECUTIVE DEPARTMENT, elected June 9, 1904:

E. H. Harriman, President, Arden, N. Y.
Wm. D. Cornish, Vice-President (June 24), New York. [**1063**]
J. C. Stubbs, Vice-President, Chicago.
J. Kruttschnitt, Vice-President, Chicago.
C. H. Markham, Vice-President, San Francisco.
Alex. Millar, Clerk and Secretary, New York.
Joseph Hellen, Asst. Clerk and Asst. Secretary, New York.
John B. Weaver, Assistant Clerk, Beechmont, Ky.
N. T. Smith, Treasurer, San Francisco.

A. K. Van Deventer, Assistant Treasurer, New York.

Geo. M. Thornton, Cashier (March 31, 1904), New York.

Alex. Millar, Transfer Agent, New York.

Otto C. Kahn, Asst. Transfer Agent, New York.

A. M. Waldron, Asst. Transfer Agent for Stock, New York.

Union Trust Co., Registrar of Transfers, New York.

LEGAL DEPARTMENT:

New York.

R. S. Lovett, Counsel.

Maxwell Evarts, Attorney.

San Francisco.

W. F. Herrin, Chief Counsel.

J. E. Foulds, Attorney.

D. R. Sessions, Claims Attorney.

E. B. Ryan, Tax Attorney.

Portland.

W. W. Bretherton, Right of Way, Tax, and Claim Agent.

ACCOUNTING DEPARTMENT:

Wm. Mahl, Comptroller, New York.

H. S. Bradt, Assistant Comptroller, New York.

Erastus Young, General Auditor, Omaha. [1064]

G. T. Klink, Auditor, San Francisco.

C. J. Wilder, Assistant Auditor, San Francisco.

D. W. Horsburg, Freight Auditor, San Francisco.

H. S. Lincoln, Assistant Freight Auditor, San Francisco.

E. E. Holton, Ticket Auditor, San Francisco.

(38)

TRAFFIC DEPARTMENT:

J. C. Stubbs, Traffic Director, Chicago.

B. Campbell, Asst. Traffic Director, Chicago.

E. O. McCormick, Asst. Traffic Director, Chicago.

Wm. Sproule, Freight Traffic Manager, San Francisco.

H. A. Jones, Freight Traffic Mgr., Atlantic System, New Orleans.

G. W. Luce, General Freight Agent, San Francisco.

S. N. Bostwick, Asst. General Freight Agent, San Francisco.

Thos. A. Graham, Asst. General Freight Agent, San Francisco.

W. H. Masters, Traffic Manager, New Orleans.

Chas. S. Fay, General Freight Agent, New Orleans.

W. E. Coman, General Freight and Passenger Agent, Lines in Oregon, Portland.

G. A. Parkyns, Asst. Gen. Freight and Pass. Agent, Los Angeles.

Chas. S. Fee, Passenger Traffic Manager, San Francisco.

T. H. Goodman, General Passenger Agent, San Francisco.

R. A. Donaldson, Asst. Gen. Passenger Agent, San Francisco.

Jas. Horsburg, Jr., Asst. Gen. Passenger Agent, San Francisco.

H. R. Judah, Asst. Gen. Passenger Agent, San Francisco.

F. E. Batturs, Asst. Gen. Pass. and Ticket Agent, New Orleans.

E. B. Carson, General Baggage Agent, San Francisco. [1065]

J. B. Richardson, General Agent, New Orleans.

TRANSPORTATION DEPARTMENT:

J. Kruttschnitt, Director and Maint. and Operation, Chicago.

B. A. Worthington, Assistant Director of Maintenance and Operation, Chicago.

C. H. Markham, General Manager, Lines between El Paso, Reno and Ashland, San Francisco.

E. E. Calvin, General Manager, Oregon Lines, Portland.

W. H. Bancroft, Gen. Mgr., Lines East of Reno, Salt Lake City.

Jas. Alger, Manager, San Francisco.

J. P. O'Brien, Gen. Supt., Oregon Lines, Portland.

Geo. F. Richardson, Supt. of Transportation, San Francisco.

J. A. Naugle, Asst. Gen. Mgr., Sonora Ry., Guaymas, Mex.

J. H. Wallace, Engineer, Maintenance of Way, San Francisco.

A. E. Roome, Superintendent of Telegraph, San Francisco.

H. J. Small, General Supt. Motive Power, San Francisco.

W. C. Farrington, Mgr. Atlantic Coast S. S. Lines, New York.

ENGINEERING DEPARTMENT:

Wm. Hood, Chief Engineer, San Francisco.

(39)

LAND DEPARTMENT:

Wm. H. Mills, Land Agent, C. P. R. R., San Francisco.

Chas. W. Eberlein, Acting Land Agt., S. P. R. R., San Francisco.

Geo. H. Andrews, Acting Land Agent, Portland.

C. C. Gibbs, Land Commissioner, San Antonio.

SUPPLY DEPARTMENT:

W. V. S. Thorne, Director of Purchases, New York.

R. Stevenson, Manager, Purchases and Supplies, San Francisco.

H. W. Ellicott, Asst. Mgr., Purchases and Supplies, San Francisco. [1066]

MEDICAL DEPARTMENT:

F. K. Ainsworth, Chief Surgeon and Hospital Manager, San Francisco.

(40)

SOUTHERN PACIFIC RAILROAD COMPANY.

Incorporated, California, Arizona, and New Mexico, March 10, 1902, for 50 years.

. . . . . .

(43)

FUNDED DEBT.

First Mortgage Gold Bonds of S. P. R. R. Co., of California of 1875, Series A to G, inclusive; authorized, $46,000,000; issued $39,285,000; outstanding, $29,011,000.

A.	Authorized and issued, $15,000,000; dated April 1, 1875; due April 1, 1905; outstanding....	$12,449,000
B.	Authorized and issued, $5,000,000; dated October 1, 1875; due Oct. 1, 1905; outstanding.....	4,045,000
C.	Authorized and issued, $5,000,000; dated October 1, 1876; due October 1, 1906; outstanding....	3,766,000
D.	Authorized and issued, $5,000,000; dated October 1, 1876; due October 1, 1906; outstanding.....	3,635,000
E.	Authorized and issued, $5,000,000; dated April 1, 1882; due April 1, 1912; outstanding.....	3,152,000
F.	Authorized, $5,000,000; issued $4,285,000; dated April 1, 1882; due April 1, 1912; outstanding	1,964,000
G.	Authorized, $6,000,000; never issued.	

Interest, 6 per cent., gold, payable April and October. Trustees, D. O. Mills, New York, and Homer S. King, San Francisco. [**1067**]

(44)

Southern Pacific Branch Railway First Mortgage

Gold Bonds; authorized, $9,000,000; issued $3,578,000, dated April 1, 1887; due April 1, 1937; outstanding, $3,533,000. Interest, 6 per cent., gold, payable April and October. Trustee, Union Trust Company of San Francisco.

Stockton & Copperopolis R. R. First Mortgage Gold Bonds; authorized, issued and outstanding, $500,000; dated January 1, 1875; due January 1, 1905. Interest 5 per cent., gold, payable January and July. Trustee, J. L. Wilcutt, San Francisco.

Southern Pacific R. R. of California, First Consolidated Mortgage Gold Bonds of 1893; authorized, $58,000,000, and such additional amount of bonds as may be sufficient to retire, bond for bond, outstanding first mortgage bonds of the S. P. R. R. Co., issued under the mortgage dated April 1, 1875; issued, $28,766,000; dated November 1, 1893; due November 1, 1937; outstanding, $28,652,000. Interest, 5 per cent., gold, payable May and November. Trustee, Central Trust Company of New York.

NOTE:—Bonds issued under the Stockton & Copperopolis R. R. Mortgage of January 1, 1875, Southern Pacific Branch Ry. Mortgage of November 24, 1886, and Southern Pacific R. R. Co. Mortgage of August 25, 1888 (now satisfied and discharged), to be retired out of the above authorized issue of $58,000,000.

Northern Railway First Mortgage Gold Bonds of 1877: authorized, $6,300,000; issued and outstanding, $5,156,000; dated January 1, 1877; due January 1, 1907. Interest, 6 per cent., gold, payable January

and July. Trustees, Eugene Kelly and Henry B. Laidlaw, both of the City of New York.

Northern Railway First Mortgage Gold Bonds of 1888: author[**1068**]ized, $21,000,000; issued and outstanding $4,751,000; dated October 1, 1888; due October 1, 1938. Interest, 5 per cent., gold, payable April and October. Trustee, Union Trust Company of New York.

Northern California Railway First Mortgage Gold Bonds: authorized $1,100,000; issued and outstanding, $1,074,000; dated November 1, 1889; due November 1, 1929. Interest, 5 per cent., gold, payable June and December. Trustee, California Safe Deposit & Trust Co., of San Francisco.

California Pacific R. R. First Mortgage Gold Bonds: authorized and issued, $2,250,000; outstanding, $2,232,000; dated January 1, 1867; due January 1, 1912. Interest, 4½ per cent., gold, payable January and July. Trustees, Jas. O'B. Gunn and Chas. E. Green, both of the City of San Francisco, Cal.

California Pacific R. R. Second Mortgage Gold Bonds: authorized and issued, $1,600,000; outstanding, $1,595,000; dated August 9, 1871; due January 1, 1911. Interest 4½ per cent., gold, payable January and July. Trustees, Jas. O'B. Gunn and Chas. E. Green, both of the City of San Francisco, Cal.

(45)

California Pacific R. R. Third Mortgage Gold Bonds: authorized, $2,000,000; issued and outstanding, $1,998,500; dated July 1, 1875; due July 1, 1905. Interest, 6 per cent., gold, payable January and July.

Trustee, Stephen T. Gage of the City of San Francisco, Cal.

California Pacific R. R. Third Mortgage Gold Bonds: authorized, issued, and outstanding, $1,000,000; dated July 1, 1875; due July 1, 1905. Interest, 3 per cent., gold, payable January and July. Trustee, Stephen T. Gage of the City of San Francisco, Cal. [**1069**]

Southern Pacific R. R. (of Arizona) First Mortgage Gold Bonds: authorized, issued and outstanding, $10,000,000; Series A, amounting to $6,000,000; dated March 1, 1879; due March 1, 1909, and Series B, $4,000,000; dated March 1, 1880; due March 1, 1910. Interest, 6 per cent., gold, payable January and July. Trustees, I. W. Hellman and Union Trust Company, both of the City of San Francisco, Cal.

Southern Pacific R. R. of New Mexico First Mortgage Gold Bonds: authorized, $5,000,000; issued and outstanding, $4,180,000; dated January 1, 1881; due January 1, 1911. Interest 6 per cent., gold, payable January and July. Trustees, I. W. Hellman and Union Trust Company, both of the City of San Francisco, Cal.

DIRECTORS (11), elected April 12, 1904:

F. K. Ainsworth (May 19), San Francisco.
E. H. Harriman, Arden, N. Y.
I. W. Hellman, San Francisco.
Wm. F. Herrin, San Francisco.
Homer S. King, San Francisco.
C. H. Markham (May 12), San Francisco.
J. S. Slauson, Los Angeles.

N. T. Smith, San Francisco.

Wm. Sproule, San Francisco.

J. L. Willcutt, San Francisco.

Jas. K. Wilson, San Francisco.

OFFICERS, elected April 14, 1904:

E. H. Harriman, President, Arden, N. Y.

———— ——, Vice-President.

C. H. Markham, Second Vice-President (May 19), San Francisco [1070]

N. T. Smith, Treasurer, San Francisco.

A. K. Van Deventer, Assistant Treasurer, New York.

J. L. Willcutt, Secretary, San Francisco.

Alex. Millar, Assistant Secretary, New York.

Alex. Millar, Transfer Agent, New York.

Chas. P. Lincoln, Transfer Agent for Bonds, San Francisco.

Joseph Hellen and O. C. Kahn, New York, are Acting Transfer Agents for Bonds of S. P. R. R. Cos. of California and of New Mexico.

From Manual No. 4, of the year 1905, marked Plaintiff's Exhibit " L L L," the title page, index, and such matter as appears on pages 24, 40, 41, 42, 43, 44, 45, 48, 49 and 50, with such emendations and corrections as appear therein in red ink, which I will read into the record as follows:

SOUTHERN PACIFIC and AUXILIARY COMPANIES.

—oOo—

Manual No. 4—July 1, 1905.

—oOo—

Notice:—Officers receiving this volume will confer

a favor on the undersigned by giving him early notice of errors noted, or changes necessary, in the following pages.

Alex. Millar, Secretary.

(Secretary's Files)

SOUTHERN PACIFIC and AUXILIARY COMPANIES.

Manual No. 4—1905

of [1071]

Annual Meetings, Directors, Officers, Capital Stock, Funded Debt, Etc.

July 1, 1905.

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Southern Pacific Terminal Co. 51
Southern Pacific Coast Railway Co. 52
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Sunset Railroad Co. 55
Texas & New Orleans Railroad Co. 56
Wells Fargo & Co. 58
Fallon Railway Co. 101½
Merced Canon Ry. Co. 261½
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(24)

KERN TRADING & OIL CO.

Incorporated, California, May 22, 1903, for 50 years.

ANNUAL MEETING may be held at San Francisco on last Saturday in May. Notice to be published in one or more papers in the City and County of San Francisco, as the Directors may determine, at least ten days previously, or to be given in writing by the President to each stockholder personally.

Meetings of Directors, whenever necessary, on call of President. [**1073**]

No specification for close of fiscal year.

CAPITAL STOCK: authorized and issued, $1,000,000. Shares $100 each.

DIRECTORS (5), elected May 29, 1905:

E. E. Calvin, San Francisco.
E. T. Dumble, San Francisco.
J. E. Foulds, Berkeley.
J. H. Wallace, San Francisco.
J. L. Wilcutt, San Francisco.

OFFICERS, elected May 29, 1905:

E. E. Calvin, President, San Francisco.
E. T. Dumble, Vice-President, Berkeley.
J. L. Wilcutt, Secretary, San Francisco.
N. T. Smith, Treasurer, San Francisco.

(40)

SOUTHERN PACIFIC COMPANY.

Incorporated by Act of General Assembly of the State of Kentucky approved March 17, 1884, in perpetuity, for the purpose of unifying in management

lines of railroad extending from New Orleans, La., to San Francisco, Cal., to Portland, Ore., and to Ogden, Utah.

. . . . . .

CONTROLLED PROPERTIES

The Southern Pacific Company is the principal owner of the capital stock of the following companies, and operates them under leases to it: Central Pacific Railway, Oregon and California Railroad, Southern Pacific Railroad, South Pacific Coast Railway. [1074]

(41)

The Southern Pacific is also the principal owner of the capital stock of the following companies, which are operated by their own organizations, viz. Galveston, Harrisburg & San Antonio Railway, Texas and New Orleans Railroad, Louisiana Western Railroad, Maricopa and Phoenix and Salt River Valley Railroad, New York Texas and Mexican Railway, Houston & Texas Central Railroad, Galveston Houston and Northern Railroad, Carson & Colorado Railway, Houston East and West Texas Railway, Houston & Shreveport Railroad, Gila Valley Globe & Northern Railway, Pacific Mail Steamship, Morgan's Louisiana & Texas Railroad & Steamship; and owner of half the stock of the Sunset Railroad Co.; and it operates under leases from the Atchison, Topeka & Santa Fe the lines of the New Mexico & Arizona Railroad and the Sonora Railway Companies.

The Morgan's Louisiana & Texas Railroad & Steamship Co. is the principal owner of stocks of the

following companies, which are operated under their own organizations, viz: Gulf Western Texas & Pacific Railway, Direct Navigation Co., Iberia & Vermilion Railroad.

In March, 1902, the Southern Pacific Railroad of California, the Southern Pacific Railroad of Arizona and the Southern Pacific Railroad of New Mexico were consolidated into a new company, the Southern Pacific Railroad Co.

The Southern Pacific Co. also operates steamship lines from New York to New Orleans, La., and Galveston, Texas, and owns 14 ocean steamers. The Pacific Mail Steamship Co. operates lines from San Francisco to ports in Japan, China, and South and Central America, and owns 16 ocean steamers. The Morgan's Louisiana & Texas Railroad & Steamship Co. operates a steam[1075]ship line from New Orleans to Havana, and owns 4 ocean steamers. Companies controlled by the Southern Pacific Co. also operate ferry, harbor, and river lines in Louisiana, Texas, and California, aggregating about 5,000 miles.

The Mojave Division of the Southern Pacific Railroad, 242 miles, is leased to the Atchison, Topeka & Santa Fe Railway Company, until 1979, at an annual rental of $218,133.

DIRECTORS (15), elected April 5, 1905:

Wm. D. Cornish, New York.
Maxwell Evarts (June 20, 1905), New York.
E. H. Harriman, Arden, N. Y.
Marvin Hughitt, Chicago.
H. E. Huntington, San Francisco.

James H. Hyde, New York.
Otto H. Kahn, Morristown, N. J.
R. S. Lovett (June 20, 1905), New York.
Clarence H. Mackay, New York.
D. O. Mills, New York.
M. L. Schiff (April 13, 1905), New York.
James Speyer, New York.
James Stillman, New York.
Charles H. Tweed, New York.
David Willcox, New York.

(42)

EXECUTIVE COMMITEE (5), elected April 13, 1905:

E. H. Harriman, Chairman.
R. S. Lovett (June 20, 1905).
M. L. Schiff.
James Stillman.
Charles H. Tweed. [**1076**]

OFFICERS

EXECUTIVE DEPARTMENT, elected April 13, 1905:

E. H. Harriman, President, Arden, N. Y.
Wm. D. Cornish, Vice-President, New York.
J. C. Stubbs, Vice-President, Chicago.
J. Kruttschnitt, Vice-President, Chicago.
E. E. Calvin, Vice-President, San Francisco.
Alex. Millar, Clerk and Secretary, New York.
Joseph Hellen, Asst. Clerk and Asst. Secretary, New York.
John B. Weaver, Assistant Clerk, Beechmont, Ky.

C. B. Seger, Assistant Secretary (March 16, 1905), San Francisco.

N. T. Smith, Treasurer, San Francisco.

A. K. Van Deventer, Assistant Treasurer, New York.

Geo. M. Thornton, Cashier (March 31, 1904), New York.

Alex. Millar, Transfer Agent, New York.

Otto C. Kahn, Asst. Transfer Agent, New York.

W. H. James, Asst. Transfer Agent for Stock, New York.

H. B. Taylor, Asst. Transfer Agent for Stock, New York.

Union Trust Co., Registrar of Transfers of Common Stock, New York.

Guaranty Trust Co., Registrar of Transfers of Preferred Stock, New York.

LEGAL DEPARTMENT:

New York.

R. S. Lovett, Counsel.

Maxwell Evarts, Attorney.

San Francisco.

W. F. Herrin, Chief Counsel. [1077]

P. F. Dunne, General Attorney.

J. E. Foulds, Attorney.

D. R. Sessions, Claims Attorney.

E. B. Ryan, Tax Attorney.

Portland.

J. W. Morrow, Right of Way and Tax Agent.

(43)

ACCOUNTING DEPARTMENT:

Wm. Mahl, Comptroller, New York.

H. S. Bradt, Assistant Comptroller, New York.

Erastus Young, General Auditor, Omaha.

C. B. Seger, Auditor, San Francisco.

C. J. Wilder, Assistant Auditor, San Francisco.

D. W. Horsburgh, Freight Auditor, San Francisco.

H. S. Lincoln, Assistant Freight Auditor, San Francisco.

E. E. Holton, Ticket Auditor, San Francisco.

TRAFFIC DEPARTMENT:

J. C. Stubbs, Traffic Director, Chicago.

E. O. McCormick, Asst. Traffic Director, Chicago.

P. C. Stohr, Asst. Traffic Director, Chicago.

Wm. Sproule, Freight Traffic Manager, San Francisco.

H. A. Jones, Freight Traffic Mgr., Atlantic System, New Orleans.

G. W. Luce, General Freight Agent, San Francisco.

S. N. Bostwick, Asst. General Freight Agent, San Francisco.

Thos. A. Graham, Asst. General Freight Agent, San Francisco.

Chas. S. Fay, General Freight Agent, New Orleans.

W. E. Coman, General Freight and Passenger Agent, Lines in Oregon, Portland.

G. A. Parkyns, Asst. Gen. Freight and Pass. Agent, Los Angeles. [1078]

Chas. S. Fee, Passenger Traffic Manager, San Francisco.

T. H. Goodman, General Passenger Agent, San Francisco.

R. A. Donaldson, Asst. Gen. Passenger Agent, San Francisco.

Jas. Horsburg, Jr., Asst. Gen. Passenger Agent, San Francisco.

H. R. Judah, Asst. Gen. Passenger Agent, San Francisco.

F. E. Batturs, Asst. Gen. Pass. and Ticket Agent, New Orleans.

E. B. Carson, General Baggage Agent, San Francisco.

J. B. Richardson, General Agent, New Orleans.

TRANSPORTATION DEPARTMENT:

J. Kruttschnitt, Director of Maint. and Operation, Chicago.

W. B. Scott, Assistant Director of Maintenance and Operation, Chicago.

E. E. Calvin, General Manager, Pacific System, San Francisco.

J. P. O'Brien, General Manager, Oregon Lines, Portland.

W. H. Bancroft, Gen. Mgr., Lines East of Reno, Salt Lake City.

W. S. Palmer, Gen. Supt., Northern District, San Francisco.

R. H. Ingram, Gen. Supt., Southern District, Los Angeles.

M. J. Buckley, Gen. Supt., Oregon Lines, Portland.

Geo. F. Richardson, Supt. of Transportation, San Francisco.

J. A. Naugle, Asst. Gen. Mgr., Sonora Ry., Guaymas, Mex.

J. H. Wallace, Engineer, Maintenance of Way, San Francisco.

(44)

A. E. Roome, Superintendent Telegraph, San Francisco.

H. J. Small, General Supt. Motive Power, San Francisco.

C. W. Jungen, Mgr. Atlantic Coast S. S. Lines, New York.

ENGINEERING DEPARTMENT:

Wm. Hood, Chief Engineer, San Francisco.

G. W. Boschke, Chief Engineer, Lines in Oregon, Portland. [1079]

LAND DEPARTMENT:

Wm. H. Mills, Land Agent, C. P. R. R., San Francisco.

Chas. W. Eberlein, Acting Land Agt., S. P. R. R. and O. & C. R. R., San Francisco.

C. C. Gibbs, Land Commissioner, San Antonio.

SUPPLY DEPARTMENT:

W. V. S. Thorne, Director of Purchases, New York.

I. O. Rhodes, Gen. Purchasing Agent, San Francisco.

H. W. Ellicott, Asst. Gen. Purchasing Agent, San Francisco.

MEDICAL DEPARTMENT:

F. K. Ainsworth, Chief Surgeon and Hospital Manager, San Francisco.

(45)

SOUTHERN PACIFIC RAILROAD COMPANY.

Incorporated, California, Arizona, and New Mexico, March 10, 1902, for 50 years.

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FUNDED DEBT.

First Mortgage Gold Bonds of S. P. R. R. Co. of California, of 1875, Series A to G, inclusive; authorized, $46,000,000; issued, $39,285,000; outstanding, $16,777,000.

A.	Authorized and issued, $15,000,000; dated April 1, 1875; due April 1, 1905; outstanding....	$ 330,000
B.	Authorized and issued, $5,000,000; dated October 1, 1875; due October 1, 1905; outstanding [1080]	3,930,000
C.	Authorized and issued, $5,000,000; dated October 1, 1876; due October 1, 1906; outstanding.....	3,766,000

D. Authorized and issued, $5,000,000; dated October 1, 1876; due October 1, 1906; outstanding..... 3,635,000

E. Authorized and issued, $5,000,000; dated April 1, 1882; due April 1, 1912; outstanding..... 3,152,000

F. Authorized, $5,000,000; issued $4,285,000; dated April 1, 1882, due April 1, 1912; outstanding. 1,964,000

G. Authorized, $6,000,000; never issued.

Interest, 6 per cent., gold, payable April and October. Trustees, D. O. Mills, New York, and Homer S. King, San Francisco.

Southern Pacific Branch Railway First Mortgage Gold Bonds; authorized, $9,000,000; issued, $3,578,000; dated April 1, 1887; due April 1, 1937; outstanding $3,533,000. Interest, 6 per cent., gold, payable April and October, Trustee, Union Trust Company of San Francisco.

(49)

Southern Pacific R. R. of California, First Consolidated Mortgage Gold Bonds of 1893; authorized, $58,000,000, and such additional amount of bonds as may be sufficient to retire, bond for bond, outstanding first mortgage bonds of the S. P. R. R. Co., issued under the mortgage dated April 1, 1875; issued $28,766,000; dated September 15, 1893; due November 1, 1937; outstanding, $27,824,000. Interest 5 per cent., gold, payable May and November. Trustee, Central Trust Company of New York.

NOTE:—Bonds issued under the Stockton & Copperopolis R. R. Mortgage of January 1, 1875, Southern Pacific Branch Ry. Mortgage of November 24, 1886, and Southern Pacific R. R. Co., Mortgage of [1081] August 25, 1888 (now satisfied and discharged), to be retired out of the above authorized issue of $58,000,000.

Northern Railway First Mortgage Gold Bonds of 1877; authorized, $6,300,000; issued and outstanding, $5,156,000; dated January 1, 1877; due January 1, 1907. Interest 6 per cent., gold, payable January and July. Trustees, Eugene Kelly and Henry B. Laidlaw, both of the City of New York.

Northern Railway First Mortgage Gold Bonds of 1888; authorized, $21,000,000; issued and outstanding, $4,751,000; dated October 1, 1888; due October 1, 1938. Interest, 5 per cent., gold, payable April and October. Trustee, Union Trust Company of New York.

Northern California Railway First Mortgage Gold Bonds; authorized, $1,100,000; issued and outstanding, $1,074,000; dated November 1, 1889; due November 1, 1929. Interest, 5 per cent., gold, payable June and December. Trustee, California Safe Deposit & Trust Co., of San Francisco.

California Pacific R. R. First Mortgage Gold Bonds; authorized and issued, $2,250,000; outstanding, $2,232,000; dated January 1, 1867; due January 1, 1912. Interest, 4½ per cent., gold, payable January and July. Trustees, Jas. O'B. Gunn and Chas. E. Green, both of the City of San Francisco, Cal.

California Pacific R. R. Second Mortgage Gold Bolds; authorized and issued, $1,600,000; outstanding, $1,595,000; dated August 9, 1871; due January 1, 1911. Interest 4½ per cent., gold, payable January and July. Trustees, Jas. O'B. Gunn and Chas. E. Green, both of the City of San Francisco, Cal.

California Pacific R. R. Third Mortgage Gold Bonds: [1082] authorized, $2,000,000; issued and outstanding, $1,924,000; dated July 1, 1875; due July 1, 1905. Interest, 6 per cent., gold, payable January and July. Trustee, Stephen T. Gage, of the City of San Francisco, Cal.

California Pacific R. R. Third Mortgage Gold Bonds: authorized, issued and outstanding, $944,500; dated July 1, 1875; due July 1, 1905. Interest, 3 per cent., gold, payable January and July. Trustee, Stephen T. Gage, of the City of San Francisco, Cal.

(50)

Southern Pacific R. R. (of Arizona) First Mortgage Gold Bonds; authorized, issued and outstanding, $10,000,000; Series A, amounting to $6,000,000; dated March 1, 1879; due March 1, 1909; and Series B., $4,000,000; dated March 1, 1880; due March 1, 1910. Interest, 6 per cent., gold, payable January and July. Trustees, I. W. Hellman and Union Trust Company, both of the City of San Francisco, Cal.

Southern Pacific R. R. of New Mexico First Mortgage Gold Bonds; authorized, $5,000,000; issued and outstanding, $4,180,000; dated January 1, 1881; due January 1, 1911. Interest, 6 per cent., gold, payable January and July. Trustees, I. W. Hellman and

Union Trust Company, both of the City of San Francisco, Cal.

Southern Pacific R. R. First Refunding Bond Temporary Certificates: Issued and outstanding, $75,000,000. Interest, 4 per cent., January and July

DIRECTORS (11), elected April 10, 1906: [1083]

F. K. Ainsworth, San Francisco.
E. E. Calvin, San Francisco.
W. D. Cornish, New York.
I.W. Hellman, San Francisco.
W. F. Herrin, San Francisco.
Homer S. King, San Francisco.
Wm. Hood, San Francisco.
N. T. Smith, San Francisco.
H. A. Jones, San Francisco.
J. L. Willcutt, San Francisco.
Jas. K. Wilson, San Francisco.

OFFICERS, elected April 2, 1906:

W. D. Cornish, President, New York.
E. E. Calvin, Vice-President, San Francisco.
W. T. Smith, Second Vice-Pres., San Francisco.
N. T. Smith, Treasurer, San Francisco.
A. K. Van Deventer, Assistant Treasurer, New York.
J. L. Wilcutt, Secretary, San Francisco.
Jos. Hellen, Assistant Secretary, New York.
C. P. Lincoln, Asst. Secretary, San Francisco.
Alex. Millar, Transfer Agent, New York.
Chas. P. Lincoln, Transfer Agent for Bonds, San Francisco.

Joseph Hellen and O. C. Kahn, New York, are act-

ing Transfer Agents for Bonds of S. P. R. R. Cos. of California and New Mexico.

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From Manual No. 5, for the year 1906, marked Plaintiff's Exhibit "M M M," the title page and index and such matter as appears on pages 23, 33, 38, 39, 40, 41, 46, 47 and 48, with [**1084**] such emendations and corrections as have been made therein in red ink, which I will read into the record as follows:

SOUTHERN PACIFIC and AUXILIARY COMPANIES.

—oOo—

Manual No. 5—July 1, 1906.

—oOo—

Notice:—Officers receiving this volume will confer a favor on the undersigned by giving him early notice of errors noted, or changes necessary, in the following pages.

Alex. Millar, Secretary.

(Secretary's Files.)

SOUTHERN PACIFIC and AUXILIARY COMPANIES.

Manual No. 5—1906.

of

Annual Meetings, Directors, Officers, Capital Stock, Funded Debt, Etc.

July 1, 1906.

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San Francisco and Napa Ry. Co..... 34½
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San Francisco and Eureka Ry. Co..... 36½
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Chico and Northern R. R. Co..... 4½

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KERN TRADING & OIL CO.

Incorporated, California, May 22, 1903, for 50 years.

ANNUAL MEETING at San Francisco, Cal., First Wednesday in May at 11 A. M. *

Meetings of Directors, 2nd Wednesday of each month at 12 o'clock noon.

No specification for close of fiscal year.

CAPITAL STOCK: authorized and issued, $1,000,000. Shares $100 each.

DIRECTORS (5), elected May 1, 1907:

E. E. Calvin, San Francisco.

E. T. Dumble, San Francisco.

J. E. Foulds, Berkeley. [**1087**]

J. H. Wallace, San Francisco.

J. L. Willcutt, San Francisco.

OFFICERS, elected May 29, 1905:

E. E. Calvin, President, San Francisco.

E. T. Dumble, Vice President, Berkeley.

J. L. Willcutt, Secretary, San Francisco.

C. H. Redington, Treasurer (June 12, 1907), San Francisco.

* Two weeks notice shall be given either published daily for at least two weeks preceding the meeting or by written notice.

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RIO BRAVO OIL CO.

Incorporated, Texas, March 3, 1903, for 50 years.

ANNUAL MEETING, Houston, Texas, second Monday in January. Written notice to be given at least five days previously. Meetings of Directors can be held at any time.

Fiscal year closes June 30.

CAPITAL STOCK: authorized, $1,000,000; shares $100 each.

DIRECTORS (5), elected January 8, 1906:

C. C. Barry, Houston.
G. R. Cottingham, Houston.
E. T. Dumble, Houston.
Thornwell Fay, Houston.
W. G. Van Vleck, Houston.

OFFICERS, elected January 8, 1906:

Thornwell Fay, President, Houston.
E. T. Dumble, Vice-President, Houston.
G. R. Cottingham, Secretary, Houston.
B. C. Cushman, Treasurer, Houston.

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SOUTHERN PACIFIC COMPANY.

Incorporated by Act of General Assembly of the State of [1088] Kentucky, approved March 17, 1884, in perpetuity, for the purpose of unifying in management lines of railroad extending from New Orleans, La., to San Francisco, Cal., to Portland, Ore., and to Ogden, Utah.

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CONTROLLED PROPERTIES.

The Southern Pacific Company is the principal owner of the capital stock of the following companies, and operates them under leases to it: Central Pacific Railway, Oregon and California Railroad, Southern Pacific Railroad, South Pacific Coast Railway.

The Southern Pacific is also the principal owner of the capital stock of the following companies, which

are operated by their own organizations, viz. Galveston, Harrisburg & San Antonio Railway, Texas and New Orleans Railroad, Louisiana Western Railroad, Maricopa and Phoenix and Salt River Valley Railroad, Houston & Texas Central Railroad, Carson

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& Colorado Railway, Houston East and West Texas Railway, Houston & Shreveport Railroad, Gila Valley Globe & Northern Railway, Pacific Mail Steamship, Morgan's Louisiana & Texas Railroad and Steamship; and owner of half the stock of the Sunset Railroad Co.; and it operates under leases from the Atchison, Topeka & Santa Fe the lines of the New Mexico & Arizona Railroad and the Sonora Railway companies.

The Morgan's Louisiana & Texas Railroad & Steamship Co. is the principal owner of stocks of the following companies, which are operated under their own organizations, viz: Direct Navigation Co., Iberia & Vermilion Railroad.

In March, 1902, the Southern Pacific Railroad of California, [1089] the Southern Pacific Railroad of Arizona and the Southern Pacific Railroad of New Mexico were consolidated into a new company, the Southern Pacific Railroad Co.

The Southern Pacific Co. also operates steamship lines from New Orleans to Havana, and from New York to New Orleans, and Galveston, Texas, and owns 16 ocean steamers. The Pacific Mail Steamship Co. operates lines from San Francisco to ports in Japan, China, and South and Central America, and

owns 16 ocean steamers. Companies controlled by the Southern Pacific Co. also operate ferry, harbor and river lines in Louisiana, Texas, and California, aggregating about 5,000 miles.

The Mojave Division of the Southern Pacific Railroad, 242 miles, is leased to the Atchison, Topeka & Santa Fe Railway Company, until 1979, at an annual rental of $218,133.

DIRECTORS (15), elected April 4, 1906:

Wm. D. Cornish, New York.
Henry W. De Forest, Oyster Bay, N. Y.
Maxwell Evarts, New York.
Robert Goelet, Newport, R. I.
E. H. Harriman, Arden, N. Y.
Marvin Hughitt, Chicago.
H. E. Huntington, San Francisco.
R. S. Lovett, New York.
Clarence H. Mackay, New York.
D. O. Mills, New York.
Ogden Mills, Staatsburg, N. Y.
James Stillman, New York.
W. V. S. Thorne, New York.
A. K. Van Deventer, New York.
David Willcox, New York. [**1090**]

EXECUTIVE COMMITTEE (5), elected April 10, 1906:

E. H. Harriman, Chairman.
H. W. De Forest.
R. S. Lovett.
James Stillman.
David Willcox.

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OFFICERS

EXECUTIVE DEPARTMENT, elected April 10, 1906:

E. H. Harriman, President, Arden, N. Y.

Wm. D. Cornish, Vice-President, New York.

J. C. Stubbs, Vice-President, Chicago.

J. Kruttschnitt, Vice-President, Chicago.

E. E. Calvin, Vice-President, San Francisco.

Alex. Millar, Clerk and Secretary, New York.

Joseph Hellen, Asst. Clerk and Asst. Secretary, New York.

John B. Weaver, Assistant Clerk, Beechmont, Ky.

C. B. Seger, Assistant Secretary (March 16, 1905), San Francisco.

N. T. Smith, Treasurer, San Francisco.

A. K. Van Deventer, Assistant Treasurer, New York.

Alex. Millar, Transfer Agent, New York.

Otto C. Kahn, Assistant Transfer Agent, New York.

W. H. James, Asst. Transfer Agent for Stock, New York.

H. B. Taylor, Asst. Transfer Agent for Stock, New York.

Geo. M. Thornton, Cashier, New York.

Union Trust Co., Registrar of Transfers of Common Stock, New York. [1091]

Guaranty Trust Co., Registrar of Transfers of Preferred Stock, New York.

LEGAL DEPARTMENT:

New York.

R. S. Lovett, Counsel.

Maxwell Evarts, Attorney.

San Francisco.

W. F. Herrin, Chief Counsel.

P. F. Dunne, General Attorney.

J. E. Foulds, Attorney.

D. R. Sessions, Claims Attorney.

E. B. Ryan, Tax Attorney.

Portland.

J. W. Morrow, Right of Way and Tax Agent.

ACCOUNTING DEPARTMENT:

Wm. Mahl, Comptroller, New York.

H. S. Bradt, Assistant Comptroller, New York.

Erastus Young, General Auditor, Omaha.

C. B. Seger, Auditor, San Francisco.

C. J. Wilder, Auditor of Dining Car and Hotel Accounts, San Francisco.

D. W. Horsburgh, Freight Auditor, San Francisco.

G. E. Bissonett, Auditor of Passenger Accounts, San Francisco.

(41)

TRAFFIC DEPARTMENT:

J. C. Stubbs, Traffic Director, Chicago.

E. O. McCormick, Asst. Traffic Director, Chicago.

P. C. Stohr, Asst. Traffic Director, Chicago.

Wm. Sproule, Freight Traffic Manager, San Francisco. [1092]

H. A. Jones, Freight Traffic Manager, Atlantic System, New Orleans.

G. W. Luce, General Freight Agent, San Francisco.

S. N. Bostwick, Asst. General Freight Agent, San Francisco.

J. G. Stubbs, Asst. General Freight Agent, San Francisco.

Chas. S. Fay, General Freight Agent, New Orleans.

W. E. Coman, General Freight and Passenger Agent, Lines in Oregon, Portland.

Thos. A. Graham, Assistant General Freight and Passenger Agent, Los Angeles.

Chas. S. Fee, Passenger Traffic Manager, San Francisco.

R. A. Donaldson, Asst. Gen. Passenger Agent, San Francisco.

Jas. Horsburgh, Jr., Acting Gen. Pass. Agent, San Francisco.

Paul Shoup, Asst. Gen. Passenger Agent, San Francisco.

H. R. Judah, Asst. Gen. Passenger Agent, San Francisco.

Wm. McMurray, Asst. Gen. Passenger Agent, Portland.

F. E. Batturs, Asst. Gen. Pass. and Ticket Agent, New Orleans.

E. B. Carson, General Baggage Agent, San Francisco.

General Agent, New Orleans.

TRANSPORTATION DEPARTMENT:

J. Kruttschnitt, Director of Maint. and Operation, Chicago.

W. B. Scott, Assistant Director of Maintenance and Operation, Chicago.

E. E. Calvin, General Manager, Pacific System, San Francisco.

J. P. O'Brien, General Manager, Oregon Lines, Portland.

W. H. Bancroft, Gen. Mgr., Line East of Reno, Salt Lake City.

W. S. Palmer, Gen. Supt., Northern District, San Francisco.

R. H. Ingram, Gen. Supt, Southern District, Los Angeles. [1093]

M. J. Buckley, Gen. Supt., Oregon Lines, Portland.

Geo. F. Richardson, Supt. of Transportation, San Francisco.

J. A. Naugle, Asst. Gen. Mgr., Sonora Ry., Guaymas, Mex.

A. E. Roome, Superintendent Telegraph, San Francisco.

H. J. Small, General Supt. Motive Power, San Francisco.

C. W. Jungen, Mgr. Atlantic Coast S. S. Lines, New York.

ENGINEERING DEPARTMENT:

Wm. Hood, Chief Engineer, San Francisco.

J. H. Wallace, Asst. Chief Engineer, San Francisco.

G. H. Boschke, Chief Engineer, Lines in Oregon, Portland.

John D. Isaacs, Consulting Engineer, San Francisco.

(42)

LAND DEPARTMENT:

Wm. H. Mills, Land Agent, C. P. R. R., San Francisco.

Chas. W. Eberlein, Acting Land Agt. S. P. R. R. and O. & C. R. R., San Francisco.

C. C. Gibbs, Land Commissioner, San Antonio.

SUPPLY DEPARTMENT:

W. V. S. Thorne, Director of Purchases, New York.

I. O. Rhoades, Gen. Purchasing Agent, San Francisco.

H. W. Ellicott, Asst. Gen. Purchasing Agent, San Francisco.

H. C. Pearce, General Storekeeper, San Francisco.

MISCELLANEOUS:

F. K. Ainsworth, Chief Surgeon and Hospital Manager, San Francisco.

D. Urquhart, Superintendent Commissary, San Francisco.

E. T. Dumble, Consulting Geologist, San Francisco.

G. L. King, Right of Way and Contract Agent, San Francisco. [1094]

(43)

SOUTHERN PACIFIC RAILROAD COMPANY.

Incorporated, California, Arizona, and New Mexico, March 10, 1902, for 50 years.

. . . . . .

(46)

FUNDED DEBT

First Mortgage Gold Bonds of S. P. R. R. Co., of California, or 1875; Series A to G, inclusive; authorized $46,000,000; issued, $39,285,000; outstanding, $5,116,000.

E.	Authorized and issued, $5,000,000; dated April 1, 1882; due April 1, 1912; outstanding.....	$ 3,152,000
F.	Authorized, $5,000,000; issued $4,285,000; dated April 1, 1882; due April 1, 1912; outstanding	1,964,000
G.	Authorized, $6,000,000; never issued.	

Interest, 6 per cent., gold, payable April and October. Trustees, D. O. Mills, New York, and Homer S. King, San Francisco.

Southern Pacific Branch Railway First Mortgage Gold Bonds: authorized $9,000,000; issued, $3,578,000; dated April 1, 1887; due April 1, 1937; outstanding, $3,533,000. Interest, 6 per cent., gold, payable April and October. Trustee, Union Trust Company of San Francisco.

(47)

Southern Pacific R. R. of California, First Consolidated Mortgage Gold Bonds of 1893; authorized,

$58,000,000, [**1095**] issued, $28,766,000; dated September 15, 1893; due November 1, 1937; outstanding, $4,127,500. Interest, 5 per cent., gold, payable May and November. Trustee, Central Trust Company of New York.

Northern Railway First Mortgage Gold Bonds of 1888; authorized $21,000,000; issued and outstanding, $4,751,000; dated October 1, 1888; due October 1, 1938. Interest, 5 per cent., gold, payable April and October. Trustee, Union Trust Company of New York.

Northern California Railway First Mortgage Gold Bonds: authorized, $1,100,000; issued and outstanding, $1,074,000; dated November 1, 1899; due November 1, 1929. Interest, 5 per cent. gold, payable June and December. Trustee, California Safe Deposit & Trust Co., of San Francisco.

California Pacific R. R. First Mortgage Gold Bonds: authorized and issued, $2,250,000; outstanding, $2,232,000; dated [**1096**] January 1, 1867; due January 1, 1912. Interest 4½ per cent., gold, payable January and July. Trustees, Jas. O'B. Gunn and Chas. E. Green, both of the City of San Francisco, Cal.

California Pacific R. R. Second Mortgage Gold Bonds: authorized and issued, $1,600,000; outstanding, $1,595,000; dated August 9, 1871; due January 1, 1911. Interest, 4½ per cent., gold, payable January and July. Trustees, Jas. O'B. Gunn and Chas. E. Green, both of the City of San Francisco, Cal.

Southern Pacific R. R. (of Arizona) First Mort-

gage Gold Bonds; authorized, issued and outstanding, $10,000,000; Series A, amounting to $6,000,000; dated March 1, 1879; due March 1, 1909; and Series B, $4,000,000; dated March 1, 1880; due March 1, 1910. Interest, 6 per cent., gold, payable January and July. Trustees, I. W. Hellman and Union Trust Company, both of the City of San Francisco, Cal.

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Southern Pacific R. R. of New Mexico First Mortgage Gold Bonds: authorized, $5,000,000; issued and outstanding, $4,180,000; dated January 1, 1881; due January 1, 1911. Interest, 6 per cent., gold, payable January and July. Trustees, I. W. Hellman and Union Trust Company, both of the City of San Francisco, Cal.

Southern Pacific R. R. First Refunding Bonds: authorized, $160,000,000; issued and outstanding, $81,165,000; dated January 3, 1905; due January 1, 1955. Interest, 4 per cent., January and July. Trustee, The Equitable Trust Co. of New York.

DIRECTORS (11), elected April 9, 1907:

F. K. Ainsworth (Nov. 2, 1905), San Francisco.
E. E. Calvin, San Francisco. [**1097**]
Wm. D. Cornish (Aug. 30, 1905), New York.
I. W. Hellman (Sept. 21, 1905), San Francisco.
W. F. Herrin (Oct. 26, 1905), San Francisco.
Wm. Hood, San Francisco.
Homer S. King (Aug, 3, 1905), San Francisco.
C. H. Redington (June 6, 1907), San Francisco.
H. A. Jones (Aug. 25, 1905), San Francisco.
J. L. Willcutt, San Francisco.

Jas. K. Wilson, San Francisco.

OFFICERS, elected April 9, 1907:

Wm. D. Cornish, President (Aug. 30, 1905), New York.

E. E. Calvin, Vice-President (Aug. 30, 1905), San Francisco.

C. H. Redington, Second Vice-President (June 6, 1907), San Francisco.

Wm. Mahl, Comptroller (November 2, 1905), New York.

A. K. Van Deventer, Treasurer (June 6, 1907), New York.

C. H. Redington, Assistant Treasurer (June 6, 1907), San Francisco.

J. L. Willcutt, Secretary, San Francisco.

Jos. Hellen, Assistant Secretary (Aug. 30, 1905), New York.

Chas. P. Lincoln, Assistant Secretary, San Francisco.

Alex. Millar, Transfer Agent, New York.

Joseph Hellen, Transfer Agent, New York.

Otto C. Kahn, Transfer Agent, New York.

W. H. James, Transfer Agent for Bonds, New York.

James Watkins, Transfer Agent for Bonds, New York.

Chas. P. Lincoln, Transfer Agent for Bonds, San Francisco.

Joseph Hellen and O. C. Kahn, New York, are act-

ing Transfer Agents for Bonds of S. P. R. R. Cos. of California and of New Mexico. [1098]

From Manual No. 6, for the year 1907, marked Plaintiff's Exhibit "N N N", the title page and index and such matter as appears upon pages 28, 48, 55, 56, 57, 58 and 59, together with the corrections in red ink found therein, which I will read into the record as follows:

SOUTHERN PACIFIC and AUXILIARY COMPANIES.

—oOo—

Manual No. 6—July 1, 1907.

—oOo—

Notice:—Officers receiving this volume will confer a favor on the undersigned by giving him early notice of errors noted, or changes necessary, in the following pages.

Alex. Millar, Secretary.

(Secretary's Files)

SOUTHERN PACIFIC and AUXILIARY COMPANIES.

Manual No. 6—1907.

of

Annual Meetings, Directors, Officers, Capital Stock, Funded Dept, Etc.

July 1, 1907.

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KERN TRADING & OIL CO.

Incorporated, California, May 22, 1903, for 50 Years.

ANNUAL MEETING, San Francisco, Cal., first Wednesday in May, at 11 A.M. Two weeks' notice to be given, either published daily for at least two weeks previously or by writing.

Regular meeting of Directors, second Wednesday of each month at 12, noon.

No specification for close of fiscal year. [**1101**]

CAPITAL STOCK: authorized and issued, $1,000,000. Shares $100 each.

DIRECTORS (5), elected May 1, 1907:

E. E. Calvin, San Francisco.

E. T. Dumble, San Francisco.

J. E. Foulds, San Francisco.

W. R. Scott, (July 30, 1908), San Francisco.

C. H. Redington (July 30, 1908), San Francisco.

OFFICERS, elected May 1, 1907:

E. E. Calvin, President, San Francisco.

E. T. Dumble, Vice-President, San Francisco.

J. L. Willcutt, Secretary, San Francisco.

C. H. Redington, Treasurer (June 12, 1907), San Francisco.

C. B. Seger, Auditor (July 30, 1908), San Francisco.

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RIO BRAVO OIL CO.

Incorporated, Texas, March 3, 1903, for 50 Years.

ANNUAL MEETING, Houston, Texas, second Monday in January. Written notice to be given at least five days previously.

Meetings of Directors can be held at any time.

Fiscal year closes June 30.

CAPITAL STOCK: authorized, $1,000,000; shares $100 each.

DIRECTORS (5), elected January 14, 1907:

G. R. Cottingham, Houston.
E. T. Dumble, Houston.
Thornwell Fay, Houston.
*E. H. Harriman, New York.
W. G. Van Vleck, Houston.

OFFICERS, elected January 14, 1907: [1102]

*E. H. Harriman, President, New York.
*Thornwell Fay, Vice-President, Houston.
C. R. Cottingham, Secretary, Houston.
B. C. Cushman, Treasurer, Houston.

*Elected May 14, 1907.

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SOUTHERN PACIFIC COMPANY.

Incorporated by Act of General Assembly of the State of Kentucky approved March 17, 1884, in perpetuity, for the purpose of unifying in management lines of railroad extending from New Orleans, La., to San Francisco, Cal., to Portland, Ore., and to Ogden, Utah.

. . . . . .

TRANSPORTATION LINES.

The Southern Pacific Company is the principal owner of the capital stock of the following companies, and operates them under leases to it: Central Pacific Railway, Oregon and California Railroad, Southern Pacific Railroad, South Pacific Coast Railway.

The Southern Pacific is also the principal owner of the capital stock of the following companies, which operate their own lines, viz: Galveston, Harrisburg & San Antonio Railway, Texas and New Orleans Railroad, Louisiana Western Railroad, Maricopa and Phoenix and Salt River Valley Railroad, Houston & Texas Central Railroad, Carson & Colorado Railway, California Northeastern Railway, Chico & Northern Railroad, Coos Bay, Roseburg & Eastern Railroad

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and Navigation, Houston East and West Texas Railway, Inter-California Railway, Nevada & California Railway; Phoenix & [1103] Eastern Railroad, San Francisco & Napa Railway, Pacific Mail Steamship, Morgan's Louisiana & Texas Railroad and Steamship; and owner of half the stock of the Northwestern Pacific Railroad Co. and of the Sunset Railroad Co.; and it operates under leases from the Atchison, Topeka & Santa Fe the lines of the New Mexico & Arizona Railroad and the Sonora Railway companies.

The Morgan's Louisiana & Texas Railroad & Steamship Co. is the principal owner of stocks of the following companies, which are operated under their own organizations, viz: Direct Navigation Co., Iberia & Vermilion Railroad.

The Southern Pacific Co. also operates steamship lines from New Orleans to Havana, and from New York to New Orleans, and Galveston, Texas, and owns 19 ocean steamers. The Pacific Mail Steamship Co. operates lines from San Francisco to ports

in Japan, China, and South and Central America, and owns 16 ocean steamers. Companies controlled by the Southern Pacific Co. also operate ferry, harbor and river lines in Louisiana, Texas, and California. The total of all routes is about 15,000 miles.

The Mojave Division of the Southern Pacific Railroad, 242 miles, is leased to the Atchison, Topeka & Santa Fe Railway Company until 1979, at an annual rental of $218,133.

DIRECTORS (15), elected April 3, 1907:
Wm. D. Cornish, New York.
W. Bayard Cutting (April 11, 1907), New York.
Maxwell Evarts, New York.
Henry W. de Forest, Oyster Bay, N. Y.
Robert Goelet, Newport, R. I.
E. H. Harriman, New York.
Marvin Hughitt, Chicago. [1104]
H. E. Huntington, San Francisco.
R. S. Lovett, New York.
Clarence H. Mackay, New York.
Wm. Mahl (July 8, 1907), New York.
Ogden Mills, Staatsburg, N. Y.
James Stillman, New York.
W. V. S. Thorne, New York.
A. K. Van Deventer, New York.

EXECUTIVE COMMITTEE (5), elected April 11, 1907:
E. H. Harriman, Chairman.
Hy. W. deForest.
R. S. Lovett.

Ogden Mills (June 20, 1907).
James Stillman.

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OFFICERS.

EXECUTIVE DEPARTMENT, elected April 11, 1907:

E. H. Harriman, President, New York.
Wm. D. Cornish, Vice-President, New York.
J. C. Stubbs, Vice-President, Chicago.
J. Kruttschnitt, Vice-President, Chicago.
E. E. Calvin, Vice-President, San Francisco.
Alex. Millar, Clerk and Secretary, New York.
Joseph Hellen, Asst. Clerk and Asst. Secretary, New York.
John B. Weaver, Assistant Clerk, Beechmont, Ky.
C. B. Seger, Assistant Secretary (March 16, 1905) San Francisco.
A. D. McDonald, Assistant Secretary (Dec. 20, 1906), San Francisco.
A. K. Van Deventer, Treasurer (May 1, 1907), New York. **[1105]**
C. H. Redington, Assistant Treasurer (May 23, 1907), San Francisco.

Geo. M. Thornton, Cashier, New York.
Alex. Millar, Transfer Agent, New York.
Otto C. Kahn, Assistant Transfer Agent, New York.
W. H. James, Asst. Transfer Agent for Stock, New York.

H. B. Taylor, Asst. Transfer Agent for Stock, New York.

Union Trust Co., Registrar of Transfers of Common Stock, New York.

Guaranty Trust Co., Registrar of Transfers of Preferred Stock, New York.

LEGAL DEPARTMENT:

New York.

R. S. Lovett, Counsel.

Maxwell Evarts, Attorney.

San Francisco.

Wm. F. Herrin, Chief Counsel.

P. F. Dunne, General Attorney.

J. E. Foulds, Attorney.

D. R. Sessions, Claims Attorney.

E. B. Ryan, Tax Attorney.

Portland.

J. W. Morrow, Right of Way and Tax Agent.

Chicago.

F. C. Dillard, Attorney.

ACCOUNTING DEPARTMENT:

Wm. Mahl, Comptroller, New York.

H. B. Johnson, Assistant Comptroller, New York.

[1106]

Erastus Young, General Auditor, Ohama.

C. B. Seger, Auditor, San Francisco.

C. J. Wilder, Auditor of Dining Car and Hotel Accounts, San Francisco.

D. W. Horsburgh, Freight Auditor, San Francisco.

G. E. Bissonett, Auditor of Passenger Accounts, San Francisco.

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TRAFFIC DEPARTMENT:

J. C. Stubbs, Traffic Director, Chicago.

E. O. McCormick, Asst. Traffic Director, Chicago.

P. C. Stohr, Asst. Traffic Director, Chicago.

H. A. Jones, Freight Traffic Manager, San Francisco.

G. W. Luce, General Freight Agent, San Francisco.

S. N. Bostwick, Asst. General Freight Agent, San Francisco.

C. J. Jones, Asst. General Freight Agent, San Francisco.

J. G. Stubbs, Asst. General Freight Agent, San Francisco.

T. A. Graham, Assistant General Freight and Passenger Agent, Los Angeles.

Chas. S. Fee, Passenger Traffic Manager, San Francisco.

Jas. Horsburgh, Jr., Gen. Passenger Agent, San Francisco.

R. A. Donaldson, Asst. Gen. Passenger Agent, San Francisco.

Paul Shoup, Asst. Gen. Passenger Agent, San Francisco.

H. R. Judah, Asst. Gen. Passenger Agent, San Francisco.

R. B. Miller, Gen. Freight Agent, Lines in Oregon, Portland.

W. E. Coman, Asst. Gen. Freight Agent, Lines in Oregon, Portland.

W. D. Skinner, Asst. Gen. Freight Agent, Lines in Oregon, Portland.

Wm. McMurray, Gen. Passenger Agent, Lines in Oregon, Portland. [1107]

J. M. Scott, Asst. Gen. Passenger Agent, Lines in Oregon, Portland.

E. B. Carson, General Baggage Agent, San Francisco.

TRANSPORTATION DEPARTMENT:

J. Kruttschnitt, Director of Maint. and Operation, Chicago.

W. B. Scott, Assistant Director of Maintenance and Operation, Chicago.

E. E. Calvin, General Manager, Pacific System, San Francisco.

J. P. O'Brien, General Manager, Oregon Lines, Portland.

W. H. Bancroft, Gen. Mgr., Line East of Reno, Salt Lake City.

W. S. Palmer, Gen. Supt., Northern District, San Francisco.

R. H. Ingram, Gen. Supt., Southern District, Los Angeles.

M. J. Buckley, Gen. Supt., Oregon Lines, Portland.

Geo. F. Richardson, Supt. of Transportation, San Francisco.

Epes Randolph, Gen. Mgr. Sonora Ry., Tucson, Ariz.

A. E. Roome, Superintendent Telegraph, San Francisco.

H. J. Small, General Supt. Motive Power, San Francisco.

C. W. Jungen, Mgr. Atlantic Coast S. S. Lines, New York.

ENGINEERING DEPARTMENT:

Wm. Hood, Chief Engineer, San Francisco.

J. H. Wallace, Asst. Chief Engineer, San Francisco.

G. H. Boschke, Chief Engineer, Lines in Oregon, Portland.

John D. Isaacs, Consulting Engineer, Chicago.

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LAND DEPARTMENT:

Henry Conlin, Acting Land Agt., S. P. R. R. (6/11/08) and O. & C. R. R. (6/15/08), San Francisco.

C. C. Gibbs, Land Commissioner, San Antonio.

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SUPPLY DEPARTMENT:

W. V. S. Thorne, Director of Purchases, New York.

I. O. Rhoades, Gen. Purchasing Agent, San Francisco.

H. W. Ellicott, Asst. Gen. Purchasing Agent, San Francisco.

H. C. Pearce, General Storekeeper, San Francisco.

MISCELLANEOUS:

F. K. Ainsworth, Chief Surgeon and Hospital Manager, San Francisco.

D. Urquhart, Superintendent Commissary, San Francisco.

E. T. Dumble, Consulting Geologist, San Francisco.

G. L. King, Right of Way and Contract Agent, San Francisco.

From Manual No. 7, for the year 1908, the title page and index, together with such matter as appears upon pages 35, 58, 64, 65, 66, 67, 68, 69, 72, 73 and 74, together with the corrections appearing therein in red ink, which I will read into the record as follows; said manual being marked Plaintiff's Exhibit "OOO".

SOUTHERN PACIFIC and AUXILIARY COMPANIES.

—oOo—

Manual No. 7—July 1, 1908.

—oOo—

Notice:—Officers receiving this volume will confer a favor on the undersigned by giving him early notice of errors noted, or changes necessary, in the following pages.

Alex. Millar, Secretary. [1109]

(Secretary's Files)

SOUTHERN PACIFIC and AUXILIARY COMPANIES.

Manual No. 7—1908.

of

Annual Meetings, Directors, Officers, Capital Stock, Funded Debt, etc.

July 1, 1908.

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KERN TRADING & OIL CO.

Incorporated, California, May 22, 1903, for 50 Years.

ANNUAL MEETING, San Francisco, first Wednesday in May, at 11 A.M. Two weeks' notice to be given, either published daily for at least two weeks previously or by writing.

Regular meeting of Directors, second Wednesday of each month at 12, noon.

No specification for close of fiscal year.

CAPITAL STOCK: authorized and issued, $1,000,000. Shares $100 each.

DIRECTORS (5), elected May 1, 1907:

E. E. Calvin, San Francisco.
E. T. Dumble, San Francisco.
J. E. Foulds, San Francisco.
C. H. Redington (July 30, 1908), San Francisco.
W. R. Scott (July 30, 1908), San Francisco.

OFFICERS, elected May 1, 1907: [1112]

E. E. Calvin, President, San Francisco.
E. T. Dumble, Vice-President, San Francisco.
G. L. King,
J. L. Wilcutt, Secretary (Jan. 1, 1909), San Francisco.
C. H. Redington, Treasurer (June 12, 1907), San Francisco.
C. B. Seger, Auditor (1908), San Francisco.

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RIO BRAVO OIL CO.

Incorporated, Texas, March 3, 1903, for 50 Years.

ANNUAL MEETING, Houston, Texas, second Monday in January. Written notice to be given at least five days previously.

Meetings of Directors can be held at any time.

Fiscal year closes June 30.

CAPITAL STOCK: authorized, $1,000,000; issued $850,000. Shares $100 each.

DIRECTORS (5), elected January 13, 1908:

G. R. Cottingham, Houston.
E. T. Dumble, Houston.
Thornwell Fay, Houston.
E. H. Harriman, New York.
W. G. Van Vleck, Houston.

OFFICERS, elected January 13, 1908:

E. H. Harriman, President, New York.
Thornwell Fay, Vice-President, Houston.
G. R. Cottingham, Secretary, Houston.
B. C. Cushman, Treasurer, Houston.

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SOUTHERN PACIFIC COMPANY.

Incorporated by Act of General Assembly of the State of Kentucky, approved March 17, 1884, in perpetuity, for [1113] the purpose of unifying in management lines of railroad extending from New Orleans, La., to San Francisco, Cal., to Portland, Ore., and to Ogden, Utah.

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TRANSPORTATION LINES.

The Southern Pacific Company is the principal owner of the capital stock of the following companies, and operates them under leases to it: Central Pacific Railway, Oregon and California Railroad, Southern Pacific Railroad, South Pacific Coast Railway.

The Southern Pacific is also the principal owner of the capital stock of the following companies, which operate their own lines, viz: Galveston, Harrisburg & San Antonio Railway,

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Texas and New Orleans Railroad, Louisiana Western Railroad, Maricopa and Phoenix Railroad, Houston & Texas Central Railroad, Cananea Yaqui River & Pacific Railway, California Northeastern Railway, Chico & Northern Railroad, Coast Line Railway, Coos Bay, Roseburg & Eastern Railroad and Navigation, Houston East and West Texas Railway, Houston & Shreveport Railroad, Gila Valley, Globe & Northern Railway, Houston & Shreveport Railroad, Gila Valley Globe & Northern Railway, Inter-California Railway, Nevada & California Railway, Phoenix & Eastern Railroad, San Bernardino & Redlands Railroad, San Francisco & Napa Railway, Pacific Mail Steamship, Morgan's Louisiana & Texas Railroad and Steamship; and owner of half of the stock of the Northwestern Pacific Railroad Co., and of the Sunset Railroad Co.; and it operates under leases from the Atchison, Topeka & Santa Fe the

lines of the New Mexico & Arizona Railroad and the [1114] Sonora Railway Companies.

The Morgan's Louisiana & Texas Railroad & Steamship Co. is the principal owner of stocks of the following companies, which are operated under their own organizations, viz: Direct Navigation Co., Iberia & Vermilion Railroad.

The Southern Pacific Co. also operates steamship lines from New Orleans to Havana, and from New York to New Orleans, and Galveston, Texas, and owns 21 ocean steamers. The Pacific Mail Steamship Co. operates lines from San Francisco to ports in Japan, China, and South and Central America, and owns 16 ocean steamers. Companies controlled by the Southern Pacific Co. also operate ferry, harbor and river lines in Louisiana, Texas, and California. The total of all routes is about 15,000 miles.

The Mojave Division of the Southern Pacific Railroad, 242 miles, is leased to the Atchison, Topeka & Santa Fe Railway Company until 1979, at an annual rental of $218,133.

DIRECTORS (15), elected April 8, 1908:

Wm. D. Cornish, New York.
W. Bayard Cutting, New York.
Maxwell Evarts, New York.
Henry W. de Forest, Oyster Bay, N. Y.
Robert Goelet, Newport, R. I.
E. H. Harriman, New York.
Marvin Hughitt, Chicago.
H. E. Huntington, San Francisco.
R. S. Lovett, New York.

Clarence H. Mackay, New York.
Wm. Mahl, New York.
Ogden Mills, Staatsburg, N. Y. [1115]
W. V. S. Thorne, New York.
Frank A. Vanderlip, New York.
A. K. Van Deventer, New York.

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EXECUTIVE COMMITTEE (5), elected April 16, 1908:

E. H. Harriman, Chairman.
Hy. W. de Forest.
R. S. Lovett.
Ogden Mills.
Frank A. Vanderlip.

OFFICERS.

EXECUTIVE DEPARTMENT, elected April 16, 1908:

E. H. Harriman, President, New York.
Wm. D. Cornish, Vice-President, New York.
J. C. Stubbs, Vice-President, Chicago.
J. Kruttschnitt, Vice-President, Chicago.
E. E. Calvin, Vice-President, San Francisco.
Alex. Millar, Clerk and Secretary, New York.
Joseph Hellen, Asst. Clerk and Asst. Sec., New York.
John B. Weaver, Assistant Clerk, Beechmont, Ky.
C. B. Seger, Asst. Secretary (July 28, 1908), San Francisco.
W. F. Ingram, Assistant Secretary, San Francisco.

A. K. Van Deventer, Treasurer, New York.
C. H. Redington, Assistant Treasurer, San Francisco.

Geo. M. Thornton, Cashier, New York.
Alex. Millar, Transfer Agent, New York.
Otto C. Kahn, Transfer Agent for Bonds, New York.
R. Troop, Transfer Agent for Bonds, New York.
Union Trust Co., Registrar of Transfers of Common Stock, New York. **[1116]**
Guaranty Trust Co., Registrar of Transfers of Preferred Stock, New York.

LEGAL DEPARTMENT:
New York.
R. S. Lovett, Counsel.
Maxweell Evarts, Attorney.
San Francisco.
Wm. F. Herrin, Chief Counsel.
P. F. Dunne, General Attorney.
J. E. Foulds, Attorney.
D. R. Sessions, Claims Attorney.
E. B. Ryan, Tax Attorney.
Portland.
J. W. Morrow, Right of Way and Tax Agent.
Chicago.
F. C. Dillard, Attorney.

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ACCOUNTING DEPARTMENT:
Wm. Mahl, Comptroller, New York.

H. B. Johnson, Assistant Comptroller, New York.

Erastus Young, General Auditor, Omaha.

C. B. Seger, Auditor, San Francisco.

W. F. Ingram, Assistant Auditor, San Francisco.

D. W. Horsburgh, Auditor of Freight Accts., San Francisco.

G. D. Smith, Asst. Auditor of Freight Accts., San Francisco.

G. E. Bissonett, Auditor of Pass. Accounts, San Francisco.

R. Adams, Auditor of Disbursements, San Francisco.

C. J. Wilder, Auditor of Dining Car and Hotel Accounts, San Francisco. [1117]

O. F. Giffin, Auditor of Equipment Accounts, San Francisco.

J. M. Brewer, Freight Claim Agent, San Francisco.

TRAFFIC DEPARTMENT:

J. C. Stubbs, Traffic Director, Chicago.

E. O. McCormick, Asst. Traffic Director, Chicago.

P. C. Stohr, Asst. Traffic Director, Chicago.

H. A. Jones, Freight Traffic Manager, San Francisco.

G. W. Luce, General Freight Agent, San Francisco.

S. N. Bostwick, Asst. General Freight Agent, San Francisco.

C. J. Jones, Asst. General Freight Agent, San Francisco.

J. G. Stubbs, Asst. General Freight Agent, San Francisco.

T. A. Graham, Assistant General Freight and Passenger Agent, Los Angeles.

Chas. S. Fee, Passenger Traffic Manager, San Francisco.

Jas. Horsburgh, Jr., Gen. Passenger Agent, San Francisco.

R. A. Donaldson, Asst. Gen. Pass. Agent, San Francisco.

Paul Shoup, Asst. Gen. Passenger Agent, San Francisco.

H. R. Judah, Asst. Gen. Passenger Agent, San Francisco.

R. B. Miller, Gen. Freight Agent, Lines in Oregon, Portland.

W. E. Cowan, Asst. Gen. Freight Agent, Lines in Oregon, Portland.

W. D. Skinner, Asst. Gen. Freight Agent, Lines in Oregon, Portland.

Wm. McMurray, Gen. Passenger Agent, Lines in Oregon, Portland.

J. M. Scott, Asst. Gen. Passenger Agent, Lines in Oregon, Portland. [1118]

E. B. Carson, General Baggage Agent, San Francisco.

H. P. Thrall, Mail Traffic Manager, Chicago.

TRANSPORTATION DEPARTMENT:

J. Kruttschnitt, Director of Maint. and Operation, Chicago.

W. B. Scott, Asst. Director of Maint. and Operation, Chicago.

W. A. Worthington, Asst. to Director of Maint. and Operation, Chicago.

(68)

TRANSPORTATION DEPARTMENT — Continued:

E. E. Calvin, Gen. Manager, Pacific System, San Francisco.

J. P. O'Brien, Gen. Manager, Oregon Lines, Portland.

W. H. Bancroft, Gen. Manager Line East of Reno, Salt Lake City.

J. H. Young, Gen. Supt., Northern District, San Francisco.

R. H. Ingram, Gen. Supt. Southern District, Los Angeles.

M. J. Buckley, Gen. Supt., Oregon Lines, Portland.

Geo. F. Richardson, Supt of Transportation, San Francisco.

Epes Randolph, Gen. Manager, Sonora Ry., Tucson, Ariz.

F. S. Rawlins, Superintendent Telegraph, San Francisco.

H. J. Small, Gen. Supt. Motive Power, San Francisco.

C. W. Jungen, Mgr. Atl. Coast S. S. Lines, New York.

ENGINEERING DEPARTMENT:

Wm. Hood, Chief Engineer, San Francisco.

J. Q. Barlow, Asst. Chief Engineer, San Francisco.

G. H. Boschke, Chief Engr., Lines in Oregon, Portland.

John D. Isaacs, Consulting Engineer, Chicago.

LAND DEPARTMENT: [1119]

Henry Conlin, Acting Land Agt., S. P. R. R. and O. & C. R .R., San Francisco.

C. C. Gibbs, Land Commissioner, San Antonio.

SUPPLY DEPARTMENT:

W. V. S. Thorne, Director of Purchases, New York.

I. O. Rhoades, Gen. Purchasing Agent, San Francisco.

H. C. Pearce, General Storekeeper, San Francisco.

MISCELLANEOUS:

F. K. Ainsworth, Chief Surgeon and Hospital Manager, San Francisco.

D. Urquhart, Superintendent Commissary, San Francisco.

E. T. Dumble, Consulting Geologist, San Francisco.

G. L. King, Right of Way and Contract Agent, San Francisco.

(69)

SOUTHERN PACIFIC RAILROAD CO.

Incorporated, California, Arizona, and New Mexico, March 10, 1902, for 50 years.

. . . . . .

(72)

. . . . . .

FUNDED DEBT.

First Mortgage Gold Bonds of S. P. R. R. Co., of California, of 1875; series A to G, inclusive; authorized, $46,000,000; issued, $39,285,000; outstanding, $5,111,000.

E Authorized and issued, $5,000,000; dated April 1, 1882; due April 1, 1912; outstanding $3,147,000

F. Authorized, $5,000,000; issued, $4,285,000; dated April 1, 1882; due April 1, 1912; outstanding 1,964,000

[1120]

G. Authorized, $6,000,000; never issued.

Interest, 6 per cent., gold, payable April and October. Trustees, D. O. Mills, New York, and Homer S. King, San Francisco.

Southern Pacific Branch Railway First Mortgage Gold Bonds; authorized, $9,000,000; issued, $3,578,000; dated April 1, 1887; due April 1, 1937; outstanding, $3,533,000. Interest, 6 per cent., gold, payable April and October. Trustee, Union Trust Company of San Francisco.

Southern Pacific R. R. of California, First Consolidated Mortgage Gold Bonds of 1893; authorized, $58,000,000; issued $28,766,000; dated September 15, 1893; due November 1, 1937; outstanding, $4,127,500. Interest, 5 per cent., gold, payable May and November. Trustee, Central Trust Company of New York.

(73)

Northern Railway First Mortgage Gold Bonds of 1888: authorized, $21,000,000; issued and outstand-

ing, $4,751,000; dated October 1, 1888; due October 1, 1938. Interest, 5 per cent., gold, payable April and October. Trustee, Union Trust Company of New York.

Northern California Railway First Mortgage Gold Bonds: authorized, $1,100,000; issued and outstanding, $1,074,000; dated November 1, 1899; due November 1, 1929. Interest, 5 per cent., gold, payable June and December. Trustee, California Safe Deposit & Trust Co., of San Francisco.

California Pacific R. R. First Mortgage Gold Bonds: authorized and issued, $2,250,000; outstanding, $2,232,000; dated January 1, 1867; due January 1, 1912. Interest, 4½ per cent., gold, payable January and July. Trustees, Jas. O'B. Gunn and Chas. E. Green, both of the City of San Francisco, Cal.

[1121]

California Pacific R. R. Second Mortgage Gold Bonds: authorized and issued, $1,600,000; outstanding, $1,595,000; dated August 9, 1871; due January 1, 1911. Interest, 4½ per cent., gold, payable January and July. Trustees, Jas. O'B. Gunn and Chas. E. Green, both of the City of San Francisco, Cal.

Southern Pacific R. R. (of Arizona) First Mortgage Gold Bonds: authorized, issued and outstanding, $10,000,000; Series A, amounting to $6,000,000: dated March 1, 1879; due March 1, 1909; and Series B, $4,000,000; dated March 1, 1880; due March, 1910. Interest, 6 per cent., gold, payable January and July. Trustees, I. W. Hellman, and Union Trust Company, both of the City of San Francisco, Cal.

Southern Pacific R. R. of New Mexico First Mortgage Gold Bonds: authorized, $5,000,000; issued and outstanding, $4,180,000; dated January 1, 1881; due January 1, 1911. Interest, 6 per cent., gold, payable January and July. Trustees, I. W. Hellman and Union Trust Company, both of the City of San Francisco, Cal.

Southern Pacific R. R. First Refunding Bonds: authorized, $160,000,000; issued and outstanding, $88,489,000; dated January 3, 1905; due January 1, 1955. Interest, 4 per cent., January and July. Trustee, The Equitable Trust Co. of New York.

DIRECTORS (11), elected April 14, 1908:

F. K. Ainsworth, San Francisco.
E. E. Calvin, San Francisco.
Wm. D. Cornish, E. H. Harriman (12/3/08), New York.
I. W. Hellman, San Francisco.
Wm. F. Herrin, San Francisco. [1122]
Wm. Hood, San Francisco.
H. A. Jones, San Francisco.
Homer S. King, San Francisco.
C. H. Redington, San Francisco.
W. R. Scott ("), San Francisco.
Jas. K. Wilson, San Francisco.

(74)

OFFICERS, elected April 16, 1908:

E. H. Harriman, President (Dec. 3/08), New York.
E. E. Calvin, Vice-President, San Francisco.
C. H. Redington, Second Vice-President, San Francisco.

Wm. Mahl, Comptroller, New York.

A. K. Van Deventer, Treasurer, New York.

C. H. Redington, Assistant Treasurer, San Francisco.

G. L. King, Secretary (Jany. 1, 1909), San Francisco.

Jos. Hellen, Assistant Secretary, New York.

Chas. P. Lincoln, Assistant Secretary, San Francisco.

C. B. Seger, Auditor (1908), San Francisco.

Alex. Millar, Transfer Agent, New York.

Joseph Hellen, Transfer Agent, New York.

Otto C. Kahn, Transfer Agent, New York.

W. H. James, Transfer Agent for Bonds, New York.

James Watkins, Transfer Agent for Bonds, New York.

Chas. P. Lincoln, Transfer Agent for Bonds, San Francisco.

Joseph Hellen and O. C. Kahn, New York, are Acting Transfer Agents for Bonds of S. P. R. R. Cos. of California and of New Mexico.

Alfred S. Donaw, Statutory Agent in Arizona (May 4/09), Tucson.

J. A. Mahoney, Statutory Agent in N. Mexico, Deming. **[1123]**

From Manual No. 8, for the year 1909, marked Plaintiff's Exhibit "PPP", the title page and index and such matter as appears upon pages 36, 60, 66, 67, 68, 69, 70, 71, 74, 75 and 76, together with the correc-

tions appearing therein in red ink, which I will read into the record as follows:

SOUTHERN PACIFIC and AUXILIARY COMPANIES.

—oOo—

Manual No. 8—November 1, 1909.

—oOo—

Notice:—Officers receiving this volume will confer a favor on the undersigned by giving him early notice of errors noted, or changes necessary, in the following pages.

Alex. Millar, Secretary.

SOUTHERN PACIFIC and AUXILIARY COMPANIES.

Manual No. 8—1909.

of

Annual Meetings, Directors, Officers, Capital Stock, Funded Debt, Etc.

November 1, 1909.

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KERN TRADING & OIL CO.

Incorporated, California, May 22, 1903, for 50 years.

ANNUAL MEETING, San Francisco, first Wednesday in May, at 11 A.M. Two weeks' notice to be given, either published daily for at least two weeks previously or by writing.

Regular meeting of Directors, second Wednesday of each month, at 12, noon.

No specification for close of fiscal year.

CAPITAL STOCK: authorized and issued, $1,000,000. Shares $100 each.

DIRECTORS (5), elected May 1, 1907:

E. E. Calvin, San Francisco.

E. T. Dumble, San Francisco.

J. E. Foulds, San Francisco.

C. H. Redington (July 30, 1908), San Francisco.

W. R. Scott (July 30, 1908), San Francisco.

OFFICERS, elected May 1, 1907:

E. E. Calvin, President, San Francisco.

E. T. Dumble, Vice-President, San Francisco.

G. L. King, Secretary (Jan. 1, 1909), San Francisco.

C. H. Redington, Treasurer (June 12, 1907), San Francisco.

C. B. Seger, Auditor (1908), San Francisco.

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RIO BRAVO OIL CO.

Incorporated, Texas, March 3, 1903, for 50 years.

ANNUAL MEETING, Houston, Texas, second Monday in January. Written notice to be given at least five days previously.

Meetings of Directors can be held at any time.

Fiscal year closes June 30.

CAPITAL STOCK: authorized, $1,000,000; issued, $850,000; shares $100 each.

DIRECTORS (5), elected January 11, 1909:

G. R. Cottingham, Houston.

E. T. Dumble, Houston.

Thornwell Fay, Houston.

R. S. Lovett (Nov. 9), New York.

W. G. Van Vleck, Houston.

OFFICERS, elected January 11, 1909:

R. S. Lovett, President (Nov. 9), New York.

Thornwell Fay, Vice-President, Houston.

G. R. Cottingham, Secretary, Houston.

B. C. Cushman, Treasurer, Houston.

(66)

SOUTHERN PACIFIC COMPANY.

Incorporated by Act of General Assembly of the State of Kentucky, approved March 17, 1884, in perpetuity, for the purpose of unifying in management lines of railroad extending from New Orleans, La., to San Francisco, Cal., to Portland, Ore., and to Ogden, Utah.

. . . . . .

The Southern Pacific Company is the principal owner of the capital stock of the following companies, and operates them under leases to it: Cen-

tral Pacific Railway, Oregon and California Railroad, Southern Pacific Railroad, South Pacific Coast [1128] Railway, Nevada & California Railway.

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The Southern Pacific also owns all the stock of the following companies, whose lines are leased to the Southern Pacific Railroad Co.: Coast Line Railway, Inter-California Railway, San Bernardino & Redlands Railroad, San Francisco & Napa Railway; and of the California Northeastern Railway, which is leased to the Central Pacific Railway Co.

The Southern Pacific is also the principal owner of the capital stock of the following companies, which operate their own lines, viz: Galveston, Harrisburg & San Antonio Railway, Texas and New Orleans Railroad, Louisiana Western Railroad, Maricopa and Phoenix Railroad, Houston & Texas Central Railroad, Coos Bay, Roseburg & Eastern Railroad and Navigation, Houston, East and West Texas Railway, Houston & Shreveport Railroad, Gila Valley, Globe & Northern Railway, Phoenix & Eastern Railroad, Pacific Mail Steamship, Morgan's Louisiana & Texas Railroad and Steamship; and owner of half the stock of the Northwestern Pacific Railroad Co. and of the Sunset Railroad Co.; and it operates under leases from the Atchison, Topeka & Santa Fe the lines of the New Mexico & Arizona and the Sonora Railway companies.

The Morgan's Louisiana & Texas Railroad & Steamship Co. is the principal owner of stocks of the following companies, which are operated under their

own organizations, viz: Direct Navigation Co., Iberia & Vermilion Railroad.

The Southern Pacific Co. also operates steamship lines from New Orleans to Havana, and from New York to New Orleans, and Galveston, Texas, and owns 21 ocean steamers. The Pacific Mail Steamship Co. operates lines from San Francisco to ports [1129] in Japan, China, and South and Central America, and owns 15 ocean steamers. Companies controlled by the Southern Pacific Co. also operate ferry, harbor and river lines in Louisiana, Texas and California. The total of all routes is about 15,000 miles.

The Mojave Division of the Southern Pacific Railroad, 242 miles, is leased to the Atchison, Topeka & Santa Fe Railway Company until 1979, at an annual rental of $218,133.

DIRECTORS (15), elected April 7, 1909:

W. Bayard Cutting, New York.
Henry W. de Forest, Oyster Bay, N. Y.
Robert Goelet, Newport, R. I.
Robert W. Goelet, Newport, R. I.
Marvin Hughitt, Chicago.
H. E. Huntington, New York.
R. S. Lovett, New York.
Clarence H. Mackay, New York.
Ogden Mills, Staatsburg, N. Y.
Charles A. Peabody, New York.
Wm. Rockfeller (Sept. 14), New York.
J. H. Schiff (Sept. 14), New York.
W. V. S. Thorne, New York.

Frank A. Vanderlip, New York.
(One vacancy).

(68)

EXECUTIVE COMMITTEE (6), elected April 13, 1909:

R. S. Lovett, Chairman.
Hy. W. de Forest.
Ogden Mills. [**1130**]
Wm. Rockefeller (Sept. 14).
J. H. Schiff (Sept. 14).
Frank A. Vanderlip.

OFFICERS.

EXECUTIVE DEPARTMENT, elected April 13, 1909:

R. S. Lovett, President, (Oct. 28), New York.
J. C. Stubbs, Vice-President, Chicago.
J. Kruttschnitt, Vice-President, Chicago.
E. E. Calvin, Vice-President, San Francisco.
Wm. Mahl, Vice-President (Oct. 28), New York.
Alex. Millar, Clerk and Secretary, New York.
Joseph Hellen, Asst. Clerk and Asst. Sec., New York.
John B. Weaver, Assistant Clerk, Beechmont, Ky.
C. B. Seger, Asst. Secretary, San Francisco.
W. F. Ingram, Assistant Secretary, San Francisco.
A. K. Van Deventer, Treasurer, New York.
C. H. Redington, Assistant Treasurer, San Francisco.

Geo. M. Thornton, Cashier, New York.

Geo. S. Evans, Cashier, San Francisco.

Alex. Millar, Transfer Agent, New York.

Otto C. Kahn, Transfer Agent for Bonds, New York.

R. Troup, Transfer Agent for Bonds, New York.

Union Trust Co., Registrar of Transfers of Common Stock, New York.

Guaranty Trust Co., Registrar of Transfers of Preferred Stock, New York.

LEGAL DEPARTMENT.

New York. [1131]

General Counsel.

Maxwell Evarts, Attorney.

Gordon M. Buck, Attorney.

San Francisco.

Wm. F. Herrin, Chief Counsel.

P. F. Dunne, General Attorney.

J. E. Foulds, Attorney.

D. R. Sessions, Claims Attorney.

Jere T. Burke, Tax Attorney.

Portland.

J. W. Morrow, Right of Way and Tax Agent.

Chicago.

F. C. Dillard, Interstate Commerce Attorney.

(69)

ACCOUNTING DEPARTMENT:

Wm. Mahl, Comptroller, New York.

H. B. Johnson, Assistant Comptroller, New York.

Erastus Young, General Auditor, Omaha.

C. B. Seger, Auditor, San Francisco.

W. F. Ingram, Assistant Auditor, San Francisco.

D. W. Horsburgh, Auditor of Freight Accts., San Francisco.

G. D. Smith, Asst. Auditor of Freight Accts., San Francisco.

G. E. Bissonnet, Auditor of Pass. Accts., San Francisco.

R. Adams, Auditor of Disbursements, San Francisco.

O. F. Giffin, Auditor of Equipment Accounts, San Francisco.

J. M. Brewer, Freight Claim Agent, San Francisco.

TRAFFIC DEPARTMENT:

J. C. Stubbs, Traffic Director, Chicago.

E. O. McCormick, Asst. Traffic Director, Chicago.

P. C. Stohr, Asst. Traffic Director, Chicago.

[1132]

H. A. Jones, Freight Traffic Manager, San Francisco.

G. W. Luce, General Freight Agent, San Francisco.

T. A. Graham, Assistant General Freight and Passenger Agent, Los Angeles.

S. N. Bostwick, Asst. General Freight Agent, San Francisco.

C. J. Jones, Asst. General Freight Agent, San Francisco.

J. G. Stubbs, Assistant General Freight Agent, San Francisco.

Chas. S. Fee, Passenger Traffic Manager, San Francisco.

Jas. Horsburgh, Jr., Gen. Passenger Agent, San Francisco.

R. A. Donaldson, Asst. Gen. Pass. Agent, San Francisco.

F. E. Batturs, Asst. Gen. Passenger Agent, San Francisco.

H. R. Judah, Asst. Gen. Passenger Agent, San Francisco.

R. B. Miller, Gen. Freight Agent, Lines in Oregon, Portland.

W. E. Coman, Asst. Gen. Freight Agent, Lines in Oregon, Portland.

W. D. Skinner, Asst. Gen. Freight Agent, Lines in Oregon, Portland.

Wm. McMurray, Gen. Passenger Agent, Lines in Oregon, Portland.

J. M. Scott, Asst. General Passenger Agent, Lines in Oregon, Portland.

E. B. Carson, General Baggage Agent, San Francisco.

H. P. Thrall, Mail Traffic Manager, Chicago.

TRANSPORTATION DEPARTMENT:

J. Kruttschnitt, Director of Maint. and Operation, Chicago.

W. B. Scott, Asst. Director of Maint. and Operation, Chicago. [1133]

W. A. Worthington, Asst. to Director of Maint. and Operation, Chicago.

(70)

TRANSPORTATION DEPARTMENT—Continued.

E. E. Calvin, Gen. Manager, Pacific System, San Francisco.

J. P. O'Brien, Gen. Manager, Oregon Lines, Portland.

W. H. Bancroft, Gen. Manager Line East of Reno, Salt Lake City.

W. R. Scott, Asst. Gen. Mgr. Pac. System, San Francisco.

J. H. Young, Gen. Supt. Northern District, San Francisco.

H. V. Platt, Gen. Supt. Southern District, Los Angeles.

M. J. Buckley, Gen. Supt., Oregon Lines, Portland.

Geo. F. Richardson, Supt. of Transportation, San Francisco.

Epes Randolph, Gen. Manager, Sonora Ry., Tucson.

F. S. Rawlins, Superintendent Telegraph, San Francisco.

H. J. Small, Gen. Supt. Motive Power, San Francisco.

C. W. Jungen, Mgr. Atl. Coast S. S. Lines, New York.

ENGINEERING DEPARTMENT:

Wm. Hood, Chief Engineer, San Francisco.

J. Q. Barlow, Asst. Chief Engineer, San Francisco.

G. H. Boschke, Chief Engr., Lines in Oregon, Portland.

John D. Isaacs, Consulting Engineer, Chicago.

LAND DEPARTMENT:

B. A. McAllaster, Land Commissioner, San Francisco.

C. C. Gibbs, Land Commissioner, San Antonio.

SUPPLY DEPARTMENT:

W. V. S. Thorne, Director of Purchases, New York.

Sidney Williams, Asst. Director of Purchases, New York.

I. O. Rhoades, Gen. Purchasing Agent, San Francisco.

H. C. Pearce, General Storekeeper, San Francisco.

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MISCELLANEOUS:

F. K. Ainsworth, Chief Surgeon and Hospital Manager, San Francisco.

D. Urquhart, Superintendent Commissary, San Francisco.

E. T. Dumble, Consulting Geologist, San Francisco.

G. L. King, Right of Way and Contract Agent, San Francisco.

(71)

SOUTHERN PACIFIC RAILROAD CO.

Incorporated, California, Arizona and New Mexico, March 10, 1902, for 50 years.

. . . . . .

(74)

First Mortgage Gold Bonds of S. P. R. R. Co., of California, of 1875, Series A to G, inclusive; authorized, $46,000,000; issued, $39,285,000; outstanding, $5,111,000.

E.	Authorized and issued, $5,000,000; dated April 1, 1882; due April 1, 1912; outstanding.....	$ 3,147,000
F.	Authorized, $5,000,000; issued, $4,285,000; Dated April 1, 1882; due April 1, 1912; outstanding.	1,964,000
G.	Authorized, $6,000,000; never issued.	

Interest, 6 per cent., gold, payable April and October. Trustees, D. O. Mills, New York, and Homer S. King, San Francisco.

Southern Pacific Branch Railway First Mortgage Gold Bonds: authorized, $9,000,000; issued, $3,578,-000; dated April 1, 1887; due April 1, 1937; outstanding, $3,533,000. Interest, 6 per cent., gold, payable April and October. Trustee, Union Trust Company of San Francisco.

Southern Pacific R. R. of California, First Consolidated [**1135**] Mortgage Gold Bonds of 1893; authorized, $58,000,000; issued $28,766,000; dated September 15, 1893; due November 1, 1937; outstanding $4,127,500. Interest 5 per cent., gold, payable May and November. Trustee, Central Trust Company of New York.

(75)

Northern Railway First Mortgage Gold Bonds of

1888: authorized, $21,000,000; issued and outstanding, $4,751,000; dated October 1, 1888; due October 1, 1938. Interest, 5 per cent., gold, payable April and October. Trustee, Union Trust Company of New York.

Northern California Railway First Mortgage Gold Bonds; authorized, $1,100,000; issued and outstanding, $1,074,000; dated November 1, 1899; due November 1, 1929. Interest, 5 per cent., gold, payable June and December. Trustee, California Safe Deposit & Trust Co., of San Francisco.

California Pacific R. R. First Mortgage Gold Bonds; authorized and issued, $2,250,000; outstanding, $2,232,000; dated January 1, 1867; due January 1, 1912. Interest 4½ per cent., gold, payable January and July. Trustees, Jas. O'B. Gunn and Chas. E. Green, both of the City of San Francisco, Cal.

California Pacific R. R. Second Mortgage Gold Bonds; authorized and issued, $1,600,000; outstanding, $1,595,000; dated August 9, 1871; due January 1, 1911. Interest 4½ per cent., gold, payable January and July. Trustees, Jas. O'B. Gunn and Chas. E. Green, both of the City of San Francisco, Cal.

Southern Pacific R. R. (of Arizona) First Mortgage Gold Bonds: authorized and issued, $10,000,000; outstanding; Series B, $4,000,000; dated March 1, 1880; due March 1910. Interest 6 per cent., gold, payable January and July. Trustees, I. W. [1136] Hellman and Union Trust Company, both of the City of San Francisco, Cal.

Southern Pacific R. R. of New Mexico First Mort-

gage Gold Bonds: authorized, $5,000,000; issued and outstanding $4,180,000; dated January 1, 1881; due January 1, 1911. Interest 6 per cent., gold, payable January and July. Trustees, I. W. Hellman and Union Trust Company, both of the City of San Francisco, Cal.

Southern Pacific R. R. First Refunding Bonds: authorized $160,000,000; issued, $108,353,000; outstanding, $108,303,000; dated January 3, 1905; due January 1, 1955. Interest 4 per cent., January and July. Trustee, The Equitable Trust Co. of New York.

DIRECTORS (11), elected April 12, 1910:

F. K. Ainsworth, San Francisco.
E. E. Calvin, San Francisco.
I. W. Hellman, San Francisco.
Wm. F. Herrin, San Francisco.
Wm. Hood, San Francisco.
Wm. Mahl (Mch 16, 1910), New York.
E. O. McCormick (Jan. 12, 1911), San Francisco.
R. S. Lovett, New York.
C. H. Redington, San Francisco.
W. R. Scott, San Francisco.
Jas. K. Wilson, San Francisco. **[1137]**

(76)

Wm. Hood, Chief Engineer, San Francisco.
Alex. Millar, Transfer Agent, New York.
Joseph Hellen, Transfer Agent, New York.
Otto C. Kahn, Transfer Agent, New York.
W. H. James, Transfer Agent for Bonds, New York.

James Watkins, Transfer Agent for Bonds, New York.

Chas. P. Lincoln, Transfer Agent for Bonds, San Francisco.

R. Troup, Transfer Agent for bonds, New York.

B. A. McAllaster, Land Commissioner, San Francisco.

Alfred S. Donaw, Statut'y Agt. in Arizona, Tucson.

J. A. Mahoney, Statutory Agent in N. Mexico, Deming.

(In black typewriting)

OFFICERS:

R. S. Lovett, Prest., N. Y.
Wm. F. Herrin, V. P., S. F.
E. E. Calvin, 2nd V. P., S. F.
E. O. McCormick, 3rd V. P., S. F.
Wm. Mahl, 4th V. P., N. Y.
C. H. Redington, 5th V. P., S. F.
Wm. Mahl, Comptroller, N. Y.
A. K. Van Deventer, Treas., N. Y. [1138]
C. H. Redington, Asst. Treas., S. F.
G. L. King, Secty., S. F.
Alex. Millar, Asst. Secty., N. Y.
Jos. Hellen, Asst. Secty., N. Y.
C. P. Lincoln, Asst. Secty., S. F.
A. D. McDonald, Auditor, S. F.
Wm. Hood, Chief Engr., S. F.

It is stipulated between the counsel for the respective parties to this cause that the several manuals herein offered in evidence and marked respectively

as Plaintiff's Exhibits "III" to "PPP", inclusive, may, for their proper care and preservation, be withdrawn by counsel for the defendants herein, to be by them returned at any time into court when the same are required for further examination.

Mr. Lewers—That is agreeable to us, with the understanding that all of these manuals will eventually be returned to our possession and that we are to produce them in court only during such time as they may be needed there.

Mr. Mills—You mean before the trial court?

Mr. Lewers: Yes.

Whereupon the further taking of testimony herein was adjourned until Wednesday, July 31, 1912, at 3 o'clock p.m. [1139]

On Wednesday, July 31, 1912, at three o'clock p.m., the further taking of testimony herein was, by agreement and consent of counsel, adjourned until Thursday, August 1st, 1912, at ten o'clock a.m., at the same place; and at said last-mentioned time, Willis N. Mills, Special Assistant United States Attorney General, appeared before the special examiner and the following proceedings were had:

Mr. Mills—I desire to announce, Mr. Examiner, that Mr. Hoehling, counsel for all the defendants except the Equitable Trust Company of New York, was subpoenaed to produce certain papers desired by the Government, at 10 o'clock of this day, and that upon telephonic request from Mr. Lewers, acting for Mr. Hoehling and the defendants, it has been agreed upon my part, without waiving any rights under the

Government subpoena referred to, and because of the alleged voluminous bulk of papers necessary to be examined in order to comply with the subpoena, to go to Mr. Hoehling's office and informally examine the papers, in order to eliminate unnecessary documents; and I therefore suggest that a continuance of the hearing be had until Friday, August 2d, 1912, at ten o'clock a.m., at the same place.

Whereupon, the further taking of testimony herein was adjourned until the time and place named.

On Friday, August 2d, 1912, at ten o'clock a.m., the further taking of testimony herein was resumed, pursuant to the adjournment; Willis N. Mills, Special Assistant United States [**1140**] Attorney General, appearing on behalf of the plaintiff, and Charles R. Lewers, Esq., and A. A. Hoehling, Jr., Esq., appearing on behalf of the defendants.

Whereupon the following proceedings were had:

Mr. Lewers—Owing to the misunderstanding that has taken place concerning these records and letters, I would like to have it understood that demand was made by the Department of Justice, or some representative—

Mr. Mills—Pardon me for interrupting you. If you go into that question at all, I shall have to call Mr. Ambrose here and swear him.

Mr Lewers—You are not disputing the fact that Mr. Hoehling notified Mr. Knaebel that these letters were here and the Department could have them, are you?

Mr. Mills—Is this all going into the record?

Mr. Lewers—It certainly is.

Mr. Mills—You can make your objection, and I shall take steps to put into the record what did happen. I don't regard it as at all essential. You can make the statement, if you wish, that you were willing at all times to give up these papers; but I don't want to have testimony going in unless it is under oath.

Mr. Lewers—As an attorney in the case, I claim the right to make statements as an attorney, and upon my oath as an attorney; and I am accustomed to have those taken at their face value, and I am not accustomed to make the other kind. [**1141**]

Mr. Mills—There is no necessity for you to make those remarks. I have as much respect for you probably, as you are entitled to, as an attorney. I regard this as a side issue. I am willing to take Mr. Hoehling's statement of the matter, but I do not wish to have your unsworn statements go into the record as testimony; and I serve notice on you now that if you persist in making them I shall meet them by producing witnesses to show it is not so.

Mr. Lewers—If you deny the accuracy of it, that is another story.

Mr. Mills—I wont deny anything as long as it is not raised. I am willing to take Mr. Hoehling's statement that he was willing to give up those papers.

Mr. Lewers—I merely asked you whether or not, before taking this testimony, you would not have the courtesy to admit that we had given you every opportunity to examine these papers and examine our

letter-books, page by page, and that we had informed the Department of Justice that these letters could be had, and that it was not necessary to get out a subpoena duces tecum; that we have extended to you favors you could not get under your subpoena duces tecum. That is all I desired to ask you—whether you would agree to have the record show that fact.

Mr. Mills—I will agree to have the record show that that statement was made both by you and Mr. Hoehling. and, I have no reason to contest that, because I regard it as immaterial, but, as I stated to you, I was told an entirely different story by the man who went over to get the papers. I don't want to put in issue the veracity of Mr. Hoehling, as you seem willing to do. I am willing to accept Mr. Hoehling's statement. [1142]

Mr. Lewers—That is all I want.

Mr. Mills—I am simply stating to you that I was told an entirely different story, namely, that the papers would not be given up without the consent of Mr. Evarts.

Mr. Hoehling—That is correct. But the consent was obtained.

Mr. Mills—It seems to me all this statement may go out of the record and the record state simply that upon request Mr. Hoehling was willing to give up the papers and allow us to examine them; that the special agent who went over there misunderstood Mr. Hoehling, or could not get the paper, and thereupon subpoena was issued, and upon issuance of the subpoena Mr. Hoehling exhibited the books to me.

Mr. Lewers—That is not exactly the way it occurred. Perhaps that statement is hardly fair to you, Mr. Mills. The fact, as it occurred, as I understand it, is that after Mr. Ambrose went over there, with some other gentleman whose name I have forgotten, and was informed that it was necessary to refer the matter to our general counsel in New York, Mr. Hoehling called up Mr. Knaebel, of the Department of Justice, and informed him that the papers were there, that they had asked for, and that he, Mr. Hoehling, would gladly turn them over to the Department of Justice for their examination. It is possible that owing to the absence of Mr. Knaebel this later message was not brought to your attention.

Mr. Mills—I didn't talk with Mr. Knaebel; but I was told that Mr. Hoehling very courteously called up Mr. Knaebel and said he had made diligent search and could not find the papers. [**1143**]

Mr. Hoehling—That is absolutely erroneous.

Mr. Mills—I accept your statement, Mr. Hoehling. You have come in with the papers, and I am willing to make that statement.

Mr. Lewers—My only object was to prevent the record from showing that we had absolutely refused, until compelled by subpoena duces tecum, to produce these papers.

Mr. Mills—I will accept that statement, unequivocally.

Mr. Lewers—That is all I want. At this time, in accordance with the stipulation entered into at the time certain manuals of the Southern Pacific Com-

pany were introduced in evidence, I desire to object to the introduction of the manuals, or, rather, to certain portions of them, as follows: I object to the introduction of all portions of these manuals other than the lists of subsidiary companies and names of officers of the Southern Pacific Company, Southern Pacific Railroad Company, and Kern Trading and Oil Company, on the ground that all of the other matter contained in these manuals, and, specifically, all the other matter con- in the portions of these manuals read into the record, are irrelevant and immaterial to any issue in this case, in that they concern companies, properties, and officers in no way connected with any of the issues in this case, and not parties to this case; and I specifically object to the introduction of those portions of these manuals concerning funded and other indebtedness, or mortgages, trust deeds, and so forth, contained in these manuals, on the ground that the matters contained in these manuals in regard to these subjects, and particularly [1144] contained in the portions of the manuals introduced and read into evidence, do not concern any of the issues in this case and do not refer to or belong to any of the defendants in this case, in that they do not concern, cover or in any way refer to the land in litigation in this case, to-wit, the land in township 30-23. I make the further objection that no foundation whatever has been introduced to show that the mortgage indebtedness of the Southern Pacific Railroad Company referred to in this evidence was in any way connected with this suit, or in any way connected

with any of the defendants in this suit in reference to the land in question, and that the introduction of this testimony is needlessly encumbering the record. For all of the foregoing reasons I also move that this testimony, with the exceptions noted, be stricken from the record.

Mr. Mills—To be clearly understood, I will ask you whether your objection goes to that portion of the manuals introduced to show the control by the Southern Pacific Company, the Kentucky corporation in this suit, of the Southern Pacific Railroad Company, the other defendant, by stock ownership, to the extent of showing the lack of fiscal autonomy on the part of the Southern Pacific Railroad Company.

Mr. Lewers—I don't know that I know what you mean. The objection excepts those portions of the manuals which refer to auxiliary companies, lists of auxiliary companies.

Mr. Hoehling—Of which the Southern Pacific Railroad Company appears to be a part of the list in the manual.

Mr. Lewers—As I understand it, each of the manuals shows that the property of the Southern Pacific Company is operated by the Southern Pacific Railroad Company—that is, [1145] certain property is—under a lease; and that the Southern Pacific Company owns a majority of the stock of the Southern Pacific Railroad Company. Insofar as that part of the exhibits is concerned, I have no objection.

Mr. Mills—I am going to ask you, Mr. Lewers and Mr. Hoehling, whether these letter-press books, which

purport to be copies of letters written by D. A. Chambers, resident attorney, formerly, for the Southern Pacific Railroad Company, contain the letters that were actually written by Mr. Chambers; that is, will you admit those are his signatures?

Mr. Lewers—Yes.

Mr. Hoehling—So far as I know. There were delivered to me as the books that he kept.

Mr. Lewers—I think that there is no doubt about it.

Mr. Hoehling—No doubt at all.

Mr. Mills—May I have the volume containing the letters written in 1903?

Mr. Lewers—That is volume 61. That volume has most of them in. (Letter-press copy-books handed to counsel for plaintiff).

Mr. Mills—I ask you, Mr. Hoehling, whether these letter-press copy-books, numbered 61, 62 and 63, came into your possession as an attorney for the Southern Pacific Railroad Company from the office of the late D. A. Chambers, who was, during his lifetime, the resident attorney in this city of the same company? [1146]

Mr. Hoehling—They did. Mr. Chambers died, I think, in perhaps August, 1907. I was appointed attorney for the Southern Pacific Company in, perhaps, February or March of 1908. Some weeks after my appointment, these letter-press copy-books, together with others, were brought to my office and delivered to me by Mr. John B. Bloss, who for many

years had been the assistant to Mr. Chambers in that business.

Mr. Mills—And all of the letters which on their face purport to indicate that Mr. Chambers wrote them or signed them, were, in your opinion, written and signed by Mr. Chambers?

Mr. Hoehling—They were.

Mr. Mills—I offer in evidence letter-press copy of letter dated October 12, 1903, addressed to Charles W. Eberlein, acting land agent of the Southern Pacific Railroad Company, signed by Mr. D. A. Chambers, found on page 272, and will read the same into the record of the case.

Mr. Lewers—I desire to offer the general objection to the introduction of this letter, and ask that it be considered as made, without repetition, to all succeeding letters contained in these books, that the testimony is without sufficient foundation at this time, in that, if these letters can have any purpose at all, the purpose is to question the official act of the Commissioner of the General Land Office in releasing from suspension the lands embraced within township 30 23, that is, the lands included in this suit, which official action was evidenced by certain [1147] letters transmitted by the General Land Office and the Commissioner thereof to the local United States land office at Visalia, California, in the months of February and April, 1904. The objection is directed specifically to the fact that no foundation has been laid to show that the Commissioner of the General Land Office, acting in his quasi-judicial capacity in passing

upon this matter, was in any way prevented, or that the instrumentalities of his office were in any way hindered so as to prevent him, from reaching a judicial or quasi-judicial, determination of the matters contained in these letters, and that the testimony now offered, is offered, if for any purpose, apparently to question the official significance of the acts and letters of the Commissioner of the General Land Office.

Mr. Mills—After this somewhat loquacious objection I suppose I ought to illuminate the mind of counsel so far as my purpose goes, by stating that the purpose of the introduction of these letters is to show knowledge on the part of the Southern Pacific Railroad Company of the mineral character of these lands at a time when they were selected as agricultural lands under an agricultural grant.

Mr. Lewers—I am glad to know that that is the purpose of the offer.

The letter last referred to and read in evidence is as follows: [1148]

Visalia Application List 44, primary limits;
" " " 87, indemnity "
October 12, 1903.

Charles W. Eberlein, Esq.,
Acting Land Agent Southern Pacific R. R. Co.,
San Francisco, California.

Dear Sir:

The Southern Pacific Railroad Co. tendered the above lists to the Register & Receiver, and they rejected them because said lands, with a large body of other lands, were suspended from further disposition

by the telegraphic order of the Commissioner of the General Land Office of February 28, 1900, which order was issued because of allegations that the lands contained petroleum.

Mr. Madden took an appeal from the action of the R. & R. as to each of these lists and asked a hearing.

We are continually running up against this order of the Commissioner of the General Land Office in respect to lands within the Southern Pacific grant which have been listed or selected, or which the Company desires to list or select.

Of course nothing can be done here towards getting patents, or the approval of our lists by the R. & R., (for lands within the order), until this order is revoked, and the Commissioner will not revoke it as to any lands until the Special Agent has reported that the lands do not contain petroleum.

Special Agent E. C. Ryan (headquarters at Los Angeles, Cala.), has charge of the examination of these **[1149]** lands. He was here recently, and his attention was directed to the matter, and he was urged to go over the lands and make his report as rapidly as possibly.

In looking through our pending Visalia lists, I came across the two named in the caption, and on the 7th instant, I addressed a letter to the Commissioner calling his attention to the lands in these lists, and asking that he direct his Special Agent to report on them at the earliest possible date. It may be that you can hasten Mr. Ryan's report. If he reports that

the lands on these lists are non-mineral, (do not contain petroleum), I can then ask to have these two lists returned to the R. & R. for approval.

On the other hand, if he reports that they are petroleum lands, I will then ask that a hearing be ordered in accordance with Mr. Madden's appeals. The hearing, of course, will be an expense to the Railroad Company.

Yours truly,

(Sgd) D. A. CHAMBERS.

Mr. Mills—I next offer in evidence letter-press copy of letter found at page 274 of the letter-press copy-book, dated October 12, 1903, addressed to J. Kruttschnitt, Fourth Vice-President of the Southern Pacific Company, signed by D. A. Chambers, which I will read into the record as follows:

Survey of part of Township 30 S. Range 23 E., M. D. M., Visalia Land district, California, Plat Approved August 1, 1902. **[1150]**

October 12, 1903.

J. Kruttschnitt, Esq.,
4th Vice President, Southern Pacific Co.,
San Francisco, California.

Dear Sir:

I have received your letter, dated New Orleans the 9th inst., in relation to the above survey, with copy of Mr. Charles W. Everlein's letter to you of the 26th ult., and copy of your telegram to him in reply, dated New Orleans the 9th inst.

I find that the plat of part of the above township,

approved August 1, 1902, embraces Sections 15, 17, 19, 21, 23, 25, 27, 29, 33 and 35.

The Southern Pacific Railroad Co. has received a patent for the NW¼ Sec. 17, and the NW¼ of Sec. 19, T. 30 S., R. 23 E., under plat approved March 19, 1856, but has not received patent for any of the lands covered by the plat approved August 1, 1902, all of which lie within the indemnity limits of the main line grant.

Mr. Eberlein says that no selection of any of these lands had, when he wrote, been made by the Southern Pacific R. R. Co., but that he expected to tender a selection list within a week or ten days from the date of his letter to you, and he suggested that you might ask that special attention be given here to the patenting of this list.

As soon as advised that such list has been transmitted by the R. & R. to the General Land Office, I will, at the earliest possible date urge the issuing of a special patent for the lands selected. **[1151]**

(I endeavor to get the earliest action practicable by the General Land Office upon all lists of the Southern Pacific Railroad Co. as well as upon the lists of our other railroad companies. I am every day at work upon these lists. But the land Office is pretty slow.)

Please call Mr. Eberlein's attention to the fact that the Commissioner of the General Land Office, by his telegraphic order of February 28, 1900, to the R. & R. at Visalia, suspended from disposal the lands

in T. 30, S., R. 23 E., together with the lands in a great many other townships, upon allegations that the said townships contained petroleum.

Upon inquiry today I find that this withdrawal order as to T. 30 S., R. 23 E., has not been revoked, and will not be until a Special Agent has reported that said lands are not petroleum lands.

Mr. E. C. Ryan (Office at Los Angeles, Cal.), is the Special Agent who has been directed to report upon a large body of lands in the Visalia land district, embraced in the Commissioner's order above referred to. Mr. Ryan has been here lately, and has been urged by officials of the Land Office to report, as rapidly as possible, upon the townships involved.

I presume the Register and Receiver may not approve the lists of the lands in this township which Mr. Eberlein has tendered or will tender, because of the Commissioner's aforesaid order of February 28, 1900. If Mr. Eberlein will write me just what lands he desires to select in T. 30 S., R. 23 E., I can ask the Commissioner of the General Land [1152] Office to direct Special Agent Ryan to examine said lands as quickly as possible and make special report as to their character.

I desire to say further that action is not taken by the General Land Office upon an indemnity list of a railroad company until the expiration of three or four months from the date of the approval of the list by the R. & R. For instance, if the R. & R. approve an indemnity list of the Southern Pacific R. R. Co., Visalia District, October 14, 1903, the land office here

will not take up such list with a view to patenting the lands before the January, 1904, monthly returns of the Visalia Office have reached here (and been posted on the tract books). This is a standing rule, prescribed by the Secretary of the Interior, and the reason of it is, that if a homesteader should settle on a tract October 14, 1903, he has three months in which to file his Homestead Application at Visalia, and the General Land Office hold that they cannot determine that our selections are free from adverse claims until the January returns are received.

I inclose a copy of this letter, in case you may wish to hand it to Mr. Eberlein.

Yours truly,

(Sgd) D. A. CHAMBERS.

Mr. Mills—In the letter just read into the record there is a reference made by Mr. Chambers to a letter from J. Kruttschnitt to Mr. Chambers, dated at New Orleans, October 9, 1903, in relation to the survey discussed in **[1153]** the letter, also a copy of a letter to Mr. Kruttschnitt mailed to Mr. Chambers written by Charles W. Eberlein and dated September 26; also a copy of a telegram sent by Mr. Kruttschnitt to Mr. Eberlein in reply to that letter, dated New Orleans, October 9, 1903. Have you those letters and telegrams, Mr. Hoehling, among the papers which were turned over to you?

Mr. Hoehling—Upon the receipt of the records, papers and letter-press copy-books from the office of Mr. Chambers under the circumstances that I have already described, I found that they were in very bad

shape, the papers not being assembled with reference to subject-matter or in reference to particular lists, but just a jumble of papers that were deposited on the floor of my back office. For some considerable time thereafter I caused those papers to be carefully assorted and arranged with reference to subjects—lists, matters of that kind—and appropriately filed away. Neither one of the letters that you have just referred to was found by me among the papers so turned over; and I might add that since you have been here and since I have talked with you, I have, personally and through Mr. Ogilby, my assistant, caused careful search to be made to see that if the letters were anywhere in Mr. Chambers' records and I have failed to discover any with the exception of one letter, dated December 10, 1903, from Mr. Eberlein to Mr. Chambers and which I have explained to you I have heretofore turned over to Mr. Lewers.

Mr. Mills—That was mailed to Mr. Lewers, was it?

[1154]

Mr. Hoehling—No. When Mr. Lewers came here Saturday morning of last week, he asked me to let him have the letter-press copy-book or books and any letters pertaining to that which I had among the Chamber files. I turned the books over to him, and that one letter, and Mr. Lewers afterwards advised me he had sent that to the San Francisco office.

Mr. Lewers—We are now engaged in an effort to locate the specific letters you have referred to as having been written to Mr. Kruttschnitt, and also any other letters that are referred to, and the search is

being made in all possible directions that occur to us for these letters, and we will endeavor to locate them if we possibly can.

Mr. Mills—Do I understand the statement that you make includes a reference to all original letters or copies of letters transmitted to Mr. Chambers?

Mr. Lewers—Yes.

Mr. Mills—Wherever found in these letter-press copies?

Mr. Lewers—Yes.

Mr. Mills—Wherever reference is made to them in these letter-press copies?

Mr. Lewers—Yes sir.

Mr. Mills—I offer in evidence letter-press copy of a telegram dated October 19, 1903, from D. A. Chambers to Charles W. Eberlein, found at page 303 of this volume, which I will read into the record as follows:

[1155]

October 19, 1903.

Telegram:

Charles W. Eberlein,

Acting Land Agent Southern Pacific R. R. Co.,

San Francisco, Cal.

Think you should immediately select lands in Township thirty South, Range Twenty-three East and if local officers refuse list, appeal to Commissioner. This ought to be protection against adverse claimants filing or alleging settlement later than our selection. Right of railroad company to indemnity

lands is determined by their status at date of selection.

(Sgd) D. A. CHAMBERS.

Ans. to D.H. 76 Ch 7 G Ny Oct. 18, 1903.

Mr. Mills—I offer in evidence letter-press copy of a letter dated October 24, 1903, addressed to Mr. Charles W. Eberlein, acting land agent of the Southern Pacific Railroad Company, signed by D. A. Chambers, found at page 332 of this volume, which I will read into the record, as follows:

Visalia Application List No. 87, indemnity limits—
Lands in Tp. 32 S., R. 25 E., M. D. M.
Visalia Application List No. 44, primary limits—
Land in Sec. 1, T. 30 S., R. 23 E., M. D. M.

Charles W. Eberlein, Esq. Oct. 24, 1903.
Act. Land Agt. So. Pac. R. R. Co.,
San Francisco, Cal.

Dear Sir:

Referring to my letter of the 12th inst., and your reply of the 17th inst., I would say that I am now in receipt of a **[1156]** letter from the Assistant Commissioner of the General Land Office, dated the 23d inst., in which he says that an investigation of the lands applied for in the above lists will be made by a Special Agent, and, upon receipt of his report, appropriate action will be taken upon the applications of the Southern Pacific R. R. Co.

In reply to your telegram of the 18th inst., in respect to other lands in T. 30 S., R. 23 E., I wired you on the 19th inst., that I thought you should tender an indemnity selection list for such lands, not-

withstanding that township is now suspended from entry on account of allegations that it contains petroleum, and that if the R. & R. refuse to accept the list you should take an appeal to the Commissioner.

Yours truly,

(Sgd) D. A. CHAMBERS.

Mr. Mills—I offer also in evidence and read into the record a letter-press copy of a cipher telegram, dated November 30, 1903, from D. A. Chambers to Charles W. Eberlein, of which the translation is as follows, found at page 430 of this volume:

November 30, 1903.

Telegram:

Charles W. Eberlein,

Acting Land Agent Southern Pacific R. R. Co.,

San Francisco, California.

Oblong dawdler appeal to bitterful from rejection by Register and Receiver, Visalia, of Indemnity List eighty-nine selecting lands in town thirty south, range twenty-three east [1157] idle recreant advising this course.

(SGD) D. A. CHAMBERS.

DH10301

Translation of cipher telegram Nov. 30, 1903, to C. W. Eberlein.

Your letter 24th. I think you should appeal to Commissioner General Land Office from rejection by R. & R., Visalia, of Indemnity List 89, selecting lands in town 30 South, Range 23 East. See my letter October 24th advising this course.

Mr. Mills—My offer also includes the letter-press copy of a letter written by D. A. Chambers to Charles W. Eberlein, dated December 10, 1903, found at page 451 of this volume, which I will read into the record as follows:

Visalia Application List No. 89.
Tracts in T. 30 S., R. 23 E., M. D. M.

December 10, 1903.

Charles W. Eberlein, Esq.,
Actg. Land Agent, So. Pac. R. R. Co.,
San Francisco, California.

Dear Sir:

Referring to previous correspondence in respect to this application list, and to my telegram to you of the 30th ult., I would say that on the same date, I wrote a letter to the Commissioner of the General Land Office, and requested that he have an investigation made by a Special Agent of his office without delay of the lands named in this application list.

I am now advised by his letter of the 10th inst., that he has directed such examination to be made. I presume the Special Agent is Mr. Ryan, but I am not advised positively about this. **[1158]**

If you learn that this agent reports to the Commissioner of the General Land Office, please be sure to advise me.

Yours truly,
(SGD) D. A. CHAMBERS.

Mr. Mills—I also offer in evidence letter-press copy of a letter dated December 16, 1903, addressed to the

Honorable W. F. Herrin, San Francisco, signed by D. A. Chambers, found at page 504 of the volume, which I will read into the record, as follows:

Visalia Main Line Indemnity List 89.
Lands in Tp. 30 S., R. 23 E. M. D. M.

December 16, 1903.

Hon. W. F. Herrin,
San Francisco, Cal.

Dear Sir:

I have your letter of the 9th instant, with copy of an appeal taken on behalf of the Southern Pacific Railroad Company from the rejection by the Register & Receiver of the above list, on the ground that the lands were suspended from disposition by Commissioner's telegram of February 28, 1900.

The Register & Receiver in rejecting said list conformed to the rulings of the Department in like cases.

This blanket suspension of February 28, 1900, on allegations that a large area of land in California contained petroleum, we endeavored to have the late Commissioner Hermann revoke, but the best he would do was to **[1159]** direct his special agents to examine and report on all lands within railroad limits in Southern California. We have never been able to learn that any report was ever made by the Special Agents.

As to the lands on this list 89, on the 30th ult., I requested the Commissioner to have an investigation of them made immediately by a Special Agent, and on the 10th inst. he advised me that a special agent had been instructed to examine and report on them.

On the same day I advised Mr. Eberlein of said action of the Commissioner.

It did not seem advisable to me that the Company at this time should take steps to get a hearing as to these lands, for if the Special Agent reports favorably, the lands would be released from suspension without expense to the Company, and if, as to any of the lands, his report shall be adverse, it will then be time enough for us to apply for a hearing as to such lands, with submission of affidavits in support of our application.

I will look after this appeal when received at the General Land Office from the Visalia local office.

Yours truly,

(SGD) D. A. CHAMBERS.

Mr. Mills—I also offer in evidence a letter-press copy of a letter from D. A. Chambers to Charles W. Eberlein, dated December 16, 1903, found at page 506 of this volume, which I will read into the record, as follows: **[1160]**

Visalia Main Line Indemnity List 89 for lands in 30 S., 23 E., M. D. M.

Appeal from decision of R. & R. rejecting said list.

Decmeber 16, 1903.

Charles W. Eberlein, Esq.,
Actg. Land Agt., Southern Pacific R. R. Co.,
San Francisco, Cal.

Dear Sir:

I have received your letter of the 10th inst., in respect to the above application list, and the appeal

taken therefrom in behalf of the Southern Pacific R. R. Co.

I have also received from Mr. Herrin, with his letter of the 9th inst., copy of the said appeal.

I enclose herewith copy of my letter of this date to Mr. Herrin acknowledging receipt of the appeal.

Probably you have by this time received my letter of the 10th inst., in which I advised you that the Commissioner of the General Land Office had on the same day directed examination of the lands on this list to be made by a Special Agent. And I said I supposed this Special Agent is Mr. Ryan, but was not sure.

It makes no difference whether the appeal from a decision of the R. & R. is signed by you as Acting Land Agent of the Southern Pacific R. R. Co. or by M. Herrin or Mr. Singer as Attorney for the Company. That is a matter to be arranged between yourselves.

As to you having an interview with Mr. Ryan, Special Agent, I would say that if you meet him, I think it would be sufficient if you were to inform him that you have **[1161]** been advised by the Company's attorney in Washington that he has been directed to examine these lands and say that it would be very acceptable to the Company of he could make speedy report.

Of course you will advise me immediately you know Mr. Ryan has made his report.

Yours truly,

(SGD) D. A. CHAMBERS.

Mr. Mills—I also offer in evidence a letter-press copy of a letter dated January 13, 1904, found at page 577 of this volume, addressed to Charles W. Eberlein, as acting land agent of the Southern Pacific Railroad Company, and signed by D. A. Chambers, which I will read into the record, as follows:

Visalia Main Line Indemnity List No. 89.

January 13, 1904.

Charles W. Eberlein, Esq.,

Acting Land Agent Southern Pacific R. R. Co.,

San Francisco, California.

Dear Sir:

I received yesterday your letter of the 6th inst., in which you say that my action in respect to the lands in the above named list 89 has not been in accordance with the suggestion in your lettter of the 10th ultimo.

Let me go back a little before taking up list 89:

I wrote you October 12th, 1903, concerning certain lands in Tps. 32 S., R. 25 E., and 30 S., R. 23 E., embraced **[1162]** in Visalia Application List 44, primary limits, and 87, indemnity limits, which have not been patented because said lands are embraced in orders of suspension issued by the Commissioner of the General Land Office February 21 and 28, 1900; and I said that October 7th I had requested the Commissioner to direct a Special Agent to examine and report on said lands as soon as possible.

On the 24th of October I advised you that the Assistant Commissioner October 23rd had directed a Special Agent to make an investigation of the said lands.

October 30th you acknowledged receipt of my last-mentioned letter, without raising any objection to the action requested by me and taken by the Assistant Commissioner.

Now as to Visalia Main Line Indemnity List 89, covering lands in T. 30 S., R. 23 E., M. D. M. (also suspended by the Commissioner February 21 and 28, 1900), upon the receipt of your letter of November 24th, I took the same course as I had taken as to the lands in Visalia Lists 44 and 87, namely, on the 30th November I asked the Commissioner to direct a Special Agent to examine those lands in List No. 89, and report upon their character without delay.

On the 10th December I advised you of my letter of the 30th November to the Commissioner and of his reply to me of the 10th December, in which he said that he had directed a Special Agent to examine the lands.

Please bear in mind that these two requests for examination of specified lands by a Special Agent, were made and the action of the Commissioner taken, before I received your letter of December 10th, to which you now call attention. **[1163]**

Since the receipt of your said letter of the 10th December I have not made, and shall not make, any request for examination by a special agent of any suspended lands within the grant to the R. R. Co., unless you so request.

I have always followed, and always intend to follow, the action our Land Agents in California sug-

gest that I take here, unless, entertaining a different view of the best policy and having explained it to our Agents in California, they agree with me and change their instructions accordingly.

We are anxious to have the lands in list 89, and also those in Lists 44 and 87 patented to the Company. But inasmuch as patents cannot issue until the Commissioner relieves them from suspension, it seems to us that what has been done here will hasten the adjudication of lands as non-mineral and their patenting to the Company. That was my object.

If I had known your views when writing my letters of October 7th and November 30th to the Commissioner, I could have made said letters conform thereto, and asked action upon all suspended lands, without specifications of any. But the Commissioner's letter of December 10th to Special Agent Ryan, which, confidentially, I have been allowed to read, suggests that he now report whether there is any necessity for the continuance of the suspension of any of the lands in three districts; and this is apparently the kind of official action that you desired. The Commissioner says, substantially: **[1164]**

By letter of October 23, 1903, in the case of Ex-parte Southern Pacific R. R. Co., you were directed to examine the SE/4 Sec. 23, SW/4 Sec. 25, and SW/4 Sec. 27, T. 32 S., R. 25 E., and the SW/4 Sec. 1, T. 30 S., R. 23 E.

The Southern Pacific Railroad Co. has now requested that the following tracts be also examined in order that they may be relieved from suspension, and

made subject to selection by the Company. It is stated that nearly four years have elapsed since the order of suspension, and no mineral entries have been made. These lands are: All of Sec. 15, NE/4 and S/2 Sec. 17, NE/4 and S/2 Sec. 19, all of Sections 21, 23, 25, 27, 29, 33 and 35, T. 30 S., R. 23 E., M. D. M.

You are accordingly directed, when you make examination of the lands first described, to also examine the lands last mentioned and to promptly thereafter report as to whether same should be relieved from suspension.

"This office has no available force from which to assign you assistance at the present time. With this condition of affairs in view, you will make report based upon the examinations heretofore made, your knowledge of the lands remaining to be examined, and familiarity with the country generally, as to whether in your opinion there is any necessity for the continuance of the suspension of the lands in the Visalia, San Francisco and Los Angeles Districts, suspended by this office in 1900 and not reported upon, a list of which you have."

Mr. Herrin wrote me on the 9th ult., and enclosed a copy of the appeal from the decision of the Register & Receiver rejecting Visalia Indemnity List No. 89, and, on the 16th December, I wrote him acknowledging receipt of the appeal **[1165]** and, on the same date I wrote you and enclosed a copy of my letter to Mr. Herrin.

I have endeavored to keep you promptly and fully advised as to everything that has been done here in

respect to this Visalia Indemnity List No. 89, as I have concerning all other matters relating to the Southern Pacific Railroad land grant.

Yours truly,

(SGD) D. A. CHAMBERS.

Mr. Mills—My offer also includes a letter-press copy of a letter dated February 13, 1904, found at page 678 of this volume, addressed to Charles W. Eberlein, acting land agent of the Southern Pacific Railroad Company, and signed by D. A. Chambers, which I will read into the record as follows:

Visalia Indemnity Application List No. 89—
Lands in T. 30 S., R. 23 E.

February 13, 1904.

Charles W. Eberlein, Esq.,
Act. Land Agent, So. Pac. R. R. Co.,
San Francisco, California.

Dear Sir:

Referring to your letter of the 21st ult., I now enclose herewith copy of the Commissioner's letter of the 11th inst., to the Register and Receiver at Visalia relieving from suspension as mineral the lands described therein in Tp. 30 S., R. 23 E., and Tp. 32 S., R 25 E., M. D. M.

Some of these lands were listed in Visalia primary limits List No. 44, and Visalia Indemnity List No. 87, which are the [1166] subjects of two other letters to you of this date, but the bulk of the lands mentioned in the Commissioner's letter, copy of which is enclosed, were attempted to be selected in Visalia Indemnity List No. 89, which, as you know, was re-

jected by the Register and Receiver and an appeal taken to the Commissioner from such rejection.

The Commissioner in his letter of the 11th inst. omitted to name Sec. 29, T. 30 S., R. 23 E., as a section now found to be non-mineral. He will write another letter to the Register and Receiver stating that said Section 29 has been relieved from suspension as mineral.

This Indemnity List No. 89 is in the Railroad Division of The General Land Office, but I have today requested that it be referred to the Mineral Division, and have asked the latter Division to take the same action in respect to List No. 89 as they have taken in respect to Lists Nos. 44 and 87. I am promised that this shall be done, and List No. 89 returned to the Register and Receiver within a day or two with instructions to approve the same.

Yours truly,

(SGD) D. A. CHAMBERS.

Mr. Lewers—That includes the exhibit with it, does it not? Is that the one that transmits a copy of the Commissioner's letter?

Mr. Mills—Yes. It will speak for itself.

Mr. Lewers—That is, the copy is offered also, is it, as well as the letter? [1167]

Mr. Mills.—No. I offer this letter. It refers to the copy. I have not the copy.

Mr. Lewers—The copy follows it immediately.

Mr. Mills—No; I don't offer the copy. I am going to offer a certified copy of this report.

Mr. Lewers—I shall object to the introduction of a

partial letter, or part of a letter, when the letter itself refers to the copy and the copy accompanies the letter. I ask that the copy also be made a part of the record.

Mr. Mills—I also offer in evidence a letter-press copy of a letter dated March 7, 1904, found at page 771 of this volume, addressed to Charles W. Eberlein, as acting land agent of the Southern Pacific Railroad Company, and signed by D. A. Chambers, which I will read into the record, as follows:

Visalia Indemnity Application List No. 89.

March 7, 1904.

Charles W. Eberlein, Esq.,
Actg. Land Agt. So. Pac. R. R. Co.,
San Francisco, California.

Dear Sir:

I have received your letter of the 29th ult., acknowledging receipt of various letters from me in respect to lands on the above list, which was returned by the Commissioner to the Register and Receiver on the 20th ult. for approval.

I presume you have, before this, obtained the approval of this list by the Register and Receiver. Kindly give me the date of the approval of the Register and Receiver and the date when they returned said list to the Commissioner. I will then be able in due course to request the patenting of the lands to the Company. Yours truly,

(SGD) D. A. CHAMBERS. **[1168]**

Mr. Mills—I further offer, from page 774 of this

volume, a letter-press copy of a telegram, dated March 8, 1904, addressed to George A. Stone, land department, Southern Pacific Railroad Company, signed by Charles W. Eberlein. Now, I will ask counsel whether they will admit that that is the signature of Mr. Eberlein.

Mr. Lewers—I believe that is, as near as I know, Mr. Mills. I am familiar with his signature merely from examination of the correspondence; but from that I will state that I am satisfied that that is a copy of his signature, that is, a letter-press copy of his signature.

Mr. Mills—Very well. I will read the telegram last referred to and offered in evidence, as follows:

March 8, 1904.

TELEGRAM:

George A. Stone,

Land Department Southern Pacific R. R.,

Wells Fargo Express Building,

San Francisco, California.

Referring to your letter February 29th to Mr. Chambers regarding Visalia Indemnity List eighty-nine: Do not wait on motion of Register and Receiver at Visalia, but take active steps to have list eighty-nine approved as directed by Commissioner's letter. Notify Mr. Chambers by wire and by letter of date of approval of Register and Receiver and date when they returned the list to the Commissioner. Act promptly.

(SGD) CHARLES W. EBERLEIN.

DH 2083 **[1169]**

Mr. Mills—My offer also includes a letter-press copy of a telegram, addressed to Charles W. Eberlein, as acting land agent of the Southern Pacific Railroad Company, dated March 9, 1904, found at page 775 of this volume, which I will read into the record, as follows:

March 9, 1904.

TELEGRAM:

Charles W. Eberlein,
Actg. Land Agt. Southern Pacific R. R. Co.,
San Francisco, Cal.

Your telegram 9th. Admitting that lands on Visalia Indemnity List eighty-nine are within six miles of mineral claims, time would be saved by immediate publication, as Commissioner would order publication after his office has examined list. Receiver also should approve that list. Why didn't he?

(SGD) D. A. CHAMBERS.

Ans to DH 326 ch jg ry March 8, 1904.

Mr. Mills—My offer also includes the letter-press copy of a letter dated March 15, 1904, found at page 791 of this volume, addressed to Charles W. Eberlein, acting land agent, and signed D. A. Chambers, which I will read into the record, as follows:

Visalia Main Line Indemnity List No. 89—
Approved by the R. & R. Feb. 26, 1904,
for 6109.17 acres.

March 15, 1904.

Charles W. Eberlein, Esq.,
Actg. Land Agt. So. Pac. R. R. Co., [1170]
San Francisco, California.

Dear Sir:

I have received your letter of the 8th inst., with all the enclosures therein referred to, including a copy of the above list. I will give due attention to the patenting of this list, but cannot make any progress with it until the May, 1904, returns from the Visalia Office have been received and posted on the tract books in the General Land Office.

I will pay here the costs of survey of such of these lands as may be clear listed.

You call my attention to the following errors in selections on said list:

The list reads:

North 77.40 acres of W/2 NE/4 Sec. 21, T. 30 S., R. 23 E.

South 2.60 acres of W/2 NE/4 Sec. 21, T. 30 S., R. 23 E.

You say that the foregoing should read:

North 77.40 acres of W/2 NW/2 Sec. 21, T. 30 S., R. 23 E.

South 2.60 acres of W/2 NW/4 Sec. 21, T. 30 S., R. 23 E.

You ask me to have these corrections made on the General Land Office copy of said list No. 89.

As the said list No. 89 is now being advertised, if the Visalia Land Officers follow the course pursued by other land officers in California, they will hold List.

89 until after it has been advertised, when they will transmit it to the Commissioner with any protests that may be filed, if there be any. I suggest, therefore, that you have the foregoing corrections made now upon the list in the local land office and see that the correct description of the tracts in the above section 21 is put into the advertisement; otherwise the W/2 NE/4 Section 21 will now be advertised and, subsequently, we shall have to advertise the W/2 NW/4 said Section 21 before we can get a [1171] patent therefor.

Of course, if List No. 89 comes up to the General Land Office with the incorrect descriptions, above noted, I will ask to be allowed to correct the same; but I will not be permitted to do so until the Commissioner has referred the matter to the Register and Receiver and has been advised by them that the W/2 NW/4, Sec. 21 is clear to the Company.

2. In my letters to you of November 11 and 27, 1903, I called attention to various descriptions of selections in Los Angeles Indemnity List No. 96, main line, which the Land Office here objected to.

I find that the same kinds of descriptions have been numerously used in this Indemnity List No. 89, and I do not know how much trouble we shall have here on account of them. The two lines 31 and 32 on page 1 of List 89, selecting the W/2 NE/4 Section 21, above referred to, are in point. Instead of splitting these 80 acres into two pieces, there should have been one selection of the W/2 NE/4 Sec. 21—80 acres, and op-

posite thereto (bracketed) the two tracts aggregating 80.80 acres that are assigned as loss in lieu of which the selection is made.

As I said in my letters of November last, the Land Office insists that railroad selections shall be made entirely according to legal subdivisions.

I do not think you should attempt now to submit a new list 89 to the Register and Receiver making the selections properly, because we have already had a great deal of trouble with this list and it has now been approved by the Register **[1172]** and Receiver. I will get along with it as best I can when it comes up here.

But it will save considerable in advertising if you get the Register and Receiver to properly describe in the advertisement each selection, for instance: see that thy advertise the W/2 NW/4 Sec. 21, T. 30 S., R. 23 E., and the SE/4 NE/4 Sec. 23, T. 30 S., R. 23 E., etc.

Yours truly,
(SGD) D. A. CHAMBERS.

Cy. CWE., NY.

Mr. Mills—I offer also a letter-press copy of a letter dated April 11, 1904, found on page 981 of this volume, addressed to Charles W. Eberlein, signed by D. A. Chambers.

Mr. Lewers—I again ask that the copies referred to in that letter be made part of the record as part of the letter itself.

Mr. Mills—My offer is limited to the letter itself

without the copies. I will read the letter into the record, as follows:

Lands in the Visalia, San Francisco and Los Angeles Districts relieved from suspension on Account of containing mineral oil by Commissioner's letters of April 5, 1904.

April 11, 1904.

Charles W. Eberlein, Esq.,
Acting Land Agt. So. Pac. R. R. Co.,
San Francisco, Cal. [1173]

Dear Sir:

The Commissioner of the General Land Office, in February, 1900, suspended from entry, selection, etc., a large number of townships in California, because of allegations that they contain mineral oil.

On the 5th inst., he relieved a large number of these townships from suspension on that account. I enclose herewith copies of his letters of the 5th inst., to the Registers and Receivers at Visalia, San Francisco and Los Angeles.

Yours truly,
(SGD) D. A. CHAMBERS.

Mr. Mills—I now offer in evidence a letter-press copy of a letter dated August 5, 1904, found at page 568 of the letter-press volume 62, addressed to Charles W. Eberlein as acting land agent, and signed by D. A. Chambers, which I will read into the record, as follows:

So. Pac. R. R. Visalia Main Line Indemnity List No. 89 for 6109.17 acres.

August 5, 1904.

Charles W. Eberlein, Esq.,
Actg. Land Agt. So. Pac. R. R. Co.,
San Francisco, Cal.

Dear Sir:

I duly received your letter of the 19th ult., requesting that I make certain corrections in assignments of lost lands for lands selected in the above list.

I wrote to the Commissioner of the General Land Office on the 25th ult., requesting permission to make such corrections, [1174] and enclosed to you a copy of my said letter.

This morning I am in receipt of a letter from the Commissioner, dated the 4th inst., in which he acknowledges receipt of my letter of the 25th ult., and says—

"In reply, I have to state that by office letter of even date, said list was sent to the local land office with instructions to return the same to the company in order that a new list may be filed properly describing the lands selected by legal sub-divisions and the errors referred to by you can be corrected."

I immediately went over to the Land Office, hoping that this list had not actually been returned to the Register and Receiver, but found that it had been.

I enclose a copy of the Commissioner's letter of the 4th inst. to the Register and Receiver returning said list.

I told the Land Office that this list had been advertised and report had been duly made by the Register and Receiver that no protest or contest had been filed

during the period of publication, and that, therefore, I thought they should recall the list and let this one list go through as it is in the same condition as a great many Southern Pacific R. R. lists that have been accepted by the office here; but they seem to be a little stiff, and said that my attention had been called several times to mis-descriptions of selected tracts, and that they were not going to accept any more lists where such mistakes occurred; but they said that the lands having been advertised, they would not have to be re-advertised.

All they want is that a new list be presented, selecting tracts by their legal subdivisions, and, at the same time, you can make the corrections in the designations of losses as mentioned in your letter to me of the 19th ult.

You will remember that I wrote you upon the general subject [1175] of making selections by legal subdivisions November 27, 1903, I believe this list 89 had then been written, although it was not approved by the Register and Receiver until February 26, 1904.

Please advise me when the new list has been approved by the Register and Receiver and forwarded by them to the Commissioner of the General Land Office.

Yours truly,

(S) D. A. Chambers.

Mr. Mills—I offer, further, a letter-press copy of a telegram, addressed to Charles W. Eberlein by D. A. Chambers, dated August 18, 1904, found at page 593

of this volume, which I will read into the record, as follows:

August 18, 1914.

Telegram:

Charles W. Eberlein,
Actg. Land Agt. Southern Pacific R. R. Co.,
San Francisco, California.
Yours thirteenth. Give list old number.

D. A. Chambers.

D.H. 11128

Mr. Mills—I offer, further, a letter-press copy of a letter dated August 18, 1904, found at page 594 of this volume, addressed to Charles W. Eberlein, acting land agent, signed by D. A. Chambers, which I will read into the record, as follows: **[1176]**

Visalia Main Line Indemnity List No. 89.

August 18, 1904.

Charles W. Eberlein, Esq.,
Actg. Land Agt. Southern Pacific R. R. Co.,
San Francisco, California.

Dear Sir:

I have your letter of the 13th instant in the above matter.

I have wired you to-day as follows:

"Yours thirteenth. Give list old number."

There is no need to raise in the Visalia Office the question as to whether the lands in said list had been advertised or not.

Have the local officers forward the list to the Gen-

eral Land Office and advise me when it is forwarded and I will look after it here.

Yours truly,

(S) D. A. CHAMBERS.

B.

Mr. Mills—I further offer a letter-press copy of a letter dated September 21, 1904, found at page 702 of this volume, addressed to Charles W. Eberlein and signed D. A. Chambers, which I will read into the record, as follows:

Re-arranged Visalia Indemnity List No. 89.

September 21, 1904.

Charles W. Eberlein, Esq.,
Actg. Land Agt. So. Pac. R. R. Co.,
San Francisco, California. [1177]

Dear Sir:

I have received your letter of the 16th inst., and also copy of the above re-arranged list for 6109.17 acres, which re-arranged list was approved by the Register and Receiver on the 12th inst.

I note that the Register and Receiver transmitted this original re-arranged list to the Commissioner on the 14th inst. I will look it up, and as soon as it has reached the proper Division, will apply for the patenting of the land on said re-arranged list.

Yours truly,

D. A. CHAMBERS.

Mr. Mills—I further offer letter-press copy of a letter dated December 16, 1904, found at page 124 of volume 63, addressed to Charles W. Eberlein as act-

ing land agent, signed by D. A. Chambers, which I will read into the record, as follows:

Ack. Dec. 21/04 Patent to So. Pac. R. R. Co.

December 16, 1904.

Charles W. Eberlein, Esq.,
Actg. Land Agt. So. Pac. R. R. Co.,
San Francisco, Cal.

Dear Sir:

I have mailed to you to-day under separate cover and frank of the General Land Office Patent No. 135, issued to the Southern Pacific R. R. Co., December 12, 1904, for 6109.17 acres, within the indemnity limits of its main line grant, which were selected in Visalia Indemnity List No. 89. **[1178]**

Please acknowledge receipt of this patent.

Yours truly,

(S) D. A. Chambers.

Mr. Mills—I think that completes all that we will offer from these letter-press books. I now offer in evidence a certified copy, exemplified under the seal of the General Land Office, of a telegram, dated February 28, 1900, addressed to the register and receiver, Visalia, California, signed Binger Hermann, Commissioner. Have you any objection to that, gentlemen?

Mr. Lewers—Before taking that up, I would suggest that while we are on the matter of the Chambers letters I put in the balance of the matter contained in these letter-books, which I desire, as cross-examination, to go in.

Mr. Mills— I do not concede your right to offer any papers or letters or proof at this state of the case.

Mr. Lewers—I propose to do it; so I will proceed.

Mr. Mills—It is a question for the examiner to decide.

Mr. Lewers—I offer in connection with the letters that Mr. Hoehling has produced here, originally coming from the possession of Mr. D. A. Chambers, attorney for the Southern Pacific Railroad Company, in order to complete the correspondence appearing in these letter-books on the part of Mr. Chambers, the following letters that were not offered by the Government; and I offer this in the nature of cross-examination for the purpose of making the entire matter complete as far as possible.

Mr. Mills—You had better make a ruling on that, Mr. Examiner. **[1179]**

Mr. Lewers—He has no power to.

Mr. Mills—He has power to make a ruling on the question of whether he will take this or not.

The Special Examiner—I will receive the evidence as in the nature of cross-examination.

Mr. Mills—My only objection is the irrelevancy of the papers, they not being connected with the case; and, further, because of incurring cost as being part of the Government's case; and, further, as being evidence offered entirely outside of the proper order of proof. It might be put in as part of the defendants' case.

Mr. Lewers—I offer first, in connection with the

letter of February 13, 1904, addressed to Charles W. Eberlein, appearing at page 678 of volume 61 of the Chambers letter-press copy-books, the copy of a letter signed by J. H. Fimple.

Mr. Mills—Take the statement, before that is done, that the copy referred to by Mr. Lewers I have here in my hands and am about to introduce it as a certified copy under the seal of the General Land Office.

Mr. Lewers: If you will agree that accompanying the letter written by Mr. Chambers to Mr. Eberlein on February 13, 1904, and appearing at page 678, there was a copy of letter of J. H. Fimple, Assistant Commissioner, addressed to the register and receiver of the Visalia Land office, dated February 11, 1904, I shall be content.

Mr. Mills—Yes. I have those. I am going to introduce those. I have them on my list.

Mr. Lewers—Will you agree that accompanying this letter there was a copy of that? **[1180]**

Mr. Mills—I will agree that if the letter states there was a copy, a copy was probably sent.

Mr. Lewers—The copy is copied in here.

Mr. Mills—Yes; I will agree it was probably sent, if it so states. I don't know the physical fact.

Mr. Lewers—Will you agree that in this book there appears a copy purporting to have accompanied it?

Mr. Mills—Yes.

Mr. Lewers—Then I will withdraw the offer of that letter, under the stipulation. I now offer a let-

ter, dated February 13, 1904, addressed to Charles W. Eberlein and signed D. A. Chambers, a letter-press copy of which appears at page 682 of volume 61 of the Chambers letter-press book, together with the copy of a letter signed by J. H. Fimple, addressed to the register and receiver of the Visalia land office, dated February 11, 1904, beginning at page 683, which I will read into the record, as follows:

Mr. Mills—I will admit that probably was sent.

Mr. Lewers—Well, you will admit that there appears in the Chambers letter-press book, in connection with the letter that I have referred to, a copy of what purports to be the Commissioner's letter of February 11, 1904, in quasi-contest 1998?

Mr. Mills—Yes.

Mr. Lewers—As it appears that the Government does not have a certified copy of this letter, I will read it into the record as follows:

Mr. Mills—We make the further objection to it that it is not certified in any way and merely appears to be a **[1181]** copy of a Commissioner's letter.

Mr. Lewers—I will read the letter last referred to and offered in evidence, into the record, as follows:

Visalia Indemnity List No. 87 for 480 acres,
Quasi Mineral Contest 1998.
February 13, 1904.

Charles W. Eberlein, Esq.,
Actg. Land Agt. So. Pac. R. R. Co.,
San Francisco, Cal.

Dear Sir:

Referring to my letter to you of October 12, 1903,

I now enclose herewith copy of the Commissioner's letter of the 11th inst. to the Register & Receiver, advising them that the lands in the above list have been relieved from suspension as containing petroleum, and, therefore, returning to them the Company's above list for approval.

Please see that the Register & Receiver promptly approve this list and return it to the Commissioner, advising me when they do so.

Yours truly,
(SGD) D. A. CHAMBERS.

Mr. Lewers—I also offer a letter appearing at page 685 of volume 61 of the Chambers letter-press book addressed to Charles W. Eberlein and signed D. A. Chambers, dated February 13, 1904, together with the accompanying copy of letter addressed to the register and receiver, Visalia land office, and signed J. H. Fimple, dated February 11, 1904, appearing at page 686 of the letter-press book, which I will read into the record, as follows: **[1182]**

Visalia Primary Limits List No. 44
Quasi Mineral Contest No. 1997.

February 13, 1904.

Charles W. Eberlein, Esq.,
Acting Land Agt., So. Pac. R. R. Co.,
San Francisco, Cal.

Dear Sir:—

I enclose herewith copy of the Commissioner's letter "N" of the 11th inst., to the Register and Receiver at Visalia, advising them that Tp. 30 S., R. 23

E., M. D. M., having been relieved from the suspension ordered February 28, 1900, the Register & Receiver may now approve the above list for the SW/ 4 Sec. 1, T. 30 S., R. 23 E., 160 acres (being the entire list), and returning said list.

Will you please see that the Register and Receiver promptly approve this list, and return it to the Commissioner, advising me when they do so?

I wrote you about this list October 12th last.

Yours truly,
(SGD) D. A. CHAMBERS.

N WOC
ECF HGP

Department of the Interior.
General Land Office.
Washington, D. C.

February 11, 1904.

Southern Pacific R. R. Co., exparte)
Quasi Contest 1997)
Register and Receiver,
Visalia, California.

Sirs: **[1183]**

October 23, 1900, the Southern Pacific R. R. Co. presented to your office for filing selection List No. 44, granted limits, for the Sw/4 Sec. 1, Tp. 30 S., R. 23 E., M. D. M., which selection was rejected by your office on the grounds that the lands applied for was situated in a township suspended by this office February 28, 1900.

December 7, 1900, the R. R. Co., filed an appeal from your said decision.

The said SW/4 Sec. 1 has by letter of even date been relieved from suspension and while your action in rejecting the list appears to have been correct in view of the then existing suspension there would appear now no objection to the allowances of said selection, which is herewith returned for appropriate action.

Quasi Contest No. 1997 is declared closed.

Very respectfully,

(SGD) J. H. FIMPLE,

Assistant Commissioner.

Mr. Lewers—I offer in evidence, also, a letter appearing at page 769 of volume 61 of the Chambers letter-press book, dated March 7, 1904, and addressed to Charles W. Eberlein, which appears to be unsigned.

Mr. Mills—I make the formal objection that it does not purport to emanate from any responsible source, not being signed, and no foundation laid to show who framed the letter.

Mr. Lewers—The letter last referred to and offered in evidence I read into the record, as follows: **[1184]**

Visalia Primary Limits List No. 44.

March 7, 1904.

Charles W. Eberlein, Esq.,
Acting Land Agt. So. Pac. R. R. Co.,
San Francisco, Cal.

Dear Sir:

I have received your letter of the 29th ult. in reference to the above list.

Will you kindly advise me under what date the Register and Receiver approved said list and returned it to the Commissioner of the General Land Office. I desire this information in order that I may ask to have the land patented to the Company.

Yours truly,

Mr. Lewers—I also offer in evidence a letter appearing at page 770 of volume 61 of the Chambers letter-press book, dated March 7, 1904, addressed to Charles W. Eberlein and signed D. A. Chambers, and will read the same into the record as follows:

Visalia Indemnity List No. 87.

March 7, 1904.

Charles W. Eberlein, Esq.,
Actg. Land Agt. So. Pac. R. R. Co.,
San Francisco, Cal.

Dear Sir:

I have received your letter of the 29th ult. in reference to the above list.

Will you kindly advise me under what date the Register and **[1185]** Receiver approved said list and returned it to the Commissioner of the General Land Office? I desire this information in order that I may ask to have the land patented to the Company.

Yours truly,

(Sgd) D. A. CHAMBERS.

Mr. Lewers—In connection with the letter appearing at page 981 of volume 61 of the Chambers letter-press book, dated April 11, 1904, addressed to Charles W. Eberlein and signed by D. A. Chambers, which

letter was introduced in evidence by the complainant, I now offer the copy appearing at page 982, of the letter, dated April 5, 1904, and signed by J. T. Macey as acting Land Commissioner, which letter is referred to in the letter appearing at page 981 offered by the complainant.

Mr. Mills—I have a certified copy of that letter and am going to offer it.

Mr. Lewers—Then, if you will agree that the certified copy of the original of this will be introduced in evidence, I will not read it into the record.

Mr. Mills—Certainly I am going to offer it.

Mr. Lewers—Is that the letter numbered 56802, 1904-N?

Mr. Mills—Yes; it is.

Mr. Lewers—I also offer, in connection with the letters introduced by the Government, a letter appearing at page 113 of volume 61 of the Chambers letter-press books, dated August 19, 1903, addressed to Jerome Madden, and signed by D. A. Chambers, together with the accompanying letter referred to in this letter, dated August 18, 1903, being file number 136739-1903-N, addressed to the register and receiver at Los **[1186]** Angeles, California, and signed by W. A. Richards, Commissioner, with reference to which and in connection with this offer I ask now that the Complainant produce either the original office copy of that letter retained in the General Land Office or a certified copy of the same.

Mr. Mills—Does this refer to any of the lands in the suit?

Mr. Lewers—The purpose of this offer is in connection with the other letters concerning examinations made of land by Government officials.

Mr. Mills—Well, does it refer to any of the land in this suit at all?

Mr. Lewers—I don't believe it does, specifically; in fact, I am sure it does not.

Mr. Mills—We object to the introduction of this fugitive copy of a supposed letter, because it relates to lands not involved in the suit at all, but to lands which are by actual measurement 80 miles south of the lands in controversy and about 50 miles to the west, and has no bearing whatever, in the opinion of counsel for the Government, upon this case. It is further objected to on the ground that it is apparently a letter-press copy of a copy of a copy of some letter purporting to have been sent to the Los Angeles land district from the General Land Office.

Mr. Lewers—The letters just referred to and offered in evidence I will read into the record, as follows: **[1187]**

Land in Tps. 1 S., R. 18, 19 and 20 W.,
S.B.M.
Los Angeles Application Indemnity
List No.
101. Branch Line.
August 19, 1903.

Jerome Madden, Esq.,
Southern Pacific R. R. Co.,
San Francisco, California.

Dear Sir:

Referring to your letter of the 5th inst., and my letters of the 10th and 13th inst., I now enclose herewith copy of the Commissioner's letter of the 18th inst., to the R. & R. at Los Angeles, revoking order of suspension of August 11, 1900, for Tps. 1 S., Ranges 16, 17, 18, 19 and 20 W., S.B.M.

This letter follows soon after the Commissioner's letter to me of the 12th inst., in which he indicated that investigation of these lands was still in progress.

You can now resubmit your Application List No. 101, if you deem proper.

Yours truly,
(Sgd) D. A. Chambers.

136739-1903-N SMV H.G.P.
EC.F

Department of the Interior,
General Land Office,
Washington, D. C.
Aug. 18, 1903.

Register and Receiver,
Los Angeles, Calif.

Sirs:

By office letter of August 11, 1900, the land in townships **[1188]** 1 S., of ranges 16, 17, 18, 19 and 20 W., S.B.M., were suspended from disposition under the agricultural land laws upon allegation that same was valuable for its deposits of mineral (oil). February 13, 1902, you transmitted to this office in connection

with the record in case of the application of Jose Serrano to enter under the homestead laws a portion of Sec. 9. T. 1S., R. 20 W., a statement by Mr. H. W. Duncan to the effect that the suspension of said lands has resulted in hardships to settlers and to those desiring to settle upon the public domain and has served no good purposes and that notwithstanding the fact that considerable prospecting has been done no oil whatever has been discovered. Said record is also accompanied by a petition signed by Tom F. Swinney and four other persons who state that they are settlers in T, 1S., R. 20W. and requesting that the order of suspension be revoked for the reason that the lands withdrawn are non-mineral in character and have no value except for farming and grazing purposes.

Mr. A. W. Marsh of Los Angeles, has filed in this office a number of statements to the effect that the lands in question are of no value except for their deposits of mineral and that if the order or suspension is allowed to remain the mineral prospectors will be enabled to enlist capital to assist in the development of the deposits of mineral therein contained, but if the order of suspension is revoked it will be impossible to obtain money to complete the work. The statement is accompanied by several affidavits from persons who state that they are familiar with the lands in question and that in their opinion the whole district is essentially mineral except a few tillable spots now occupied by homesteaders. **[1189]**

Acting under instructions received from this office, a special agent visited the land in question dur-

ing the month of July, examined same and interrogated a number of persons resident in the vicinity obtaining their affidavits as to the character of the land and other facts pertinent to the investigation.

The Special Agent now reports that careful inquiry of persons resident in the vicinity failed to elicit anything which would show that the lands have any value for oil or minerals of any kind. One well was bored in T. 1S R. 20 W., some time ago but instead of oil water was found and the well was abandoned. He also found in Sec. 27, T 1S., R. 17 W., upon the homestead claim of John Henry an incline of about 100 feet and a shaft fifteen feet in depth in none of which was any discovery of oil or mineral made. He further reports that he did not find, in any portion of the townships hereinbefore described any oil seepage, oil springs, surface or other indications of oil or mineral which would warrant the lands being classed as mineral in character. The only indication of oil he discovered was a slight coating in some small wells or seams of hard rock on the homestead claim of John Henry. But the prospecting in which Mr. Henry is engaged has to to this time failed to result in the discovery or development of oil or minerals of any kind. The said report is accompanied by the affidavits of a number of persons resident near the lands who state that in their opinion no discovery of mineral sufficient to warrant the continuance of the order of suspension have been made upon the lands in question; that while the land is rough and broken there are numerous fertile and

tillable valleys while [1190] the mountain sides will afford grazing for cattle thus making the land more valuable for agricultural and grazing purposes than for mineral.

The Special Agent also forwards an affidavit made by Mr. A. W. Marsh which states in a general way that he has examined the lands in question and found oil seepages deposits of shale, etc. which indicate that the township is underlaid by deposits of oil.

Upon careful consideraton of the whole matter, the conclusion is reached that the public interest will be best subserved by a removal of the order of suspension from said land. The said order of suspension, made August 11, 1900, was intended to be temporary only, giving the prospectors time to explore and develop the district and it would appear that ample time has elapsed within which to have demonstrated the existance of mineral therein, if any does exist. It would appear, however, from the statement of the special agent, that all attempts to bore for oil have resulted in failures and that no indication of the existence of valuable deposits of mineral have been found therein. The said order of suspension of Aug. 11, 1900, is accordingly hereby revoked. Make the proper notations upon your records.

Very respectfully,

(Sgd) W. A. Richards,
Commissioner.

Mr. Lewers—I also offer a letter appearing at page 226 of volume 61 of the Chambers letter-press book, dated September 22, 1903, addressed to Charles W.

Eberlein and [1191] signed by D. A. Chambers; and, together with this, I offer and read into the record—

Mr. Mills—I want to object to your reading anything into the record until the matter is submitted to me to see if I have any objecton.

Mr. Lewers—Your objection may be considered as being made before the reading.

Mr. Mills—I don't know that I want to make any objection.

Mr. Lewers—Together with this I offer and read into the record a copy of a letter—

Mr. Mills—I object to counsel reading anything into the record until it is submitted to counsel for the Government for the purpose of enabling him to make any objections which we may want to make.

Mr. Lewers—copy of letter dated September 22, 1903, being file Number 148773-43, addressed to the register and receiver, Visalia, California, and signed by W. A. Richards, Commissioner, and now handed to counsel for the Government; and in connection with that offer I ask for the production of the original copy of that letter retained by the Commssioner of the General Land Office, or a certified copy thereof.

Mr. Mills—The Government objects to the introduction of this alleged letter-press copy of a copy of a copy of a letter relating to lands in a township 12 miles distant from the lands in controversy, as having no bearing whatever upon the issues in this case; and, further, moves that all of the letters heretofore introduced at this hearing by counsel for the defen-

dants be stricken from the record, as being introduced out of order and without any foundation whatever for disturbing the **[1192]** order of proof.

Mr. Lewers—In reply to the last suggestion, I desire the record to show that, in the normal course of events, on cross-examination we would be authorized to introduce all correspondence referring to the matters introduced on the direct examination, and that the fact that counsel for the Government has very courteously extended to Mr. Hoehling, an attorney in this case, the privilege of having his statement accepted, cannot have the effect of denying the defendants in this case the ordinary rights and incidents of a cross-examinaton. The letters last referred to and offered in evidence I will read into the record, as follows:

Visalia Indemnity List No. 48;
Bruns and Clarke v. S. P. R. R. Co.

Sept. 22, 1903.

Charles W. Eberlein, Esq.,
Actg. Land Agt. So. Pac. R. R. Co.,
San Francisco, California.

Dear Sir:

The Southern Pacific Railroad Co. selected in above list all of fractional section 1 and the NE/4 of Sec. 11 T. 30 S., R. 21 E., M. D. M.

In Patent No. 31, dated January 25, 1896, the above lands were included.

By township plat, approved April 27, 1869, and resurveyed and plat approved November 18, 1893,

Section one was given Lot No. 37—641.40 acres, and the NE.4 Sec. 11 given lot No. 41, 160 acres. By this plat Lots 1 and 2 of SE/4 SE2 SE/4, Lots 3 and 4 of SW/4 and S/2 SW.4, 206.47 acres were found to be in Section 1, and the larger portion of **[1193]** Sec. 11 was thrown in to Sec. 2.

Carl A. Bruns applied to select the tracts in Sec. 1 outside of Lot 41 under the Forest Lieu Act.

The Secretary of the interior, in his decision of March 26, 1902, (31 L.D., 272) rejected Brun's application, and held that the Company's patent (No. 31) embraced the lands Bruns applied to select, and that the Company would be entitled to a patent for Lot 41 if there was no objection thereto.

By the plat approved in 1893, there was added to the NE1/4 Sec. 11, Lots 1, 4 and 9, containing 47.66 acres. One C. W. Clarke applied to select said lots in Sec. 11 under the Forest Lieu Act. The Secretary, however, January 23, 1903, affirmed the rejection of Clark's application and held that said lots were patented to the Company in said Patent No. 31.

By plat, approved April 13, 1903, the portion of lots 41 in Section 11 is shown to be 52.70 acres, and is designated as lot 10.

When I applied for the patenting of lots 37 and 10, it developed that they were within a suspension on an allegation that the land contained oil. I applied to the Commissioner to revoke the suspension as to these lots.

Whereupon, he instructed Special Agent Ryan to investigate and report as to whether the same con-

tained oil or other mineral. This Special Agent on August 25, 1903, reported that the tracts were not valuable for oil or other mineral.

I now enclose a copy of the Commissioner's letter to **[1194]** the Register & Receiver of this date, relieving said lots 37 in Sec. 1 and 10 in Sec. 11 from suspension. I have today requested the Commissioner to issue a special patent to the Company for said lots.

Referring to your letter of the 10th inst., acknowledging Patents 84 and 122, saying that all efforts looking toward the prompt issue of patents will be greatly appreciated, I beg to say that I am doing all I can to expedite the issue of patents to the Company.

Yours truly,

(Sgd) D. A. CHAMBERS.

"P" Department of the Interior,
148773-43 General Land Office,
J.D.Y. Washington, D. C., September 22, 1903.

Southern Pacific R. R. Co.)
Indemnity List No. 48)
Register and Receiver,
Visalia, California.

Sirs:

My telegram "P" of February 26, 1900, Lot 37, Sec. 1 and Lot 41, Sec. 11 T. 30 S., R. 21 E., M. D. M. with other lands, were suspended from disposition on allegations that same contain deposits of oil. Said Lots are within the indemnity limits of the S. P. R. R. Co.'s grant, and they are not embraced in mineral claims of record in this office.

By letter "P" of April 14, 1903, Special Agent E. C. Ryan, Los Angeles, California, was directed to investigate the character and condition of lands included in said lots and thereafter promptly submit a report. **[1195]**

I have now received Special Agent Ryan's report of August 25, 1903, inclosing a copy of an affidavit executed August 20, 1903, by William A. Maddox, in which Maddox alleges that he has resided in the vicinity of the land in question for the past eight years and is well acquainted with the land embraced in Lot 37, Sec. 1, and Lot 41 Sec. 11, T. 30 S., R. 21 E., M. D. M., having frequently been over the same; that no discovery of oil or mineral of any kind has ever been made on any portion of said land to his knowledge; that some time ago two wells were bored for oil on said lot 41, but no oil was developed and the wells were abandoned; that no development work for the production of oil or other mineral is now being presocuted on any portion of said land, and in his opinion it is chiefly valuable for grazing purposes.

The Special Agent states that he visited the above described land August 19 and 20, 1903, and found them to be hilly and apparently valueless except for grazing purposes and further corroborates the affidavit of Maddox that there had been no discovery of oil or other mineral on said lots.

The original plats of survey shows that Lot 41 covered land in Secs. 2 and 11, but by diagram made by the Surveyor General April 13, 1903, said lot was

subdivided, and that portion thereof in Sec. 11 is now designated as Lot 10 containing 52-70 acres.

Lot 37, Sec. 1, and Lot 10, Sec. 11, T. 30 S., R. 21 E., M. D. M. are hereby relieved from suspension and you will so note on your records.

Very respectfully,

(Sgd) W. A. Richards, Commissioner. **[1196]**

Mr. Lewers—And, following the same right of cross-examination, and inasmuch as all the papers and matters in Mr. Hoehling's possession bearing upon this matter—the matter of the lands in controversy in this case—have been demanded, I now offer in evidence the docket entry appearing at page 253 of volume 2 of records from Chambers' office, so far as the same refers to record No. 89 only. And, in this connection, I will ask you, Mr. Hoehling, whether or not this book to which I have been referring was one of the records which was received by you from Mr. Chambers' office.

Mr. Hoehling: It was one of the record books so received.

Mr. Mills—I have no objection to it.

Mr. Lewers—Merely for the purpose of completing the history of the matter. I will therefore read into the record the portion of the docket referred to and offered, as follows:

"Southern Pacific Railroad. Visalia indemnity list No. 89."

On the margin, at the left, marked "Closed. Approved by R. and R., Feby. 26, 1904. Apr. 30, 1904, Ad. of this list just begun—See C. W. E.'s letter of

Apr. 30, 1904. Pat. asked Sept. 23—04. Surveys not paid in Cala.—survey costs paid $405.06.

6109.17 acres (in Tp. 30 A. R. 23 E, M.D.M.)

"This list rearranged by order of Com'r to R. & R., dated Aug. 4, 1904. Rearranged list (for exactly same land) approved by R. and R. Sept. 12, 1904. 6,109.17 acres in pat. 135 of Dec. 12, 1904. Sur. cost $405.06. V. 19 p. 596."

Mr. Lewers—Now, there are certain letters written by Mr. Chambers to the Commissioner which you have called for and which I understand you have copies of ready to introduce.

Mr. Mills—From Mr. Chambers?

Mr. Lewers—Yes.

Mr. Mills—Yes. That is, I have all I could find. **[1197]**

Mr. Lewers—I believe you found all that appear in this book?

Mr. Mills—I think so. I don't know of any other relating to this case. I now renew my offer to introduce a certified copy exemplified from the records of the Genearl Land Office and under the seal of that office, of a telegram dated February 28, 1900, addressed to the register and receiver at Visalia, California, signed Binger Hermann, Commissioner. I ask that the certified copy offered be marked plaintiff's exhibit "QQQ", and I now read it into the record as follows:

PLAINTIFF'S EXHIBIT Q Q Q — L L.

4-207 r

B. DEPARTMENT OF THE INTERIOR
GENERAL LAND OFFICE
WASHINGTON

March 5, 1912.

I hereby certify that the annexed copy of telegram, dated February 28, 1900, is a true and literal exemplification from the records in this office.

IN TESTIMONY WHEREOF I have hereunto subscribed my name and caused the seal of this office to be affixed, at the city of Washington, on the day and year above written.

H. W. SANFORD
Recorder of the General Land Office.

(SEAL OF THE GENERAL LAND OFFICE). [1198]

Copy.

"P" 1900-28151

W.E.V. DEPARTMENT OF THE INTERIOR
General Land Office,
Washington, D. C., February 28, 1900.

Address only the
Commissioner of the General Land Office.

TELEGRAM.

Register and Receiver,
Visalia, California.

Suspend from disposition until further orders townships thirteen ranges ten and eleven, fourteen ranges eleven and twelve, fifteen ranges eleven and

twelve, sixteen ranges twelve, thirteen and fourteen, seventeen ranges thirteen and fourteen, eighteen ranges thirteen, fourteen and fifteen, nineteen ranges fourteen, fifteen and sixteen, twenty ranges fourteen and fifteen, twenty-one ranges fifteen and sixteen, twenty-two ranges fifteen, sixteen, seventeen and eighteen, twenty-three ranges sixteen, sventeen and eighteen, twenty-four ranges seventeen, eighteen and nineteen, twenty-five and twenty-six range nineteen, twenty-eight and twenty-nine range twenty, thirty range twenty-three, twenty-five and twenty-six ranges twenty-six, twenty-seven and twenty-eight, twenty-seven ranges twenty-seven, twenty-eight and twenty-nine South and East.

BINGER HERMANN,
Commissioner.

O.G.

Mr. Mills—I now offer in evidence a certified copy of a report or letter, dated July 13, 1900, Bakersfield, Cali- **[1199]** fornia, to the Commissioner of the General Land Office, signed by J. Cummings, special agent, G. L. O., and ask that the same be marked plaintiff's exhibit "RRR", which I will read into the record, but offer it to Counsel for defendants for examination before reading.

Mr. Lewers—We object to the introduction of the document offered, not on the ground that it is a copy rather than the original, but on the ground that it is purely a hearsay statement, made on an ex parte investigation, which from the face of it appears to have been directed to lands not involved in this contro-

versy and very remote therefrom; on the further ground that no opportunity has been given to the defendants in this case to cross-examine the person making the report, that it does not concern the examination or any examination made of the land in the suit for the purpose of determining whether a patent should issue for the same, but concerns an examination made long prior thereto when no patent application was pending and when in no way could the defendants in this case, and particularly the Southern Pacific Railroad Company, be bound or concerned by anything that was done by the person making this report. We add the further general objection that the matters therein contained are irrelevant to any issue involved in this suit.

Mr. Mills—In answer to that objection, that you are not able to cross-examine the party making the report, I will state that from hearsay I understand Mr. Cummings has been dead some years.

Mr. Hoehling—I will also state that I am informed that Mr. Cummings is dead. **[1200]**

Mr. Lewers—But this is not an ancient document, within the meaning of the law.

Mr. Mills—With that statement I will ask that the Commissioner mark this Government's Exhibit "RRR", and I will read the same into the record, as follows:

PLAINTIFF'S EXHIBIT R R R.

B. 4-207 r.

M E L DEPARTMENT OF THE INTERIOR
GENERAL LAND OFFICE
WASHINGTON

July 17, 1912.

I hereby certify that the annexed copy is a true and literal exemplification of the original paper on file in this office.

IN TESTIMONY WHEREOF I have hereunto subscribed my name and caused the seal of this office to be affixed, at the city of Washington, on the day and year above written.

H. W. SANFORD,
Recorder of the General Land Office.

(SEAL OF THE GENERAL
LAND OFFICE) [1201]

Special Service
Division

P. DEPARTMENT OF THE INTERIOR
General Land Office.

Address only the
Commissioner of the General Land Office.

Bakersfield, Cal., July 13th, 1900.

Exhibit No. 1 mentioned in this letter is map 89—California filed in Div. L.

Hon Commissioner.
General Land Office.
Washington, D. C.
Sir:

In compliance with your instructions, see letter "P.", W. E. V., Dec. 19, 1899, directing me to investigate and report upon the mineral or non-mineral character of certain lands located in "Townships 15, 16 and 17 S. Ranges 10, 11, 12 and 13 E., M. D. M., Township 27 S. Ranges 27, 28, 29 and 30 E., M. D. M., Township # O. S., Ranges 21 and 22 E., M. D. M., Township 31 S., Range 22 E., M. D. M., and Township 11 N., Range 23 W., S. B. M., California, which are alleged to be oil lands (mineral)."

I have the honor to report as follows:—Immediately after entering upon this investigation, I was confronted with indisputable facts that warrants me in stating that the lands in question, and very much of the contiguous country, *are valuable only for their mineral worth;* there are no agricultural lands in any part of the suspended district; the mineral possibilities are something wonderful, and I make the prediction that this will soon be the largest oil field in the United States, if not in the world. I have visited all of the territory that stands suspended, and I find no people engaged in **[1202]** farming, cattle raising, or sheep herding, in all this vast area of land: for the simple reason that it produces nothing that will sustain man or beast; it is essentially mineral land, and from the present outlook, will soon be a great source of wealth to the State, quite likely the revenue that

will be obtained from these well known oil fields will exceed all other mineral products of the state, within a very few years. One is filled with amazement to witness the amount of development work that has been accomplished already, and the oil industry here in southern California is but a year old. These vast oil fields represent millions upon millions of dollars, and settle the fuel question of the Pacific Coast for generations to come.

I mail you a most excellent map of the country where these lands are located; the red lines are the exterior bounds of the lands that are held in suspension, and I cannot recommend too strongly, the propriety of reclassifying the same. Doubtless, here and there, parts of a Township might be set back again in the agricultural list, but if not done, the agriculturist will not suffer; there are positively no lands in all this large list that would bring five cents an acre, for farming or grazing purposes. But for mineral purposes, these same worthless lands have risen in one short year to a valuation of $1,500 per acre in many instances, and it is a rare thing to hear any of the known oil lands offered at less than $1,000 per acre.

I will mark the above map Exhibit No. 1, as it will necessarily plat an important part in connection with the many reports that will be forwarded to the department.

I also forwarded Exhibit No. 2; this is an Album of photo- **[1203]** graphic views that were taken under my personal direction and represent different por-

tions of the oil fields under consideration; they tell their own story in plainer and more eloquent terms than I can. I searched in vain for an opportunity to photograph the improvements of some of the many homestead entries that have been recently filed on these valuable mineral lands.

The fact is, every Homestead entry, or lieu selection made under the act of June 4, 1897 (30 Stat., 36), during the past year, on any of the lands now under consideration, have been fraudulently made; they were taken for their mineral worth.

There are no agricultural improvements on any one of these fraudulent entries, but we find Derricks and Oil Wells, everywhere; oil tanks in countless numbers filled to overflowing, and in many instances oil being pumped into holes dug in the ground, for the want of transportation facilities; scores of eight, ten and twelve mule teams constantly on the go to the different depots with their precious loads of oil, the same to be shipped to all parts of the country, dozens and dozens of individuals constantly arriving from various portions of the world for the purpose of engaging in the oil industry in some form or another; scores of miners, mechanics and laborers constantly arriving, and are immediately set to work at magnificent wages; train loads of mining machinery arriving at each of the Railroad depots, daily; lands that one year ago would not command $1.00 per acre, readily selling at this time as high as $1,500 per acre, and even higher; these are among some of the reasons that induce me to declare to the Hon Commissioner

that the lands under consideration are MINERAL, pure and simple. **[1204]** I will make report on 4-480 in all cases that come within the proper scope of such form. Said reports will prove conclusively that the lands under consideration are mineral.

As to the character of minerals that prevail in the tracts covered by your suspension, I will state that the following constitute the prevailing minerals to be found in paying quantities within the borders of the said lands, viz:—crude petroleum oil, asphalt, sulpher, fullers-earth, and gypsum: The first and last in fabulous quantities, asphalt in great abundance, and fullers earth in sufficient quantity to build strong hopes for its becoming a paying industry in the near future.

I have spent much time in collecting facts and figures regarding the cost of development work, already accomplished in the oil fields in this locality. It has been necessary for me to consult with, or correspond with over two hundred and fifty different Corporations, that are actively engaged in some form or another, in the development of crude petroleum oil in various portions of the suspended lands under investigation. I have received replies from about one half of the number, and promises from many who were not yet ready to report.

The earnestness and good faith of those actively engaged in developing and producing oil in the Kern River Oil District will not be questioned; it is safe to say that $1,500,000 has been spent in development work by these fearless and honest miners. This vast

expenditure has been spent in producing crude petroleum oil, principally in Townships 27, 28 and 29 S., Ranges 27, 28 and 29 E., M. D. M. This territory is now producing large quantities of oil, and shipping to the full extent that the operators can secure transportation facilities; **[1205]** every barrel has to be hauled from six to seven miles, by wagon; this is a tedious and slow means of transportation; the S. P. Co. are now building a branch line into the oil field, which will be completed within 20 days, and it is claimed that the oil output in this field will soon reach 5000 barrels per day, with a prospect of 10,000 per day within a year's time. Oil is quoted at $1.00 per barrel f. o. b. at this point; one day's income, viz: $5,000, is more than the entire belt of suspended lands in the Kern River Oil District would command, under the most promising circumstances that it would be possible to invent, as an agricultural proposition.

I desire to call the attention of the Hon. Commissioner to the following fact: The City of Bakersfield is one of the oldest settled localities that there is in southern California. For many years, the County of Kern, in which these suspended lands are located, has been known as a cattle and sheep country; now mark this fact, notwithstanding that the principal revenue of the County was obtained from cattle and sheep husbandry, these lands that are now in dispute lay but from four to six and seven miles from said Bakersfield; had they been of any worth as an agricultural proposition, it stands to reason that every acre of the same would most naturally have been

homesteaded long ago; but, within one short year, every acre of this heretofore worthless land has become of agricultural worth, and especially to those who are engaged in the furnishing of Forest Reserve Scrip for speculative purposes. And not an acre of this land has been taken except for the oil it has been demonstrated that it contains, and that in fabulous richness. **[1206]**

I desire to call the attention of the Hon Commissioner to a class of mineral filings that are working almost as great an injury to this and other oil fields, as are the so called scrippers; numerous cases exist where combinations have been formed for the purpose of controlling vast areas of the public domain, ostensibly, under the United States laws that govern mineral filings on the public domain. In so far as I have been able to learn the facts of the case, without making an abstract of the lands that are thus held down by the combinations referred to above, said parties have placed mineral filings upon more than 250,000 acres of the public domain, in the counties of Kern and Fresno, alone. In order that the parties engaged in scripping the lands that are now known to be unmistakeably mineral might have an argument in their favor, they caused to be made a complete and accurate list of said filings. They are attested, under oath, and I assume that they are practically correct. This sworn statement shows that in Kern County alone, within a year 103 persons have located 8,248 placer petroleum mining claims of twenty acres each, an average of over eighty claims

of 1.600 acres to the person, or a total of 164,960 acres.

The statement from Fresno County makes a similar showing, covering the time between January 1, 1899, and March 1, 1900, 97 persons have located 5.983 placer petroleum claims of twenty acres each, an average of over sixty claims; 1.200 acres to the person, or a total of 119,660 acres.

The parties making these numerous filings, have made no sort of improvement or development; they would seem to be purely speculative in character, and many of them are patrolled, and otherwise held by force. **[1207]**

I have accumulated a mass of documentary evidence that goes to prove as conclusively as it is possible to do under existing circumstances, that quite all of the territory that you have suspended in connection with the oil lands of the San Joaquin Valley, California, are mineral (oil). I am waiting on Mr. E. E. Bush of Hanford, Cal. and J. B. Treadwell, of San Francisco, for valuable reports that they are preparing, as experts, for the use of the Hon. Commissioner in connection with the matter in hand; I am promised said reports in a very few days, and will immediately forward the same with other documents to the Department. The affidavits that I have secured are connected with cases that will be immediately erported on form 4-480, and the same affidavits will be used in a large number of cases. I herewith present the names of upwards of forty good and true representative men of California, who have

given me permission to use their names in any court, at any time, as witnesses to prove that the lands under suspension are mineral:—E. E. Bush, Hanford, Cal. C. H. Congdon, Bakersfield, Cal. W. E. De Groot, Los Angeles, Cal.; C. A. Canfield, Los Angeles, Cal.; Milton McWhorter, Bakersfield, Cal.; W. H. Shafer, Selma, Cal.; Timothy Spellacy, Bakersfield; J. J. Mack, Bakersfield; also of the same place, Jno. P. Kerr, W. M. Spencer, H. P. Bender, J. M. Keith, Walter James, J. M. Jameson, H. W. McCray, T. L. Reed, and Alvin Fay; also J. A. Stroude, Oakland, T. P. Spiers, San Jose, W. E. Knowles, Oakland, C. A. Fuller, Oakland, Maurice V. Samuels, San Francisco, W. T. Sesnon, Geo. L. Hoxie, Fresno, Hanford, W. S. Badger, Fresno, W. F. Chandler, Selma, J. B. Treadwell, San Francisco, W. F. Sesnon, San Francisco, H. H. Blood, San Francisco, F. L. Doheney, W. P. Book, and Jos. A. [1208] Chanselor, of Los Angeles; A. B. Butler, Fresno, I. W. Ross, San Francisco, G. V. Sessions, Sacramento, and Chas. S. Young, of San Francisco, all of California. Each and every one of these gentlemen are calculated to make first class witnesses; they understand the gravity of the question under investigation; I have talked with every one of the number, and as before stated, they are quite willing to respond whenever called upon. I have selected them because they will know what they are talking about when put upon the witness stand, or in any other manner that it is possible the Government wishes to call upon them. I want to say right

here that I might have extended this list to 100 if necessary. The list that I present represents expert miners, bankers, merchants, professional gentlemen, and hardy miners.

I have written and revised several reports to forward the Hon Commissioner in the matter now under consideration; so manifold have been the changes that have occurred of grave import, since entering upon this investigation, that one after the other have been case aside in consequence of their inferiority; this, I forward as a preliminary; the interests that are involved requires long and faithful study; I am doing the best that I know how; I will send in a special report recommending the immediate suspension of *all* filings that have been made under the Act of June 9 1897; also, all homestead entries that have been made, since March 1, 1899. I of course refer to such as has been made within the bounds of the suspended lands; there is not one of them that will stand fire; after a report has been perfected on form 4-480.

I wish it were possible for me to properly impress upon **[1209]** the Hon Commissioner the vast importance of the matter under consideration; it cannot be overestimated; should the lands under investigation be restored at this time, scrippers and would be homesteaders would soon cover all the territory involved in the suspension. It is idle to talk of these lands from an agricultural standpoint; a sheep could not exist on 1000 acres of it, and it would be quite impossible for a homesteader to make a living on 50,-

000 acres, provided he depended on the surface of the soil from which to make it.

I will forward the remaining papers relating to this matter at the very earliest day; I am quite sure, within five days.

Very respectfully,
JAY CUMMINGS.
Special Agent, G. L. O.

(Endorsement on Back)

1901—29536.19

Encl 3
U. S. General Land Office 20
Received Jul 21 1900 B

96787 124

Jay Cummings.
Bakersfield, Cal.
July 14th, 1900.

Makes preliminary report in the matter of letter "P.", W. E. V., December 19, 1899, directing that certain lands located in the Los Angeles, and Visalia Land District, California, be examined and reported upon as to the allegation that they were oil lands (mineral). **[1210]**
Ackd July 21, 1900
May 23, 1902 Refd to N
H. H. J.

Asst. Chief R

N Valk.

The exhibit last referred to and offered in evidence is marked Plaintiff's Exhibit "RRR".

Mr. Mills—The Exhibit just offered and read into the record refers to a map, numbered 89, known as Exhibit 1. The original of the map I have here, and will offer this original in evidence, with the stipulation that we may withdraw the same, if you gentlemen will stipulate it, and substitute a certified copy. On the certified copy of this map, the lines which appear as red on the original of the map appear as white.

Mr. lewers—I have no objection to that arrangement, provided that in case it is desired at any time in the future, we can have the original for use in court upon demand.

Mr. Mills—Yes.

The map last referred to and offered in evidence is marked Plaintiff's Exhibit "SSS."

Mr. Mills—I offer in evidence a certified copy, exemplified under the seal of the General Land Office, of a letter by D. A. Chambers, attorney for the Southern Pacific Railroad, addressed to the Commissioner of the General Land Office, dated October 7, 1903, which I will read into the record, as follows: **[1211]**

PLAINTIFF'S EXHIBIT T T T

4-207 r

B. DEPARTMENT OF THE INTERIOR
M E L GENERAL LAND OFFICE
WASHINGTON

June 8, 1912.

I hereby certify that the annexed copy is a true and literal exemplification of the original letter on file in this office.

IN TESTIMONY WHEREOF I have hereunto subscribed my name and caused the seal of this office to be affixed, at the city of Washington, on the day and year above written.

H. W. SANFORD
Recorder of the General Land Office.

(SEAL OF THE GENERAL LAND OFFICE).

D. A. Chambers
Attorney
McGill Building, 908 G Street, N.W.
Washington, D. C.

Division P.

Visalia Application List 87, indemnity limits;
" " " 44, primary limits.

October 7, 1903.

The Honorable
Commissioner of the
General Land Office.

Sir:

The Southern Pacific Railroad Company applied to select **[1212]** in the above list No. 87 the SE ¼

of Section 23, the SW¼ of Sec. 25, and the SW ¼ of Sec. 27, T. 32 S., R. 25 E., M. D. M., 480 acres, and in the above List 44 the SW ¼ Sec. 1, T. 30 S., R. 23 E., 160 acres. These applications were filed in the Los Angeles land office in October and November, 1900.

The Register & Receiver refused to approve said lists on the ground that the lands had been suspended from disposal by telegrams dated February 21 (or 23) and 28, 1900, respectively. In consequence of such action a large body of lands, including said 640 acres, were by said telegrams "temporarily" withdrawn because alleged to contain petroleum.

By the withdrawals mentioned, the Railroad Company is barred from having its said application lists approved by the Register and Receiver.

The Land Agent for the Railroad Company advised me that the lands are non-mineral in character and I, therefore, respectfully ask that a Special Agent be instructed to *at once* examine the said lands and report thereon to your office.

Very respectfully,

D. A. Chambers,

Attorney Southern Pacific RR. Co.

——oOo——

34

—

342 (Endorsement on Back) 128/56

U. S. General Land Office,

Received Oct 8 1903

169269

D. A. Chambers
Oct. 7-1903 City

As Atty for Southern Pac. Ry. Co.—asks special Agent examine character lands in Visalia App'n list 87 Indty limits, [1213] & Visalia Appn list 44 Primary Limits

Calf

Refd Div "N" Oct. 14/03 JDY
P Ans Oct 23 1903 ECF

The document last referred to and offered in evidence and read into the record is marked Plaintiff's Exhibit "TTT".

Mr. Mills—I also offer in evidence a certified copy of letter addressed to E. C. Ryan, special agent, General Land Office, dated October 23, 1903, signed by J. H. Fimple, Assistant Commissioner, exemplified under the seal of the General Land Office, which I will read into the record, as follows:

PLAINTIFF'S EXHIBIT U U U.

——o0o——

B. DEPARTMENT OF THE INTERIOR
M E L GENERAL LAND OFFICE 4-207-r
WASHINGTON

April 5, 1912.

I hereby certify that the annexed copy of office letter dated October 23, 1903, is a true and literal exemplification from the record of said letter in this office.

IN TESTIMONY WHEREOF I have hereunto subscribed my name and caused the seal of this office to be affixed, at the city of Washington, on the day and year above written.

H. W. SANFORD
Recorder of the General Land Office.

(SEAL OF THE GENERAL LAND OFFICE).

[1214]

N. H. O. C.

DEPARTMENT OF THE INTERIOR
E.C.F. GENERAL LAND OFFICE, HGP
WASHINGTON, D. C., October 23, 1903.

Address only the
Commissioner of the General Land Office.
Southern Pacific R. R. Co.,
Ex parte
Quasi Contests 1997 and 1998.

Mr. E. C. Ryan,
Special Agent, G. L. O.,
Los Angeles, California.

Sir:

The Southern Pacific Railroad Company has filed application in the Visalia land office to select the SE ¼ Sec. 23, the SW ¼ Sec. 25 and SW ¼ Sec. 27, T. 32 S., R. 25 E., M. D. M., and the SW ¼ Sec 1, T. 30 S., R. 23 E., M. D. M. The lands in the above named townships were suspended from disposition under the agricultural land laws on account of their alleged mineral (oil) character by telegrams "P" of February 21st and 28, 1900. It is alleged by the rail-

road company that the tracts above described are in fact non-mineral in character. You are therefore directed, in the regular order of business, to proceed to and examine the lands in question and thereafter submit report to this office stating whether or not in your opinion the same should be relieved from suspension. When making report please refer to Quasi Contests 1997 and 1998.

Very respectfully,

J. H. FIMPLE,
Assistant Commissioner.

WPW 17 **[1215]**

The document last above referred to and offered in evidence and read into the record is marked Plaintiff's Exhibit "UUU."

Mr. Mills—I also offer certified copy of letter dated November 30, 1903, addressed to the Commissioner of the General Land Office, by D. A. Chambers, exemplified under the seal of the General Land Office, and ask that it be marked Plaintiff's Exhibit "VVV", and I will read it into the record, as follows:

PLAINTIFF'S EXHIBIT V V V

"B" 4-207 r
M E.L

DEPARTMENT OF THE INTERIOR
GENERAL LAND OFFICE
WASHINGTON

July 30, 1912.

I hereby certify that the annexed copy of letter dated November 30, 1903, is a true and literal exemplification of the original on file in this office.

IN TESTIMONY WHEREOF I have hereunto subscribed my name and caused the seal of this office to be affixed, at the City of Washington, on the day and year above written.

H. W. SANFORD,
Recorder of the General Land Office.

(SEAL OF THE GENERAL LAND OFFICE.)

[1216]

D. A. CHAMBERS,
ATTORNEY,
McGILL BUILDING 908 G Street, N. W.
Washington, D. C.

Division P

November 30, 1903.

The Honorable
Commissioner of the
General Land Office.

Sir:

The following lands are within the indemnity limits of the grant made to the Southern Pacific Railroad Co., by the Act of July 27, 1866, to-wit:

All Sec. 15, NE¼ and S½ Sec. 17, NE¼ and S½ Sec. 19, all of Sections 21, 23, 25, 27, 29, 33 and 35, T. 30 S., R. 23 E., M. D. M., Visalia land district, California.

These lands, if not oil lands, are subject to selection by the Company under its grant. But, on the allegation that they contained oil, the said lands, by your office telegram of the Register and Receiver, "P", February 28, 1900, were suspended from entry, etc.

Nearly four years have elapsed since said telegram of suspension was issued on mere allegation—a sufficient time, it would seem, to ascertain whether the lands are valuable for oil or not—but an examination of the tract books in your office fails to show the entry of a single acre of these lands under the Act allowing entry of lands valuable for oil.

Upon my request of October 7, 1903, your office wrote me October 23rd (Quasi Contests 1997 and 1998) "that an investigation" of other lands described, (among them the SW¼ Sec. 1 **[1217]** of said T. 30 S., R. 23 E.) "will be made by an agent of this "office and upon receipt of this report appropriate action will "be taken upon the application of the Company to select same."

I, therefore, respectfully ask that a special agent be instructed to *at once* examine said lands and report thereon to your office.

Very respectfully,
D. A. Chambers,
Attorney Southern Pacific R. R. Co.

(Endorsement on Back)
26
—
57
U. S. GENERAL LAND OFFICE,
RECEIVED DEC. 7, 1903
204885

D. A. Chambers,
City.

Nov. 30, 1903.

Asks that desc. lands within grant to S. P. R. R. Co. be examined.

Ans. Dec. 10, 1903. E. C. F.

To Spl Agt. Ryan same date.

File.

N. 1 Enc.

The document last referred to, offered in evidence and read into the record, is marked Plaintiff's Exhibit "VVV."

Mr. Lewers—Unless I make an additional objection, **[1218]** the offers made may be considered as objected to on the grounds heretofore stated.

Mr. Mills—Yes. I now offer in evidence a certified copy of a letter dated December 10, 1903, addressed to E. C. Ryan, special agent, signed J. H. Fimple, Acting Commissioner, exemplified under the seal of the General Land Office, and ask that the same be marked Plaintiff's Exhibit "WWW," and will read it into the record, as follows:

4-207 r

B. PLAINTIFF'S EXHIBIT W W W.

M E L

DEPARTMENT OF THE INTERIOR
GENERAL LAND OFFICE
WASHINGTON

April 5, 1912.

I hereby certify that the annexed copy of office letter dated December 10, 1903, is a true and literal exemplification from the record of said letter in this office.

IN TESTIMONY WHEREOF I have hereunto subscribed my name and caused the seal of this office to be affixed, at the city of Washington, on the day and year above written.

H. W. SANFORD.

Recorder of the General Land Office.

(SEAL OF THE GENERAL LAND OFFICE.) [1219]

N. H.G.P.

DEPARTMENT OF THE INTERIOR
E.C.F. GENERAL LAND OFFICE,
WASHINGTON, D. C., December 10, 1903.

Address only the
Commissioner of the General Land Office.

Mr. E. C. Ryan,
Special Agent G. L. O.,
Los Angeles, California.

Sir:

By letter of this office dated October 23, 1903, in case of *ex parte* Southern Pacific Railroad Company, Quasi Contests 1997 and 1998, you were directed to proceed to and examine the SE ¼ Sec. 23; the SW ¼ Sec. 25; the SW ¼ Sec. 27, T. 32 S., R. 25 E., and the SW ¼ Sec. 1, T. 30 S., R. 23 E., said tracts having been applied for by the railroad company and to submit report to this office stating whether or not in your opinion same should be relieved from the suspension placed thereon by telegrams "P" of February 21st and 28, 1900.

The Southern Pacific Railroad Company has now

requested that the following lands be also examined in order that same may be relieved from suspension and made subject to selection by the Company, being within the indemnity limits of its grant, if such examination discloses that same are agricultural in character. It is stated that nearly four years have elapsed since the order of suspension and that no mineral entries have been made for any of said lands. The lands referred to are described as follows: All section 15; NE ¼ and S ½ Sec. 17; NE ¼ and S ½ Sec. 19; all of sections 21, 23, 25, 27, 29, 33 and 35, T. 30 S., R. 23 E., M. D. M. You are accordingly **[1220]** directed, when you make examination of the lands first described to also examine the tracts just enumerated and to promptly thereafter submit report as to whether or not in your opinion same should be relieved from suspension.

This office has no available force from which to assign you assistance at the present time. With this condition of affairs in view, you will make report based upon the examinations heretofore made, your knowledge of the lands remaining to be examined, and familiarity with the country generally, as to whether in your opinion there is any necessity for the continuance of the suspension of the lands in the Visalia, San Francisco and Los Angeles land districts suspended by this office in 1900, and not reported upon, a list of which you have.

Very respectfully,

J. H. FIMPLE,
Acting Commissioner.

WPW 7

The document last offered in evidence and read into the record was marked Plaintiff's Exhibit "WWW."

Mr. Mills—I offer now copy of a letter addressed to the Commissioner of the General Land Office, certified, and under the seal of that office, dated January 22, 1904, signed E. C. Ryan, special agent, and ask that it be marked Plaintiff's Exhibit "XXX," and I will read it into the record as follows: [1221]

PLAINTIFF'S EXHIBIT XXX

B. 4-207r

MEL DEPARTMENT OF THE INTERIOR

General Land Office

Washington

April 5, 1912.

I hereby certify that the annexed copy, report of Special Agent E. C. Ryan, dated January 22, 1904, is a true and literal exemplification of the original paper in this office.

IN TESTIMONY WHEREOF I have hereunto subscribed my name and caused the seal of this office to be affixed at the city of Washington, on the day and year above written.

(Seal of the General Land Office)

H. W. SANFORD,
Recorder of the General Land Office.

DEPARTMENT OF THE INTERIOR 88085

General Land Office.

Los Angeles, Cal., January 22, 1904.

Hon. Commissioner
General Land Office,
Washington, D. C.

Sir:—

By your letter ("N" E.C.F.) of October 23, 1903, in case of *ex parte* Southern Pacific Railroad Company, Quasi Contests 1997 and 1998, I was directed to proceed to and examine the SE ¼ Section 23; the SW ¼ Section 25; the SW ¼ Section 27, Township 32 S., Range 25 E., M.D.M., and the SW ¼ Section [1222] 1, Township 30 S., Range 23 E., M.D.M., said tracts having been applied for by the railroad company, and to submit report stating whether or not in my opinion same should be relieved from the suspension placed thereon by telegrams "P" of February 21st and 28th, 1900.

By your letter ("N" E.C.F.) of December 10, 1903, I was directed to also examine Section 15; NE ¼ and S ½ Section 17; NE ¼ and S ½ Section 19; Sections 21, 23, 25, 27, 29, 33 and 35, Township 30 S., Range 23 E., M.D.M., and to submit report as to whether or not in my opinion said lands should be relieved from suspension.

I have the honor to report that on January 10th, 11th, 12th, 13th and 14th, 1904, I made a careful examination of the lands in question and found no oil seepages, oil springs, surface or other indications of oil or minerals of any kind that would tend, in my opinion, to warrant said lands being classed as min-

eral in character, and I respectfully recommend that they be relieved from suspension.

Very respectfully,

E. C. RYAN,
Special Agent, G. L. O.

(Endorsement on back)

167/57 U. S. GENERAL LAND OFFICE.
RECEIVED Jan. 30, 1904. 19630.

E. C. Ryan,
Special Agent, G. L. O.,
Los Angeles, Cal.
January 22, 1904. [1223]

Report as to the mineral (oil) character of certain lands in Tp. 30 S., R. 23 E. and Tp. 32 S., R. 25 E., M.D.M., applied for by the Southern Pacific Railroad Company. Instructions—office letters "N" E.C.F. October 23 and December 10, 1903.

Feby 11/04 R. & R. Visalia ECF
" 20 " " " " "

The document last referred to, offered in evidence, and read into the record, was marked Plaintiff's Exhibit "XXX".

Mr. Mills—I now offer in evidence a certified copy of a letter dated February 11, 1904, exemplified under the seal of the General Land Office, addressed to the register and receiver at Visalia, California, signed by J. H. Fimple, Assistant Commissioner, and ask that the same be marked Plaintiff's Exhibit "YYY", and I will read it into the record, as follows:

Mr. Lewers—To that letter we have no objection.
Mr. Mills—The letter just referred to, and offered in evidence, I will read into the record as follows:

PLAINTIFF'S EXHIBIT Y Y Y

B. 4-207 r

M E L DEPARTMENT OF THE INTERIOR

General Land Office,

Washington

April 5, 1912.

I hereby certify that the annexed copy of office letter dated February 11, 1904, is a true and literal exemplification [1224] from the record of said letter in this office.

IN TESTIMONY WHEREOF I have hereunto subscribed my name and caused the seal of this office to be affixed at the city of Washington, on the day and year above written.

(SEAL OF THE GENERAL LAND OFFICE)

H. W. Sanford,

Recorder of the General Land Office.

DEPARTMENT OF THE INTERIOR

N. W.O.C. H.G.P.

ECF General Land Office,

Washington, D. C.,

February 11, 1904.

Address only the Commissioner of the General Land Office.

Southern Pacific Railroad Company,
Ex parte.

Quasi Contest No. 1997.

Register and Receiver,
Visalia, California.

Sirs:

October 23, 1900, the Southern Pacific Railroad Company presented to your office for filing Secl. list No. 44, granted limits, for the SW ¼ Sec. 1, Tp. 30 S., R. 23 E., M.D.M., which selection was rejected by your office on the grounds that the land applied for was situated in a township suspended by this office February 28, 1900.

December 7, 1900 the Railroad Company filed an appeal from your said decision.

The said SW ¼ Sec. 1, has by even date been relieved **[1225]** from suspension and while your action in rejecting the list appears to have been correct in view of the then existing suspension there would appear now no objection to the allowance of said selection, which is herewith returned for appropriate action.

Quasi Contest No. 1997 is declared closed.

Very respectfully,

J. H. Fimple,
Assistant Commissioner.

The document last referred to, offered in evidence, and read into the record, is marked Plaintiff's Exhibit "YYY."

Mr. Mills—I offer now in evidence a certified copy exemplified under the seal of the General Land Office, of a letter dated February 11, 1904, to the register and receiver at Visalia, California, signed J. H. Fimple, Assistant Commissioner, and ask that the same be marked Plaintiff's Exhibit "ZZZ", and I will read the same into the record, as follows:

Mr. Lewers—We have no objection to the introduction of this letter; but in this connection, as these letters are being offered without any witness, we desire to call attention to the fact that they are initialed —this particular one and others—E.C.F., W.O.C. and H.G.P. Couldn't we reach an agreement as to who those persons are?

Mr. Mills—Mr. E. C. F. is Mr. Finney, and we will call him as a witness. I don't know who the others are.

Mr. Hoehling—W.O.C. is W.O.Conway, a law examiner. He is now dead. H.G.P. is Mr. Potter, and he is dead. **[1226]**

Mr. Lewers—Then it is agreed that with the exception of E. C. Finney those persons whose initials appear there are now dead?

Mr. Mills—Yes. I will now read the exhibit into the record, as follows:

PLAINTIFF'S EXHIBIT Z Z Z

B. 4-207r
M. E. L. DEPARTMENT OF THE INTERIOR
General Land Office
Washington

June 14, 1912.

I hereby certify that the annexed copy of office letter dated February 11, 1904, is a true and literal exemplification from the record of said letter in this office.

IN TESTIMONY WHEREOF I have hereunto subscribed my name and caused the seal of this office to be affixed, at the city of Washington, on the day and year above written.

(SEAL OF THE
GENERAL LAND
OFFICE)

John O'Connell
Acting Recorder of the General Land Office.

N. DEPARTMENT OF THE INTERIOR W. O. C.
E. C. F. General Land Office, H. G. P.
Washington, D. C., February 11, 1904.

Address only
The Commissioner of the
General Land Office. **[1227]**

Register and Receiver,
Visalia, California.

Sirs:

By telegrams "P" of February 21 and 28, 1900, Townships 30 S., Range 23 E., and 32 S., 25 E., M. D. M. were suspended from disposition under the agri-

cultural land laws upon allegations that same contained deposits of mineral (oil).

I am now in receipt of a report from a Special Agent of this office who has examined the SW¼, Sec. 1. Sec. 15, NE¼ and S½, Sec. 17. NE¼ and S½, Sec. 19; Sections 21, 23, 25, 27, 33, 35, Tp. 30 S., R. 23 E., SE¼, Sec. 23, SW¼ Sec. 25 and the SW¼, Sec. 27, Tp. 32 S., R. 25 E., M. D. M. and who states that a careful examination thereof failed to disclose any oil seepages, oil springs, surface or other indications of oil or minerals of any kind that would tend to warrant the lands being classed as mineral. He recommends that same be relieved from suspension. The statements made in the Special Agent's report are not controverted by the records of this office and it would appear that during the period of nearly four years, which has elapsed since said suspension, any persons interested in the mineral development of the lands have had ample opportunity to explore and develop the same.

In view of these facts, it appearing that no oil or mineral of any kind has been discovered upon the lands in question it is believed that no good reason exists for the further suspension thereof. Accordingly, the lands hereinabove described are hereby relieved from suspension.

Make the proper notations upon your records.

Very respectfully,

J. H. Fimple,

Assistant Commissioner. **[1228]**

The document last referred to, offered in evidence,

and read into the record, is marked Plaintiff's Exhibit "ZZZ."

Mr. Mills—I now offer a certified copy of a letter dated February 20, 1904, exemplified under the seal of the General Office, addressed to the register and receiver at Visalia, California, signed W. A. Richards, Commissioner, and ask that the same be marked Plaintiff's Exhibit "4A," and I will read it into the record, as follows:

PLAINTIFF'S EXHIBIT Z Z Z

B. 4-207r
M. E. L. DEPARTMENT OF THE INTERIOR
General Land Office
Washington

June 14, 1912.

I hereby certify that the annexed copy of office letter dated February 11, 1904, is a true and literal exemplification from the record of said letter in this office.

IN TESTIMONY WHEREOF I have hereunto subscribed my name and caused the seal of this office to be affixed, at the city of Washington, on the day and year above written.

(SEAL OF THE GENERAL LAND OFFICE)

John O'Connell
Acting Recorder of the General Land Office. **[1229]**

N. DEPARTMENT OF THE INTERIOR
ECF General Land Office, H.G.P
Washington, D. C. February 20, 1904.

Address only the
Commissioner of the General
Land Office.

Register and Receiver,
Visalia, California.

Sirs:

Telegram "P" of February 28, 1900, suspended lands in T. 30 S., R. 23 E., M.D.M., from disposition under the agricultural land laws, it being alleged that same contain deposits of oil. During the month of January 1904, a special agent of this office examined section 29 of said township and reports that he found no oil seepages, oil springs, surface or other indications of oil or minerals of any kind upon said section. He recommends that same be relieved from suspension. No objection thereto appearing upon the records of this office said recommendation is concurred in and Sec. 29, T. 30 S., R. 23 E., M.D.M., is hereby relieved from suspension.

Very respectfully,

W. A. Richards,
Commissioner.

The document last referred to, offered in evidence, and read into the record, is marked Plaintiff's Exhibit "4 A."

Mr. Lewers—We have no objection to that exhibit.

Mr. Mills—I now offer in evidence a certified copy of a letter dated March 22, 1904, exemplified under the seal of the General Land Office, addressed to the Commissioner **[1230]** of the General Land Office,

signed by E. C. Ryan, special agent, and ask that it be marked Plaintiff's Exhibit |4 B" and I will read it into the record as follows:

PLAINTIFF'S EXHIBIT 4-B

4-207r

DEPARTMENT OF THE INTERIOR
General Land Office
Washington

April 5, 1912.

I hereby certify that the annexed copy of report of Special Agent E. C. Ryan, dated March 22, 1904, is a true and literal exemplification from the copy on file in this office.

IN TESTIMONY WHEREOF I have hereunto subscribed my name and caused the seal of this office to be affixed, at the city of Washington, on the day and year above written.

(SEAL OF THE GENERAL LAND OFFICE)

H. W. Sanford,
Recorder of the General Land Office.

(COPY)

DEPARTMENT OF THE INTERIOR
General Land Office.
623 Butler Bldg.,
San Francisco, Cal.

Los Angeles, Cal., March 22, 1904.

Hon. Commissioner,
General Land Office,
Washington, D. C. [1231]

Sir:—

Referring to your letter ("N" E.C.F.) of December 10, 1903, directing me to make report based upon the examinations heretofore made, my knowledge of the lands remaining to be examined, and familiarity with the country generally, as to whether in my opinion there is any necessity for the continuance of the suspension of the lands in the Visalia, San Francisco and Los Angeles land districts suspended by your office in 1900, and not reported upon, I now have the honor to submit report upon the following described lands:—

Township	Range.		
19 S	15 E.,	M.D.M.	
27 S	27 E.,	"	Sec. 25 to 36 Incl.
28 S	27 E.,	"	Secs. 11, 12, 13, 14, 23, 24, 25, 26, 35 and 36.
28 S	28 E.,	"	
29 S	28 E.,	"	Secs. 2 to 1 incls.
29 S	20 E.,	"	
29 S	21 E.,	"	
29 S	22 E.,	"	
30 S	21 E.,	"	
30 S	22 E.,	"	
30 S	23 E.,	"	
31 S	22 E.,	"	

31 S	23 E.,	"	
31 S	24 E.,	"	
31 S	25 E.,	"	
32 S	20 E.,	"	
32 S	22 E.,	"	
32 S	23 E.,	"	[1232]
32 S	24 E.,	"	
32 S	25 E.,	"	
11 N	23 W.,	S.B.M.	
11 N	24 W.,	"	
11 N	28 W.,	"	
12 N	23 W.,	"	
12 N	28 W.,	"	

T. 19 S., R. 15 E., is in what is known as the Coalinga Oil Field, and is said by a number of mining men to be one of the best oil fields in the State. So far as I have been able to ascertain, there are about 90 producing wells in this township, among them being the famous well known as the "Blue Goose," which has been in active operation for several years and has produced for its owners, I am informed, more than a million of dollars. Many wells are now being bored for oil in this township, nearly all of which I believe will be large producers. In my opinion it will be well to have all the lands in this township remain under suspension for the present.

T. 27 S., R. 27 E., Sections 25 and 36 inclusive, I know of no wells in these sections, and in my opinion there is no necessity for the continuance of the suspension of said lands.

T. 28 S., R. 27 E., Sections 11, 12, 13, 14, 23, 24, 25, 26, 35, 36. So far as I have been able to ascertain, there are 7 wells in Sec. 24, 5 in Sec. 25, and 2 in Sec. 36, in all of which, it is said, oil has been found. Said sections are in what is known as the Kern River Oil Field. In my opinion Sections 11, 12, 13, 14, 23, 26 and 35 should be relieved from suspension, but I believe it will be well to have Sections 24, 25 and 36 remain under suspension. **[1233]**

T. 28 S., R. 28 E., is in what is known as the Kern River Oil Field. There are a great many producing oil wells in the S½ of this township; so far as I have been able to ascertain 7 wells have been bored in the S½ of Sec. 19, 1 in the NW¼ and 4 in the S½ of Sec. 20, 1 in the SW ¼ Sec. 21, about 36 in Sec. 28, and a great many in Sections 29, 30, 31, 32, 33 and 34, in all of which it is said oil has been obtained. Many of these wells are large producers. It is said by mining men who know the field well that the northern part of this township is not now considered to be of value for its mineral. In my opinion there is no necessity for the continuance of the lands in Sections 1 to 18 inclusive, but think that Sections 19 to 36 inclusive should remain under the order of suspension.

T. 29 S., R. 28 E., Sections 2 to 11 inclusive. These sections are also in the Kern River Oil Field. There are, so far as I can learn, 5 oil wells in Sec 2, about 92 in Sec. 3, about 176 in Sec. 4, about 80 in Sec. 5, 13 in Sec. 8, 11 in the NW ¼ Sec. 9, 1 in the SW ¼ NW ¼ Sec. 10, and 2 in the NW ¼ NW ¼ Sec. 11.

In my opinion it will be well to have these sections remain under your order of suspension.

T. 29 S., R. 20 E. So far as I am able to ascertain 5 wells were bored in Sec. 36 and 1 in the NE ¼ of Sec. 13, in which only a small quantity of oil was obtained. This does not appear to be a productive territory, and in my opinion there is no necessity for the continuance of the suspension of the lands in this township. **[1234]**

T. 29 S., R. 21 E. From all I can ascertain 4 wells were bored in the N ½ of Sec. 19 and one in the S ½ of Sec. 7, in which a small quantity of oil was obtained, one well was bored in Sec. 32 and 2 wells were bored in Sec. 31, all of which I am informed, have been abandoned. In my opinion there is no necessity for the continuance of the suspension of the lands in this township.

T. 29 S., R. 22 E. So far as I have been able to ascertain no wells have been bored for oil, and in my opinion the lands in this township should be relieved from further suspension.

T. 30 S., R. 21 E., is in what is known as the McKittrick Oil Field. About 40 wells have been bored in this township, in all of which, I am informed, oil has been obtained. Said wells are in S ½ of Sec. 11. Sections 12 and 13, and lot 73, Sec. 14 (Patented). Several other wells have been bored for oil and abandoned. The greater portion of the lands in this township are chiefly valuable for agriculture (grazing) purposes, and it is my opinion that all the lands

therein, except the S ½ of Sec. 11, Sections 12 and 13, should be relieved from further suspension.

T. 30 S., R. 22 E., is in the McKittrick Oil Field. Many wells have been bored for oil in this township, some of which are fairly good producers. So far as I have been able to ascertain there is 1 oil well in Sec. 6, and 1 oil well in Sec. 7, 6 wells have been bored in Sec. 18, all of which are said to contain oil; 14 wells have been bored in Section 19 in 11 of which oil was found and the others **[1235]** have been abandoned; 24 wells bored in Sec. 20, 21 of which are said to contain oil, and the others have been abandoned; 1 oil well in Sec. 27; 8 wells bored in Sec. 28, all of which have been abandoned; 17 wells bored in the NE ¼ Sec. 29, all of which are said to contain oil; 3 wells bored in the NW ¼ Sec. 29 and abandoned; 1 well bored in the SW ¼ Sec. 29 and abandoned; 1 well bored in the NE ¼ Sec. 30 and abandoned; 5 wells bored in Sec. 34, all of which are said to contain oil. The productive territory appears to be very well known and outlined, and in my opinion there is no necessity for the continuance of the suspension of the lands in this township, except Sections 6, 7, 18, 19, 20, 27, E ½ Sec. 29 and 34.

T. 30 S., R. 23 E. No wells have been bored for oil, and in my opinion all the lands in this township should be relieved from further suspension.

T. 31 S., R. 22 & 23 E. Wells have been bored, but I know of no successful result, and in my opinion all the lands in these townships should be relieved from suspension.

T. 31 S., R. 24 E., is not considered to be in a probable oil-producing territory and my opinion all the lands therein should be relieved from suspension.

T. 31 S., R. 25 E., is not considered to be in a probable oil-producing territory. I know of no oil wells in this township, and in my opinion all the lands therein should be relieved from further suspension.

T. 32 S., R. 20 E. I know of no oil wells in this township, and in my opinion there is no necessity for the continuance of the suspension of the lands therein. **[1236]**

T. 32 S., R. 22 E. There are no oil wells in this township, so far as I have been able to ascertain, and it is my opinion that all the lands therein should be relieved from suspension.

T. 32 S., R. 23 E., is in what is known as the South Midway Oil Field. In this township there are, so far as I have been able to ascertain, about 38 oil wells, 2 of which are in Sec. 5, 1 in Sec. 6, 6 in Sec. 8, 2 in Sec. 9, 1 in Sec. 15, 2 in Sec. 17, 3 in Sec. 21, 4 in Sec. 22, 4 in Sec. 23, 5 in Sec. 25, 7 in Sec. 26, and 1 in Sec. 27; other wells are being bored in a few of these sections. In my opinion it will be well to have the above mentioned sections remain under suspension, and relieve from further suspension Sections 1, 2, 3, 4, 7, 10, 11, 12, 13, 14, 16, 18, 19, 20, 24 and 28 to 36 inclusive.

T. 32 S., R. 24 E. In my opinion there is no necessity for the continuance of the suspension of the lands in this township, except Sections 30, 31, and 32, which are thought to be in the oil belt. From all I

can learn 2 wells are being bored for oil in Sec. 30, 3 wells have been bored in Sec. 31 and 1 in Sec. 32 in which it is said oil has been obtained.

T. 32 S., R. 25 E. I know of no oil wells in this township and in my opinion all the lands therein should be relieved from further suspension.

T. 11 N., R. 23 W. So far as I have been able to ascertain 19 wells have been bored in this township, all of which are said to contain oil; said wells are in Sections 7, 17, 18, 19 and 20. In my opinion there is no necessity for [1237] the continuance of the suspension of the lands in this township, except Sections 7, 17, 18, 19 and 20.

T. 11 N., R. 24 W., is in what is known as the Sunset Oil Field. About 70 wells have been bored in this township in which it is said oil has been obtained; said wells are in Sections 1, 2, 3 11, 12, 13 and 16; many other wells are being bored in said sections. Wells have been bored in Sections 14, 23 and 22, all of which have been abandoned. In my opinion there is no necessity for the continuance of the suspension of the lands in this township, except Sections 1, 2, 3, 11, 12, 13, 16.

T. 11 N. R. 28 W. I know of no oil wells in this township, and in my opinion all the lands therein should be relieved from suspension.

T. 12 N., R. 23 W. I know of no producing wells in this township, and it is my opinion that all the lands embraced therein should be relieved from further suspension.

T. 12 N., R. 28 W. I know of no producing wells in this township, and it is my opinion that all the lands embraced therein should be relieved from further suspension.

Very respectfully,
(Sg) E. C. Ryan
Special Agent, G. L. O.

The document last referred to, offered in evidence, and read into the record, is marked Plaintiff's Exhibit "4 B."

Mr. Mills—I now offer in evidence a certified copy of a letter dated April 5, 1904, exemplified under the seal of **[1238]** the General Land Office, addressed to the register and receiver at Visalia, California, signed J. T. Macey, and ask that it be marked Plaintiff's Exhibit "4-C", and I will read it into the record as follows:

Mr. Lewers—To the letter of March 22, 1904, written by E. C. Ryan to the Commissioner of the General Land Office, we make the same general objection as heretofore made.

Mr. Mills—What was that?

Mr. Lewers—The same general objection as made to the letters offered from the Chambers letter book. To the last exhibit offered of date April 5, 1904, we have no objection.

Mr. Mills—I will read into the record the letter of April 5, 1904, as follows:

PLAINTIFF'S EXHIBIT 4-C.

M E L DEPARTMENT OF THE INTERIOR
General Land Office
Washington

April 5, 1912.

I hereby certify that the annexed copy of office letter dated April 5, 1904, is a true and literal exemplification from the record of said letter in this office.

IN TESTIMONY WHEREOF I have hereunto subscribed my name and caused the seal of this office to be affixed, at the city of Washington, on the day and year above written.

H. W. Sanford,
Recorder of the General Land Office. **[1239]**

56802-1904-N. WHP

DEPARTMENT OF THE INTERIOR
E.C.F.

General Land Office,
Washington, D. C., April 5, 1904.

Address only the
Commissioner of the General
Land Office

Register and Receiver,
Visalia, California.

Sirs:

By letter of December 10, 1903, a special agent of this office was directed to submit report based upon examinations heretofore made by him, his general knowledge of the lands and familiarity with the country generally, as to whether in his opinion there is any necessity for the continuance of the suspen-

sion of lands in your district suspended by this office in February 1900 on account of their alleged oil character.

I am now in receipt of the agent's report to the effect that certain of the lands so suspended are being developed for their deposits of mineral and that numerous oil wells have been sunk which have proved to be good producers of mineral. Other townships and portions of townships have not been developed at all for wells that have been sunk have proved to be barren. The lands upon which he states active mineral development is in progress will be allowed to continue suspended but as to the following tracts where no mineral has been discovered it is believed that no good reason exists for further suspension.

Accordingly, the lands hereinafter described are hereby [1240] relieved from suspension.

Sections 25 and 36 inclusive, T. 27 S. R. 27 E., M. D. M.

Sections 11, 12, 13, 14 23, 26 and 35, T. 28 S., R. 27 E. M. D. M.

Sections 1 to 18, inclusive, T. 28 S., R. 28 E., M. D. M.

All of T. 29 S., R. 20 E. M.D.M.

All of T. 29 S., R. 21 E. M.D.M.

All of T. 29 S., R. 22 E. M.D.M.

All of T. 30 S., R. 21 E., M.D.M. except S ½ Sec. 11, Secs. 12, 13.

All of T. 30 S., R. 22 E., M.D.M. except sections 6, 7, 18, 19, 20, 27, E ½ 29, and 34.

All of T. 30 S., R. 23 E. M.D.M.
All of T. 31 S., R. 22 E. M.D.M.
All of T. 31 S., R. 23 E., M.D.M.
All of T. 31 S., R. 24 E. M.D.M .
All of T. 31 S., R. 25 E. M.D.M.
Sections 1, 2, 3, 4, 7, 10, 11, 12, 13, 14, 16, 18, 19, 20, 24, 28, 29, 30, 31, 32, 33, 34, 35 and 36, T. 32 S., R. 23 E., M.D.M.
All of T. 32 S., R. 24 E. M.D.M., except sections 30, 31 and 32.
All of T. 32 S., R. 25 E., M.D.M.
Make the proper notations upon the records of your office.

Very respectfully,
J. T. Macey,
Acting Commissioner.

WPW 2.

The document last referred to, offered in evidence and read into the record, is marked Plaintiff's Exhibit "4-C".

Mr. Mills—I now offer in evidence a certified copy, **[1241]** exemplified under the seal of the General Land Office, of an affidavit signed by Charles W. Eberlein, dated June 20, 1904. In that connection I desire to state that there is another affidavit, which we are searching for, signed by Mr. Eberlein, in respect to the same land; and when we find it, we will have it certified and introduce it.

I will now read into the record the affidavit last referred to, and ask that the same be marked Plaintiff's Exhibit "4 D", as follows:

Mr. Lewers—Isn't there any correspondence that goes with this that you have?

Mr. Mills—I haven't any. The papers in the General Land Office as of the date that this was written were done up in bunches and boxes.

Mr. Hoehling—And some of them might have been destroyed.

Mr. Mills—I am informed that when Mr. Ballinger came in he revised the filing system, and that some of them filed since 1907 I can get in a minute. Some of these, prior to that date, we cannot find at all. After an accumulation of a vast amount of correspondence, when the cases were apparently closed, they sometimes burned and destroyed the papers.

Mr. Lewers—I object to the introduction of this exhibit, the certified copy of this affidavit, on the ground that it is not the original.

Mr. Mills—Then I will state that I will introduce the original, if we can withdraw it, and substitute the certified copy. **[1242]**

Mr. Lewers—And on the further ground that its production is not in any way accounted for. So far as it at present appears, it is purely a fugitive document.

Mr. Mills—I will now read into the record the affidavit last referred to as follows:

B PLAINTIFF'S EXHIBIT 4-D

M E L 4-207r

DEPARTMENT OF THE INTERIOR
General Land Office
Washington

June 26, 1912.

I hereby certify that the annexed copy of affidavit of Charles W. Eberlein, is a true and literal exemplification of the original paper on file in this office.

IN TESTIMONY WHEREOF I have hereunto subscribed my name and caused the seal of this office to be affixed, at the city of Washington, on the day and year above written.

H. W. SANFORD,
Recorder of the General Land Office.

(SEAL OF THE GENERAL
LAND OFFICE)

STATE OF CALIFORNIA }
CITY AND COUNTY OF SAN FRANCISCO. } ss.

Charles W. Eberlein, being duly sworn, deposes and says that he is the Acting Land Agent of the Southern Pacific **[1243]** Railroad Company, that the lands selected by the Southern Pacific Railroad Company for patent in its Visalia Indemnity Limits List No. 89, have been carefully examined by the agents and employees of said Company as to their mineral or agricultural character, and that, to the best of his knowledge and belief, none of the lands returned in said List No. 89 are mineral lands.

Charles W. Eberlain.

Subscribed and sworn to before me this 20th day of June, 1904.

E. B. Ryan,

Notary Public in and for the City and County of San Francisco, State of California.

(Endorsement on back.)

U. S. GENERAL LAND OFFICE

RECEIVED JUL. 20, 1904

129481.

The document last referred to, offered in evidence and read into the record, is marked Plaintiff's Exhibit "4-D."

Mr. Mills—I now offer in evidence a certified copy exemplified under the seal of the General Land Office, of a letter dated July 14, 1904, addressed to the Commissioner, and signed by George W. Stewart, register, and ask that the same be marked Plaintiff's Exhibit "4-E," and I will read it into the record as follows: **[1244]**

PLAINTIFF'S EXHIBIT 4-E.

B 4-207r.

M E L DEPARTMENT OF THE INTERIOR

General Land Office

Washington

June 26, 1912.

I hereby certify that the annexed copy of letter dated July 14, 1904, is a true and literal exemplification of the original on file in this office.

IN TESTIMONY WHEREOF I have hereunto subscribed my name and caused the seal of this office to be affixed, at the city of Washington, on the day and year above written.

H. W. Sanford,
Recorder of the General Land Office.

(SEAL OF THE GENERAL LAND OFFICE)

DEPARTMENT OF THE INTERIOR,
UNITED STATES LAND OFFICE,

Visalia, Cal., July 14, 1904.

Hon. Commissioner General Land Office,
Washington, D. C.

Sir:

Your letter "N" of February 20, 1904, returned for acceptance selection list No. 89 of the Southern Pacific Company. Said list was accepted February 26, 1904. As the land embraced therein is in the vicinity of mining claims **[1245]** we required said Company to have publication of same made. We have received proof of publication and payment of costs thereof and non-mineral affidavit. Said papers and Register's certificate of posting notice in office are transmitted herewith.

No contests, protests or objections have been filed in this office.

Very respectfully,
Geo. W. Stewart,
Register.

(Endorsed on back.)

34/59 U. S. GENERAL LAND OFFICE
RECEIVED JUL. 20, 1904. 129481.

UNITED STATES LAND OFFICE, Visalia, Cal., July 14, 1904. Register transmits S. R. R. R. Co.'s Selection list No. 89 in.....of.....July 21/04 refd to Div F ECT HGP involving the .....of Sec.....

No ans. rec'd. CAS files FCN

Tp.....R.....Reference is had to letter "N" of (E.C.A.) of Feb'y 20 1902. 56/39.

Aug. 4, 1904 to R & R returning list 89 with instructions D. A. Chambers advised. Wood.

The letter last referred to, offered in evidence, and read into the record, is marked Plaintiff's Exhibit "4E."

Mr. Lewers—In determining whether we have any objection to this last offer, we desire to inquire whether you have the original, or a certified copy, of the enclosures referred to herein and if you intend to offer those in evidence. **[1246]**

Mr. Mills—I haven't them in my possession, and I don't know whether they are existing now in the Land Office; but I will make some inquiry about them. Perhaps I do have them.

Mr. Hoehling—Proofs of publication, payment of costs, and affidavits. Will you put them in?

Mr. Mills—I may, if you want me to. It is not part of my case.

Mr. Lewers—We should like to have them. If we are sure those will be introduced, we have no objec-

tion; but if they are not, we object to the introduction of this on the ground that it is incomplete, as it refers to certain proofs of publication accompanying the same which are not attached to the exhibit.

Mr. Mills—Let it be marked subject to the objection.

Mr. Mills—I now offer in evidence a certified copy, exemplified under the seal of the General Land Office, of list No. 110, Southern Pacific Railroad lands, indemnity limits, and ask that it be marked as Plaintiff's Exhibit "4 F".

The document last referred to and offered in evidence is marked Plaintiff's Exhibit "4 F."

Mr. Mills—I now offer in evidence a certified copy, exemplified under the seal of the General Land Office, of Patent 135, and ask that the same be marked Plaintiff's Exhibit "4 G."

The document last referred to and offered in evidence was marked Plaintiff's Exhibit "4 G."

Whereupon an adjournment was taken until two o'clock p.m., August 2, 1912, at the same place. **[1247]**

Mr. Lewers—Mr. Examiner, I am just in receipt of the letter written by Charles W. Eberlein to D. A. Chambers, under date of December 10, 1903, being the letter recently demanded by Mr. Mills; and I now offer it in evidence. In offering this, we do not desire to be taken as waiving any right to claim privilege, or privileged communication, in connection with any other correspondence either in this or in any of the other cases affecting the alleged oil lands in Cali-

fornia, and this is offered at this time because of the fact that it is part of the correspondence which was introduced in evidence in Washington in August of last year.

Mr. Mills—No objection.

Mr. Lewers—I ask that the letter referred to be read into the record as follows: **[1248]**

"(6-15-03-2M) Ansd Dec 16 SC. 19 B

Telephone Main 1722 LAND DEPARTMENT

Note—Be careful in writing about land, to describe it particularly by section or parts of section, township and range.

OF THE

SOUTHERN PACIFIC RAILROAD COMPANY.

Room 67, Wells Fargo & Co. Express Building, Cor. Second and Mission Streets.

Dictated.

San Francisco, California, December 10, 1903.

Subject: Visalia Main Line Indemnity List No. 89.

Mr. D. A. Chambers,
McGill Building, 908 G. St., N. W.,
Washington, D. C.

Dear Sir:—

Referring to our correspondence in regard to this matter, I beg to say that under date of December 9th, Mr. Wm. F. Herrin advises me that *he* has taken an appeal from the Register and Receiver's rejection of Main Line Indemnity List No. 89, recently filed, and that a copy of his appeal has been forwarded to you.

In this letter, evidently written by Mr. Singer, occasion is taken to criticize somewhat the proceeding of this department. The following appears in his letter:

'The best course, it seems to me, was to accompany the selection list with affidavits setting forth that the lands are vacant and unappropriated nonmineral lands, and asking that the order of suspension be released. Such affidavits and petition would, I believe, have procured a hearing to be ordered, and if sustained should entitle our list to *nunc protunc* filing but if not, still our list **[1249]** would be ordered filed simultaneously with the release of suspension; and pendency of our selection would cut off intermediate settlement.'

It is possible that Mr. Herrin has written you in the same tenor, when sending you copy of the appeal.

This is a matter of practice, as to which I am willing to act under advice.

It seems to me, however, that the first and most necessary step to take was to file our list, as advised by you.

We, of course, knew of the suspension, and if there is any virtue in the filing of an affidavit I don't see why it cannot be done now as well as at the time of the filing of the list.

Will you give me the benefit of your advice, as to what is best to be done.

I am particularly anxious in regard to this list as the lands adjoin the oil territory, and Mr. Kruttschnitt is very solicitous in regard to it.

I have had in mind the suggestion you made sometime ago in regard to inducing Mr. E. C. Ryan, Special Agent at Los Angeles, to make his report.

I am not acquainted with Mr. Ryan, and it is a matter for serious consideration as how to approach him.

It would not do, certainly, to ask for a report recommending the release of the lands selected by us, from suspension. In my opinion it would not be politic to ask for a release in any particular district.

Mr. Ryan would, in all probability, jump at the [1250] conclusion that the railroad had some special information in regard to that district, and the result would probably be that our request would have the opposite effect from that desired.

All that I could do would be in a general way to ask him to submit a report of the lands covered by the order of suspension, which, as you know, embraces a very large area.

How would it do to ask the Department to suggest to Mr. Ryan that he make a report of so much of the lands within the suspension limits as he has examined up to this time.

It might be that such a report would cover the very district in which we are operating, and we would then be relieved from the danger of having called particular attention to any locality.

There is a point of land office practice as to which I would like your opinion.

Since succeeding Mr. Madden, two lists have been filed by this department and rejected. In both cases,

following out what appears to have been the rule in this department heretofore, I have written to the Law Department, stating the facts of filing, rejection, etc., and asked that a proper appeal be drawn and sent to me for execution and filing.

In both cases the Law Department has not only drawn but has perfected the appeal and filed it without reference to this department.

I do not know that there is any point involved, and the only reason that I am asking for your opinion is **[1251]** that heretofore I find, by reference to our office files, the appeal has been drawn in the Law Department and signed by the Land Agent, and by him forwarded to the Register and Receiver for filing. It is merely a question of what is the proper procedure.

I presume the General Land Office has its own ideas as to what officer should make the appeal, and I do not wish to vary the practice in such a manner as to confuse the Department, and hereafter lead to complications which might be very annoying.

Yours very truly,

Charles W. Eberlein,
Acting Land Agent."

The letter last referred to and read into the record, is introduced in evidence and marked "Defendants' Exhibit No. 199-LL." **[1252]**

EDWARD C. FINNEY,
Witness called on behalf of the Plaintiff.
August 2, 1912.

Direct Examination:

I am assistant attorney, in the office of the assistant attorney general, and reside at Washington, D. C.; I was appointed clerk in the General Land Office September 1st, 1894, and served eleven years as a clerk and examiner in the Mineral Division of said office, known as Division N; correspondence from that department bears the letter "N," which no other department uses; for the next three years I served as a member of the board of **[1253]** law review in the same office, reviewing letters and decisions prepared by the mineral division for the signature of the Commissioner; in 1909 I became assistant to the secretary of the interior, and served for one year; then chief law officer of the reclamation service, until May 1, 1911, when I resigned and entered the practice of law at Washington; November 1, 1911, I re-entered the service as an assistant attorney general, in the Interior Department; I became very familiar with the practice of the land department; at the date of Plaintiff's Exhibit QQQ, telegram from the Commissioner to the register and receiver at Visalia, suspending certain land, on February 28, 1900, I was in the land office, mineral division; I remember the circumstances under which that suspension was ordered; in the latter part of 1899 and in 1900, prior to the date of this telegram of February 28th, 1900, there were received in the general land office various letters and petitions from people in California who alleged that they were interested in the exploration for and exploitation of petroleum and other mineral oils; these

letters which I read, with which I was at that time familiar, represented that unless the lands were suspended from agricultural disposition and the various forms of forest lieu selection scrip, railroad selections, and other non-mineral filings, patents would be obtained thereto under the agricultural laws without affording sufficient time to make adequate explorations for minerals, and the Commissioner was asked to suspend the lands from disposition for a reasonable time, so that explorations might be made on the areas alleged to contain oil.

The effect given Exhibit QQQ by myself and other employees of the general land office, was it suspended from all disposition the lands described, and that no filings or selections of any kind could be properly received during its pendency, that no mineral entry for petroleum could be made, **[1254]** and non-mineral; the letter from D. A. Chambers, attorney for the Southern Pacific Railroad company, Plaintiff's Exhibit VVV, complaining that the company was deprived from selecting certain lands because of this suspension, was received in the Mineral Division, and assigned to me for action, by reference to the Division "P"; reference is therein made to a previous letter of October 7, 1903; the last letter mentioned, Exhibit TTT, dated October 7, 1903, I received in this manner in October, 1903,—or one similar, presumably the original of this copy; I prepared a reply which was signed by the Commissioner, and sent to Mr. Chambers.

On receipt of these letters in Division N, particu-

larly the last one, of November 30, 1903, I went to the Chief of Division P, in charge of the field force, and asked for the name and address of a special agent to make a field investigation of the lands included in the orders of suspension in California, with a view to obtaining information upon which the General Land Office might determine the advisability of either continuing or revoking the suspension orders; the only intention at that time was to determine whether the suspension should be lifted or not; it was my purpose, if the special agent's report so warranted, to prepare for the approval of the Commissioner a letter restoring the lands to general and appropriate disposition, and entry, selection and filing under the law applicable to them; if the report showed good reasons for continuing the suspension order, it was my intention to prepare letters denying the request of the attorney for the railroad company and advising the register and receiver that the suspension would be continued; so far as I know no action was taken to adjudicate the character of the lands involved in this suit during the years 1903 and 1904; I was thoroughly acquainted with the practice in this special tribunal known as the Interior Department, and know that special agents' **[1255]** reports were not made the bases for adjudicating the character of lands; they made field investigations and submitted information to the Commissioner, which the latter might regard or disregard, or use for ordering further investigation, or hearings, in contested cases or

in cases of applications to enter the lands examined under any land law.

During the entire period of my service, from 1894 to 1909, the Land Office adjudicated exparte cases, selections or entries, upon affidavits and other proofs submitted by the entrymen or selectors in accordance with the law or regulations governing that particular class of cases. In cases contested by other individuals or corporations, or by the Government, it was the practice to order hearings or trials, at which the testimony of witnesses might be taken, reduced to writing, and thereafter passed upon by the Land Department.

Q. Now, in a case in which there was no evidence adduced either for or against an application for selection of lands, but in which the investigation was limited by the Government to its own policy touching the disposition of the land, could there possibly be any adjudication of the character which would be binding or conclusive on the Government, according to the practice as you understood it?

A. In such a case, the General Land Office, in acting upon the selection or entry, would not base that action upon the agent's report, but would base its action upon the entry or selection and the accompanying proofs, that is, the proofs submitted by the entryman or selector in support of his filing.

Plaintiff's Exhibit UUU, a copy of a letter from J. H. Fimple, the Assistant Commissioner to E. C. Ryan, special agent, appears to be a certified copy of a letter which I prepared in October, 1903, and signed

by him on the 23rd; it describes the southeast quarter of section 23, the southwest quarter of section **[1256]** 25, southwest quarter of section 27, township 32 S. R. 25 E., M.D.M., and the southwest quarter of section 1, T. 30 S., R. 23 E., which are also described in Plaintiff's Exhibit TTT, dated October 7, 1903. That letter was written to Mr. Ryan in pursuance of some action taken upon the letter of Mr. Chambers, known as Government Exhibit "TTT". Reading the portion which you request which states what action would be taken by him in reference to those lands, it is as follows:

"It is alleged by the railroad company that the tracts above described are in fact non-mineral in character. You are therefore directed in the regular order of business to proceed to and examine the lands in question and thereafter submit report to this office stating whether or not in your opinion the same should be released from suspension. When making report please refer to quasi-contest 1997 and 1998."

Plaintiff's Exhibit WWW, a certified copy of a letter written to Mr. Ryan December 10, 1903, includes the lands which are described in TTT, and constituted the action to be taken by Mr. Ryan in respect to the examination of lands in this suit, in 30-23, as well as other lands. It related to the lands just described, as well as to other lands in California. Other lands covered by the orders of suspension of February 21 and 28, 1900. My recollection is that the orders of February 21, and February 28, 1900,

covered separate and different tracts of land. The last paragraph of Plaintiff's Exhibit WWW reads:

"This office has no available force from which to assign you assistants at the present time. With this condition of affairs in view, you will make report based upon examinations heretofore made. Your knowledge of the lands remaining to be examined and familiarity with the country generally, as to whether, in your opinion, there is any necessity for the continuance of the suspension of the lands in the Visalia, San Francisco and Los Angeles districts suspended by this office in 1900 and not reported upon, a list of which you have."

A large area had been suspended, and Mr. Ryan had been furnished with a list by the office, in 1900; I realized personally, and it was the general understanding and knowledge of the officials of the Land Office, that it would be physically impossible for one special agent to make a thorough and minute examination of [1257] each of the subdivisions of the lands withdrawn, within the time and with the money and the equipment he was allowed. My purpose, and that adopted by the Commissioner when he approved the letters directing the examination to be made, was to obtain general information, derived from a general examination of the lands and from whatever knowledge Mr. Ryan might be able to acquire or had already acquired. The Commissioner could not, and did not attempt, under the practice then prevailing, to adjudicate the character of lands upon a special

agent's investigation and report. Our purpose, and his purpose, was to obtain general information to guide him in restoring the lands to general disposition, so that desert land claimants, forest lieu selectors, mineral claimants, or any other qualified citizens or corporations might apply to select or enter the land under the applicable laws, upon submitting the proof of the character required by the law and regulations. There was no attempt to adjudicate the character of any particular tract of land in any of these letters which I prepared or with which I had to deal at this time. There was no attempt to send a person with special scientific qualifications to determine the character of the lands; after a report would be received, I personally examined some selections and entries made within former withdrawn areas, after revocation of these suspension, and I know it was the practice and requirement of the Land Office that such entries and selections should be accompanied and supported by usual proofs as to the character of land and compliance with the law; the revocation of a suspension was regarded and treated as a restoration to the former status.

Under the practice and rulings of the General Land Office then and now in force, a list of selections tendered when the lands are withdrawn would be regarded as vesting no right in the applicant for listing, and an appeal from the rejection would be treated simply as entitling the appellant to a decision as to [1258] the correctness of the action of the register and receiver; the numbers given to lists of selections are

simply for the convenience of the Land Office and the parties. Under the practice of the General Land Office, the filing of a new and separate selection list for the same lands, accompanied by new proofs, would be regarded as a waiver of the original filing or selection, and a substitution of the new selection therefor could be effective only from the filing of the latter selection;

Q. By Mr. Mills—Now, I am advised from the evidence already introduced in this cause that the list which this railroad company, the Southern Pacific Railroad Company, did file on February 26, 1904, was objected to by the Department because of some error in assigning base lands by wrong subdivisions, or something of that sort, and subsequently the new list was a corrected list in some way and assigned these lands by subdivisions. What effect, generally, would that have upon the list for which the new list was filed?—I think Mr. Stone testified that there was a mistake in assigning base lands for the list of February 26th.

Mr. Hoehling—And they were changed and a new list filed substituting these bases.

Q. By Mr. Mills—What effect would the amendment offered by Mr. Hoehling have?

A. Under the practice of the General Land Office, then and now, as I know it and understand it, the selection would be only effective from the time that a proper base was assigned for the tract selected as indemnity.

Q. Now, the selection list on which the patent was based in this case was dated September 6, 1904, and accepted by the register and receiver on September 12, 1904. The list was approved in the General Land Office and patent issued on December 12, 1904, which would be exactly three months later. Now on **[1259]** what list would that patent be based, assuming two lists previous to that had been made and filed by the railroad company upon the same lands?

A. The practice of the General Land Office was to make out, from the original selection list tendered, what is known as a clear list, which list would be submitted to the Department for approval and which would bear a different number from the selection list filed. That clear list should, under the practice, have been based, however, upon the selection list tendered by the company at a time when the selected lands were open and subject to selection and upon a list which was accompanied by a proper designation of bases for the indemnity sought.

Plaintiff's Exhibit 4 F is what is designated in the Land Department as an approved clear list of railroad selections; it is numbered 110 Southern Pacific Railroad lands, indemnity limits, Visalia Land District, California, the "110" is an office number given for the purpose of identifying the lists which have been recommended for approval of the Secretary of the Interior; even had the General Land Office during the year 1904 and subsequent to the order of suspension before it had been revoked, attempted to

adjudicate the character of lands suspended, it would not have relieved the railroad company from furnishing requisite non-mineral proofs in support of their applications or selections; Under the rulings and practice of the Department of the Interior and of the General Land Office, even the adjudication of a tract of land as mineral or non-mineral would not relieve a subsequent applicant, selector or entryman from submitting with his application, entry or selection, appropriate proofs as to the character of the land and other proofs required by the law and regulations to accompany that class of filing, selection or entry; the burden of satisfying the Commissioner of the character of lands, rests upon the applicant, entryman or selector. **[1260]**

I do not recall positively the time limit after selection for patents to issue, in 1904; but at no time between 1894 and 1909, were such selections taken up immediately and patented; at no time were they acted upon in less than thirty days after their receipt in the General Land Office, and at some time during that period they were required to be held for ninety days prior to action; one of the reasons for that was that actual settlers might file their homestead entry within three months; and it was to accord any other claimants, such as mineral locators, or other persons alleging an interest in or to the land, opportunity to object, not only to railroad selections, but to any filings or entries,—give them opportunity to get their protest or objection in to the General Land Office before patent issued.

Q. At the time that the Commissioner ordered these so-called examinations for the purpose of determining whether the suspensions should be continued or revoked, you may state whether or not, from your recollection, there was a feeling in the Department that the lands had been under suspension some time and there was some anxiety displayed by those in authority to promptly relieve a great many lands unless there had been some real showing in the way of exploration.

A. I know that there was such a feeling in the Department. I personally had noted several instances where railroad selections or the applications of homestead entrymen to enter these lands had been made and rejected by the register and receiver, and felt that if the agent's report disclosed no good reason to the contrary the lands should be restored to general disposition.

Q. As I understand you, the lands were suspended from all forms of disposition?

A. From all forms of disposition. No entry or selection could be allowed during the pendency of the order. **[1261]**

CROSS-EXAMINATION OF EDWARD C. FINNEY.

The embargo which was placed on these lands in respect to all kinds of entry or selection, and which had been in force during all the years after 1900, gave rise to applications, not only on behalf of the railroad

company to select, but by those who wished to make private entry upon the lands, and it was for that reason that the Department finally concluded that the time had arrived to ask for a report from the special agent; applications had been received for lands included within the orders of withdrawal by homestead applicants as well as by the railroad company.

Speaking of the effect given by the General Land Office to the report of any special agent, in the absence of a contest, and ordinarily on a contest, the Department, in making its decision on an application for land, decided the same upon the proofs submitted by the applicants, giving no weight to the report of the special agent. If, however, the report of the special agent had been to the effect that the lands applied for were in fact mineral, it might result in a rule or order issued by the Land Office for a hearing, at which the agricultural selector or entryman might have an opportunity to offer testimony concerning the character of the land, and the Government to offer testimony in support of the special agent's report, or to determine the true character of the land; in the absence of any report by an agent, or in the presence of a report that the lands were in fact nonmineral, the exparte proofs offered by the entryman or selector would be uncontroverted, and the practice of the Land Office at that time was to accept those proofs at their face value; if, however, the agent's report was contrary or opposed to the exparte evidence submitted, it might, and probably would, have resulted in the ordering of further investigation

or of a [1262] hearing to determine the character of the land; by "other proofs" I simply meant that after the lands had been restored to disposition, as in this case, the withdrawal orders had been revoked, the lands became just like other lands, similarly situated, subject to application or entry under appropriate laws, and the applicant or selector or entryman would have to submit the ordinary proofs required by the laws and regulations and applicable to that particular kind of filing; in all, or practically all, non-mineral filings one of the proofs required to be submitted is a non-mineral affidavit; other proofs might be evidence of publication of notice of the selection for filing.

The practice at that time required those publications in respect of applications to select lands which lie within six miles of a mineral claim, or in it; according to my recollection that publication was required to run for thirty days; I think it was required to be published in a newspaper within the land district, and I am not sure but that it was within the county; I cannot recall whether at that time it was required to be published in two papers or simply in the paper nearest the land; I don't recall whether in this particular case there was a publication, and whether it was published in two newspapers; I don't know that I passed on the selection list; the object of the publication was presumably to give notice to any persons having mining claims or locations in conflict with the selection or entry, and was designed to give the public information that application or selec-

tion was pending for those lands, and afford an opportunity to file a protest or contest; I do not recall that the publication was made as required, of this particular list 89; I don't recall that I actually acted on this list after it was finally received in the General Land Office and at the time it was submitted for approval; the clear list 110 does not bear my initials or signature; according to the photographic copy here on file, the **[1263]** action taken in the mineral division was attested by C. A. Hollingsworth, examiner, and H. G. Potter, chief of division, from which I should assume that the examination was made by Miss Hollingsworth.

It is my understanding that substitution of new base is permitted, but that in practice and legal effect the selection becomes a valid selection only from the time that a proper base is submitted; for instance, an intervening adverse claim to the land might defeat any such substitution, under our practice as I understand it.

Q. Is it not a fact that during the earlier administration of these railroad land grants the Department patented thousands of acres of indemnity lands without the furnishing of any bases at the time of the patent, but that the bases were not furnished until some time thereafter, and then furnished in lump, until that practice was changed?

A. I can't answer that question. I don't know whether or not such a practice obtained. According to my best recollection, it did not obtain in 1900.

Mr. Mills—When was that, Mr. Hoehling?

Mr. Hoehling—That was prior to 1903.

Mr. Lewers—Our position is that the assignment of a base is in no way a condition precedent affecting the validity of the patent.

Q. By Mr. Hoehling—Assume that this list 89, in one form or another, was pending for approval from 1903 until December, 1904, when patent issued thereon; is it your idea that the filing by the company, in September, 1904, of a mere substitute and corrected list as to bases merely, the lands selected not having been changed in any particular whatever, was in legal effect an entirely new indemnity selection list as of that later date in such sense as to permit intermediate private entries on the land to cut out the railroad indemnity selection? **[1264]**

A. It is of course a mere assumption that the list was regularly pending prior to the time of the filing of the new bases. Assuming a case where such a selection list had been regularly pending during that time, but on an insufficient base or upon no base at all, it is my understanding that it would become a valid selection only when a proper and valid base was offered to the Land Department. It is upon that understanding that I have given my opinion as to the legal effect of that situation; the order of suspension of 1900 covered a number of townships in California, and other lands than the lands in suit; I personally prepared for the commissioner's sig-

nature letters directing an investigation of lands other than those in township 30-23;

Q. And were some of those instances prior to the direction that was given in respect of these particular lands?

A. At the present time I cannot undertake to fix the dates when the letters were written or approved —in other words, I am not sure whether this was the first action or not—but I do recall that the action taken was the result of the letters filed there by Mr. Chambers, and also in part due to the fact that we knew of the offer and rejection of railroad selections and of homestead applications for some withdrawn lands.

RE-DIRECT EXAMINATION
OF
EDWARD C. FINNEY.

Both under the practice in 1903 and 1904, and under the law as I understand it, it was necessary that a loss must have occurred within the granted or primary limits before any indemnity selection might be made; I do not know the practice followed by the register and receiver at Visalia, or in California, with respect to whether the railroad could select its own newspaper for publication and deposit its fees. [1265]

RECROSS EXAMINATION
OF
EDWARD C. FINNEY.

The practice is somewhat different under various

laws or kinds of filing, and I am not entirely sure, but I am inclined to think that under the practice with respect to railroad selections the register and receiver were supposed to designate the newspaper for publication. **[1266]**

EDWIN C. RYAN

Forty-fourth Witness for the Plaintiff. Washington, D. C. August 5, 1912.

My name is Edwin C. Ryan and I am 47 years old. In 1903 and 904, I was a special agent of the General Land Office and was located at Los Angeles, Cal.

While I was located in California, I received instructions from the Commissioner of the General Land Office to examine some lands that had been suspended from entry under the telegrams of February 21 and 28, 1900. Pursuant to these instructions I examined the lands in suit in Township 30-23, along with other lands.

These instructions were partly in writing and partly oral, the oral instructions being received by me about the last of September, 1903, from Mr. Pollock, who was chief of the field service at that time. He told me that these lands had been suspended for about four years and asked me to make an investigation and an early report on them. I told him that it was impossible for me to go over all the lands without a camp outfit. He said that he did not think he could furnish me with the outfit, but that it was not necessary for me to go over all the lands; that I could drive over part of them just as the crow flies, and

to interview ranchmen, stockmen, as to the locality of oil wells producing oil in paying quantities. He told me to recommend that lands on which I did not find oil wells in paying quantities should be relieved from the suspension.

I visited the Elk Hills in January, 1904. I first went to a point where I could look over the lands and look around for oil wells but did not see any. I did not go on every section of the land on that examination. I may have gotten over four or five of them. I don't know as I did that. But I drove up to this high point. It was very rough land and it was [1267] physically impossible for me to get over all of it, but I went to that place where I could see if there were any oil wells.

I was instructed to examine all of the lands that remained under suspension, which included about twenty-five townships. I made a separate and special report upon the Elk Hills at that time. I hadn't gotten the data on which to base the general report which I made subsequently. My report on the Elk Hills included also a report on some lands in T. 32-25, which were examined on the same trip. I think I spent four or five days in making this examination of the lands in the Elk Hills, and in the other township mentioned. I first went into T. 30-23. The two places are about twenty-five miles apart.

I am not a geologist or mineralogist, and I examined these under the criterion given by Mr. Pollock. I did not make any geological determination of any kind as to their mineral character.

In my report of January 22, 1904, I said in reference to these lands in T. 30-23 and the other lands in 32-25: "I have the honor to report that on January 10, 11, 12, 13 and 14, 1904, I made a careful examination of the lands in question and found no oil seepage, oil springs, surface or other indications of oils, or minerals of any kind that would tend in my opinion to warrant said lands being classed as mineral in character, and I respectfully recommend that they be relieved from suspension."

I said in my report that I made a careful examination of these lands, because I had made a careful examination as to any oil wells that might have been there. That is all, I did not examine the land with reference to oil seepages or oil sands. As I said before, I did not go all over the land and I did not see any. I looked for them but I did not see any along the road over the land that I did go over. So far as I know, there might have been oil seepages or oil sands on those lands that I didn't go **[1268]** over. I was not instructed to go over every legal sub-division of those lands.

In my general report of March 22, 1904, I included the lands in T. 30-23 along with about twenty-four other townships. I probably got over half the townships in this entire number and interviewed people relative to the oil wells that might be there.

In my report of March 22, 1904, plaintiff's exhibit 4 B, I said: "Township 29 S., Range 20 E. So far as I am able to ascertain, five wells were bored in

Section 36, and one in the northeast quarter of Section 13, in which only a small quantity of oil has been obtained. This does not appear to be a productive territory and in my opinion there is no necessity for the continuance of a suspension of the lands in this township." The reason why I made this recommendation that the suspension be relieved, although I actually found oil being produced in two sections of that township, was because it was not produced in paying quantities, and under the criterion that was given me, I recommended that it be released. I also reported: "From all I can ascertain, four wells were bored in the north half of Section 19, and one in the south half of Section 7, in which a small quantity of oil was obtained. One well was bored in Section 32 and two wells were bored in Section 31, all of which, I am informed, have been abandoned. In my opinion, there is no necessity for the continuance of the suspension of lands in this township." I say the same of this township that I did of the others, that it was not producing in paying quantities. I also reported on Township 30 South, Range 23 East: "No wells have been bored for oil and in my opinion all the lands in this township should be relieved from further suspension." On about fifty per cent of these townships, as I estimated, I recommended that they be relieved from suspension on mere hearsay evidence, as they had been suspended on mere hearsay evidence. Under my instructions, I **[1269]** interviewed stockmen, cattlemen and anybody that I had a chance to meet along the line, and those lands that

I didn't pass over, I interviewed people with regard to them, and I even interviewed people with regard to the lands that I did pass over.

I never got any instructions either orally or written from the General Land Office to determine specifically the mineral or non-mineral character of these lands.

CROSS EXAMINATION OF EDWIN C. RYAN.

I am now a special assistant to the District Indian Agent at Muskogee, Oklahoma, and have been located there nearly five years. I have been connected with the Department of the Interior since the spring of 1899, at which time I was employed as a special agent of the General Land Office and was located at Seattle. I went to Los Angeles in October, 1899, and remained there continuously as a special agent until the fall of 1907. During this time I was over a part of the oil fields. I do not know just when I first went into the oil fields but it may have been in 1900 or 1901, at Bakersfield.

Afterwards I was at McKittrick for a while, passing in and out. This may have been in 1901. I was not in there very frequently but I cannot say very definitely how often. I think I was probably in there a couple of times or more in 1903. I went in there in 1903 to look over these suspended lands. I knew a man in the vicinity of McKittrick by the name of D. W. Maddux, but I cannot say when I became

acquainted with him, though it may have been in 1902. I was also acquainted with Will Maddux, but I cannot remember the names of any other persons I knew in McKittrick. I have no recollection of what I did when I went to McKittrick on the various trips I have referred to. **[1270]**

I remember receiving the letter of Mr. Fimple, Acting Commissioner of the General Land Office, dated December 10, 1903.

I was located at Los Angeles when I received this letter. Although I had received instructions to examine part of the lands by the Commissioner's letter of October 23, 1903, I did not make any examination until January, 1904. When I made this examination in January, 1904, D. W. Maddux accompanied me. We made our headquarters at McKittrick and were engaged approximately three days in making the examination of the Elk Hills. I cannot say that we were not four days in this examination of the Elk Hills. As I remember, it was about three days. Then I went south to examine the other lands in 32-25, and the time mentioned in my letter is what I consumed in the whole trip.

If my letter of January 22, 1904, states that I made a careful examination of the lands in question in 30-23 and found no oil seepages or springs, surface or other indications of oil or minerals of any kind, I guess it is a fact. The report speaks for itself. I had no reason to make a false report.

My examination was made for the purpose of ascer-

taining if there was any oil wells on there; and I found no oil wells, and hence I made that report. I made that report in accordance with instructions.

I did not say that there were no oil seepages. I said that I found no oil seepages. When I said that I found no oil seepages, I meant that as a fact. And I found no surface or other indications of oil or minerals of any kind. That is what I said in my report, I believe.

When I reported on other things besides the existence of oil wells, it might be that I could have found oil seepages in paying quantities, but I did not find any. I reported on these matters because I did not find oil in paying quantities in those other matters. Possibly I included a report on matters **[1271]** that were not covered by my oral instructions. The letters of October 23 and December 10, 1903, did not confine my attention to a report on the presence or absence of oil wells merely, but my verbal instructions did. These instructions were given to me as I have said by Mr. Pollock, who was chief of our field service and who is now dead. They were given to me prior to the receipt of these written instructions to make this particular examination.

In making my examination of 30-23, I had a special letter of instructions from the Assistant Commissioner of the General Land Office, Mr. Fimple, who was a superior officer to Mr. Pollock, and this letter was received subsequent to my talk with Mr. Pollock. In making this examination of the Elk Hills I think

I went first on Sec. 29, although I cannot remember exactly. I do not remember where I went the first day, or the second, or third or fourth day. I think that on the first day I drove out there and kind of looked around to find a road that would carry me into the hills. We did not go to the same place every day. I did not get over very much of it because it was too hilly. Finally I found a place where I could look over practically all of the township. There was no development there at that time, that I could see. I don't think that I made any inquiries concerning this land, but Mr. D. W. Maddux who accompanied me may have told me something about it.

I came to Washington a week ago Saturday and since my arrival I have looked over my reports and have discussed the matter with Mr. Mills and with Mr. Flocker.

I am a son of Thomas Ryan who was Assistant Secretary of the Interior under President McKinley. My father is living now and is still in the government service connected with the Interior Department.

I remember making an examination of lands embraced within the withdrawal order prior to January, 1904, which I was [1272] informed by the Commissioner of the General Land Office was being applied for by the Southern Pacific Railroad Company, but I do not remember the description of the land. I think it was in the McKittrick District. I also think I made an examination of some land in T. 1 South, R. 20 West, San Bernardino Meridian sometime in 1903. This examination covered four or five other town-

ships and it took me ten days or two weeks to make it. In making this examination I searched for oil seepages, oil springs and surface indications of oil or minerals of other kinds. I made a report on this township but did not keep a copy of it.

It was my purpose to make correct reports of my observations and I had no reason for doing otherwise in any case. I don't believe I would know a gas blow-out if I would see it.

REDIRECT EXAMINATION
OF
EDWIN C. RYAN

If on Township 30 South, Range 23 East, I had found oil springs which were not producing oil in paying quantities, oil seepages which were not producing oil in paying quantities, and oil wells there which were not producing oil in paying quantities, I think I would have used the same language in my report on that township, as I found no oil wells nor seepages of oil in paying quantities, and that was my criterion, and I think I would probably have used the same language in the report. It would have been a question with me of finding oil wells, oil springs, or oil seepages producing oil in paying quantities before I would have classified that land as mineral. As I stated before, my criterion was oil in paying quantities. I made no extensive examination of the lands; I did not go over very much of the land. I just looked along the road, as my instructions did not require me to make a thorough and minute investigation of the land. In my report of March 22, 1904, I got most of

my data [1273] from a map. The language used by me in these reports, namely: "Oil seepages, oil wells, oil springs and surface indications which would tend, in my opinion, to warrant lands being classified or not classified as mineral lands," was a kind of stereotyped form that I used. I find it running through all my reports.

RECROSS-EXAMINATION
OF
EDWIN C. RYAN.

I think probably I used that as a kind of stereotyped form. In my report of March 22nd I was making a general report, and did not think it necessary to use that form. In my report of March 22nd I discussed at length the presence or absence of wells, and in doing that I was following the letter of instructions from Mr. Pollock as I understood them, but did not use the stereotyped form that I was accustomed to use. I understood definitely from Mr. Pollock that the only thing I was to report on was whether or not I found oil in paying quantities, and that is all I was looking for.

The mere fact that in my general report of January 22, on the lands including these involved in this suit I did not mention wells or "oil in paying quantities" at all, was just an omission, I guess. I should have mentioned wells.

My instructions I think will state what I was to do. They are in evidence, aren't they?

In making the examination of 30-23 I had a special

letter of instructions from the Special Commissioner of the General Land Office,—Mr. Fimple; and I think in that same letter there were other lands included. Mr. Fimple was a superior officer to Mr. Pollock.

During the time I was in California there were a number of special agents of the land department engaged in making an examination of the lands in various portions of the state. Some **[1274]** of these men were located in Los Angeles as early as 1901 and 1902. We had no general field division when I first went to Los Angeles but it was established, I think, in 1904 with headquarters at Los Angeles and I was put in charge and remained in charge of it until 1907. During this time I probably had four or five men working under me. **[1275]**

ERWIN W. OWEN, a witness called and sworn on behalf of the plaintiff, testified as follows:

DIRECT EXAMINATION

I reside at Bakersfield and am the son of the late Josiah Owen. My father died on December 19, 1909. He was a geologist and mineralogist and from 1902 until the time of his death he was employed by the Southern Pacific Company or the Southern Pacific Railroad Company, or by both, in their Geological Department. He was also employed during that same period by the Kern Trading & Oil Company. He was employed by these several companies as a geologist. He was first employed by the Southern Pacific Railroad Company in the latter part of 1898 or the early part of 1899 in Old Mexico. At that time he was

living at Eagle Pass, Texas. He had prosecuted his work as a geologist for thirty-five years before entering the employ of the railroad company and he got his training in the hills, together with what reading he could do. He never took any course in geology. After he entered the employ of the company in Mexico, he went to the state of Oregon prospecting for coal. I don't know which company he was doing the work for, but it was the Southern Pacific interests. After he left Oregon he went to San Francisco, still in their employ. While my father was in the employ of the Southern Pacific Railroad Company or the Southern Pacific Company, I would say from certain papers in my possession, that he reported to Mr. E. T. Dumble, with whom I am acquainted. Mr. Dumble was the Consulting Geologist of the Southern Pacific Company or the Southern Pacific Railroad Company. I know Mr. Dumble's handwriting. I have had correspondence with him. I was appointed administrator of my father's estate, and from his desk at his home in Los Gatos, California, I took possession of certain papers and letters belonging to him and they have been in my possession ever since and they **[1276]** are in the same condition now as they were when I took them. The following letter, marked plaintiff's exhibit 4H, was amongst those papers, and it reads as follows:

"Southern Pacific Company, E. T. Dumble, Consulting Geologist, Houston, Texas. P. O. Address: 1306 Main Street.

Houston, Texas, Sept. 11th, 1902.

J. Owen, Esq.,

San Francisco, Cal.

Dear Sir:

I wired you this morning to Medford to go to San Francisco at once to confer with Mr. Kruttschnitt about the oil situation in California.

In order that you may have the general geology of the region at hand I send you the enclosed map, section and notes. I think it will save you time to have it at hand.

With best wishes

Yours very truly

E. T. Dumble."

(Counsel for plaintiff here offered typewritten maps and notes which accompanied the above letter and which are marked plaintiff's exhibits 4H-1 and 4H-2, respectively. The notes, exhibit 4H-2, read as follows:

"The Kern river and McKittrick oil fields are different in every particular. The oil at Oil City is in a heavy bed of sand containing more or less clay in irregular masses. This bed seems to underlie the entire region, sloping very gently to the northwest, so that wells may be sunk anywhere within an area of several thousand acres with a certainty of striking oil.

The McKittrick field, however, shows a very sharp anticlinal structure and is confined to a comparatively

narrow line along its crest. I think there can be little doubt that the oils belong to entirely different series of deposits, that at **[1277]** McKittrick being in older beds than those of oil city.

At time of my visit the Co. had two sets of wells at Oil City. The first group of more than 20 wells is located on the river side of section 3 and the second along the north line of the same section and opposite those of the Imperial Oil Co. on Section 33. Only one well of this group was producing when I was there.

At McKittrick there were 9 wells of which 7 were producing. Another was being bored on Section 15.

From the enclosed map and pencil section you will see the conditions I found there.

In sinking wells the clay appears to exist in large lenses in the coarse granitic sand you will find outcropping on the bank of the river near where first indications were found. I do not remember thickness of oil sand, but it is my understanding that it is not safe to put wells down at the rate of more than one to each acre. That is a pumping well is supposed to drain the sand for 100 feet or more on every side.

Treadwell claims that the pumps in use are a patent of his machinist also that his rotary for pumping oil to tanks is the best possible arrangement.

The fact of the anticlinal structure at McKittrick is clearly shown in a ravine south of the hot springs where the bath house is or was. I went down and looked at it.

I suppose Mr. Kruttschnitt will explain just what

he wants. If not I understand that he wants you to get at the facts regarding the field, the number of wells drilled and drilling, and what it is costing to do the work, what the wells are producing and what they can be made to produce, whether the work is being done right or in a slipshod way and how to better it, and to learn what you can about the general condition of affairs. I suppose he will give you a list of the Companies properties including those they operate themselves and those they have leased to others. If he does **[1278]** not it will be well to ask for it. I suppose this will all be preliminary to our taking full charge later.

They still have me hustling here, running to one place and another in Texas and Louisiana so I see no likelyhood of getting away immediately.

I think you will be able to get all the facts necessary. When you do and make your report, be sure to have it typewritten and keep a carbon copy."

The pencil handwriting on the second sheet of this paper, I think, is the handwriting of Prof. Dumble, and that on the third sheet of the same document, in pencil, is in the handwriting of my father, J. Owen. The papers I refer to consist of three papers marked plaintiff's exhibit 4-I, and are in words and figures as follows, to wit:

LANDS FOR TRANSFER FROM
SOUTHERN PACIFIC RAILROAD COMPANY
TO KERN TRADING & OIL COMPANY

KERN DISTRICT:
Township 29 S., R. 28 E.

N. ½, N. ½ of S. W. ¼, and N. W. ¼ of S. E. ¼, Sec. 3	436.56 acres

McKITTRICK DISTRICT:

Township 30 S., R. 22 E.	
Sec. 1.	857.87
Lots 1, 4, 9 & 10, N.E. ¼ Sec. 11	100.36
Township 30 S., R. 22 E.	
Secs. 5, 9, 15, 23, 25, 33	3912.89
All of Sec. 7 except NW ¼ of NW ¼	590.15
N. ½, N. ½ & S.E. ¼ of S.E. ¼ N ½ S.W. ¼ W. ½ of S.W. ¼ of S.E. ¼ Sec. 17	540.
All of Sec. 21, except W ½ of S.W. ¼ & McKittrick town site	300.
E. ½ & E. ½ & NW ¼ of NW ¼, Sec. 27	440.
N. ½ & SE. ¼ of Sec. 35	480.
Township 30 S., R. 23 E. Sec. 31.	640.38
Township 31 S., R. 22 E.,	
NE. ¼ of Sec. 15	160.
NE ¼ of Sec. 23,	160.
NE. ¼ of Sec. 25	160. [1279]
Township 31 S., R. 23 E.,	
Secs. 5, 7, 9, 15, 21, 23, 25, 27, 29, 33, 35	6396.76
E. ½ of Sec. 17	320.
NE. 1.4 Sec. 35	160.
Township 31 S., R. 24 E.	
Secs. 31 & 33	1312.

MIDWAY & SUNSET DISTRICTS:

Township 32 S., R. 23 E.,		
Secs. 1, 3, 11 & 13,	2564.30	
N. ½ of Sec. 5	320.80	
Township 32 S., R. 24 E.,		
Secs. 3, 5, 7, 9, 11, 13, 15, 17, 19, 21,		
23, 25, 27, 29, 33, 35	10240.	
Township 12 N., R. 24 W.		
Lots 1 & 2, Sec. 25	60.	
Township 11 N., R. 24 W.		
NE ¼, Sec. 1	159.89	
Township 12 N., R. 23 W.,		
Sec. 29, 31, 33	1400.52	acres
Township 11 N., R. 23 W.		
Sec. 3, 5, 9	1287.70	
N. ½ & SE ¼, Sec. 15	480.	

COALINGA DISTRICT:

Township 19 S., R. 15 E.,		
Secs. 1, 3, 5, 11, 13, 23, 25, 31, 33, 35	6400.	acres
(Including leases on Sec. 31)		
Township 20 S., R. 14 E.,		
Secs. 1, 13, 23, and 25		
(Including leases, on each)		
Township 21 S., R. 14 E.,		
S. ½ & NW ¼ of NE. ¼, NW. ¼		
SE. ¼, N. ½ & SE ¼ of SW. ¼	560.	
E. ½ & E. ½ of NW. ¼	400.	
Township 20 S., R. 15 E.		
Sec. 1, 3, 5, 7, 17, 29, 33	4573.76	
W. ½ of Sec. 9,	320.	

NW. ¼ & E. ½ Sec. 19	488.18
W. ½ Sec. 21	320.
N. ½ Sec. 31	328.53

Township 21 S., R. 15 E.

Sec. 3, 5, 17, 19, 21, 27, 29	4661.68
W. ½, Sec. 15	320.
E. ½ of Sec. 23	320.

(In pencil):

Mr. Owen—check this and see if we want any other land or if we should leave any of this off.

(Written in ink):

Town. 21 S—Range 14 E. M.D.M.,

West ½ of Sec 1

E ½ " " 11 [1280]

All S 13 & 23-27-35

E ½ Sec 25 & E ½ of NW ¼

Will add

all of Sec 31-33 & 29 of Town 26 Range 21 E M D M.

(In pencil)

Have examined and approve for lease to K T & O Co. the above lands with additions noted.

J.

Plaintiff's exhibit 4-J is in the handwriting of my father, J. Owen, and the following is a copy:

(4-2-02—200M.) 2 T G 9 A

SOUTHERN PACIFIC COMPANY

Sunset Ogden & Shasta Routes.

Rates quoted by this company are for immediate use unless otherwise stated, and are subject to change without notice, except the printing and

posting of tariffs when law so provides.
Rates named on commodities in carloads will base on full space or weight loading capacity of car, but not less than minimum carload weight as provided in tariffs load 10 per cent above weight capacity marked on car when space permits.

(pencil)

McKittrick, Mar 25, 1903

Professor E. T. Dumble.

Dear Sir

I took up the investigation of the oil field at McKittrick on Feb. 3d. I failed to see Mr. Treadwell he was away from Bakersfield and Mr. Ott was compelled to be away on act of Sickness in his family So I had no data whatever in regard to the occurrence of the oil here I believe however I have been able to correctly locate the fold or anticline upon which most of the oil wells are located although I have been compelled to modify some of my first impressions. I find that the directions of the fold is not uniform **[1281]** and that there appears to be a complete system of folds converging toward the principal upraise of the Dist—known as Siera Diablo Range of Montana These later folds are not exactly parallel to the main Range and no two of them are exactly parallel According to Watts (pencil)—Anderson places it in upper Miocine—the McKittrick Oil Horizon belongs to the Middle Neocene formation I find that the McKittrick Horizon does not belong to the same se-

ries as the center of the principal range and as a consequence only follows along the foothills of the main range and terminates at a point Several miles from the Main range although it appears to enter the main Range on the N W The Sharp Anticlimal fold of the McKittrick oil field appears to terminate a short distance S.E. of Templore but another Anticline belonging to Older rocks takes its place and continues on in the Same direction as evidence that these older rocks wer also an older upraise I find the sands and gravels of the McKittrick Horizon largely made up from the debrise from these older hills— These Older rocks dont appear to be Oil bearing they are probably of Cretaceous age The McKittrick series swings around to the N E and follows the low foothills of the Main range The Oil bearing sands diminish in that direction but Oil will probably be found in the Shales it is represented by cepages The termination of the McKittrick Oil Horizon will be found 100 yds North of the Climax wells at Temblor there wells represent the extreme limit at which Oil will be found in that direction but the Oil Horizon swings around to the East about two miles and then continues in a N W direction The Oil of the McKittrick fold terminates about the center of Sec 1 Town 30 S Range 20 E and from this point S E the crest of the fold passes through or near Sec 6-5-4-10-11-13 and 24 Town 30 S- R-21-E thence through Sec 18-19-20-28-27 and 34 Town 30 S R 22-E and terminates south of Sec. 3 Town 31 S R 22 E the last exposure of oil sands is near the center of Sec 3 last mentioned. See

sketches of field in Town plats There is a change in the direction of the strike of **[1282]** the fold near the center of Sec 34 T 30 S R 21 E from this point it turns due South to the center of Sec 3 as above stated and from the termination of the hills one & ½ mile further South the oil Horizon will be represented in the Monocline of the Midway district The accompanying Sheet or map represents the complex nature of the various folds The fold North of the McKittrick and running nearly parallel passes through Sec 5-9 between 11 & 15 through 13 of Town 30 R 22 This fold exposes the oil sands in several places and in some of the exposures the sands are strongly impregnated with Asph and producing wells ought to be found along this exposure the Asphaltum exndes through the overlaying clays in many places I have marked the Sections most favorably located for oil along these different folds—There is but one oil Horizon in this field and below this Horizon there are 1500 feet of white Slate below which the Slates are Nonconformable and probably belong to another Series of Rock—There are several thousand feet of these Slates or Shales they compose the main Diablo Range are tilted up almost vertical and these in turn rest upon Sandstones of great thickness which are exposed above Temblor Ranche but at this place the Shales below the oil Horizon are not seen on the east side of the main upraise but are exposed on the west side- At the East side, North East of Temblor the Oil Horizon rests directly upon these massive sands In the direction of Midway I find that the McKittrick

fold flattens out in the valley but other hills further on in the same direction would indicate that it may expend to near the Kern Lake The Midway Oil sands belong to the Same Horizon as the McKittrick Oil Sands This Horizon only extends into the foothills of Mt. Diablo Range a short distance and from Sec. 6 to Sec. 27 Town. 31, Range 22, the outcrop forms a semi circle along the foothills and are well exposed, forming in many places a chain of low sandy hills that can be distinguished for several miles by their green verdure **[1283]** and dark color, caused by the sands absorbing more moisture and bearing more vegetation. The following Section was, seen on Sec. 17 commencing at Nonconformity of Series (see on 28) below the oil sands and coming upward to the top of the Oil Horizon—

Section of Oil Sands & Rocks below

White Slate	1500 ft.	
Slate Breccia	6 ft.	6
Coarse white Granite Sand	50 ft.	50
White Slate	1.25 ft.	125
Hard yellow slate Breccia	6 ft.	6
White porous loose sand	100 ft.	100
White and yellow Slate	15 ft.	15
Yellow very loose coarse Sand	30 ft.	30
White Slate	150 ft.	150
White Coarse Sand	35 ft.	35
White Slate and yellow Clay	40 ft.	
	oil sands (pencil)	517 ft. sands

This makes the Oil Sands proper 517 feet thick but they thin out perceptibly in a N West direction and thicken up in a S E direction until at one place there is an exposure of 1000 feet or more and one peculiarity of the thickest beds is that in many places some of the beds are nearly wholely composed of Granite Boulders from small pebbles to one 12 ft. long by 5 by 6 weighing Several tons It is useless to speculate how they got there but it appears incredible that these immense Boulders could have been brought a long distance by water This Sand or the upper beds of it are the sands that furnish the oil at Midway There is but this one oil Horizon in this Series of rocks although near Temblor Oil has been struck in the Slates and the sands of this (Mc K Horizon) appear to thin out in a N W Direction By reference to sketch No. 3 it will be seen that there appears to be some relation between the Strata penetrated in the well of the 1901 Co in Sec 34-T-31-S-Range 22 E The Section accompanying the well Section was taken on Sec 17-T-31 S-R 21 E a distance of nearly or quite 10 miles— None of the sands where they terminate on the mountain side are oil bearing but are a very loose friable sand that will crumble by its own weight I See no reason why these sands should not be found oil **[1284]** bearing from a mile or so from this outcrop on the mountain side to where the productuve wells have been drilled There appears to be an accumulation of something like 2200 feet of sediments above these sands There has been several wells drilled between the 1901 Cos wells and the outcrop of sands mentioned

but from the best data I can obtain none of them entered the Sands nor was any of them drilled deep enough to penetrate them hence their failure to find oil In my opinion this is a splendid field for the investment of Capital but the Investors should understand that they must expect to drill to a depth of 2200 feet or 2500 feet to penetrate the oil sands— At Midway these sands are struck from 1000 to 1200 feet and furnish some good wells Midway is only one mile or a little more from the sand outcrop The Sand outcrop is not exposed west of McKittrick on the Mountain side it appears as though later deposits extended further up the side of the mountain and covered the sands This must represent a gradual sinking of the Surface during the deposition of these rocks I have traced the outcrop of the Oil Horizon all the way to Sunset Oil field and find that there is but the one Oil Sand and I believe it will be possible to trace the same Horizon to the Kern River fields There are several reasons for believing that they all belong to the Same zone

Respectfully

The pencil notations on that exhibit were made by my father, J. Owen. (Witness is now shown a carbon copy of plaintiff's exhibit 4-J.) This carbon copy of plaintiff's exhibit 4-J seems to have been in my father's handwriting. The reading of the first page is about the same. This letter is marked plaintiff's exhibit 4-K. The next to the last sheet of exhibit 4-K is in J. Owen's handwriting, as also is the last sheet. When

my father [1285] was in Texas, I remember that it was his custom, he not being a very good writer, to do his writing in his own handwriting and then have it typewritten. The signature, "J. Owen", on exhibit 4-K is my father's hand-writing. (It was here stipulated by counsel that the yellow sheets which constitute plaintiff's exhibit 4-J are the regular letterheads of the Southern Pacific, the regular form used at that time by the Southern Pacific Company.) I have here, in the handwriting of my father, a certain report entitled "Lands not Oil". It is dated July 6, 1905, and the entire paper is in my father's handwriting. This paper is now marked plaintiff's exhibit 4-L, and is in words and figures as follows:

NOT OIL LANDS

July 6, 1905

The accompanying list of lands have been carefully examined for Oil and Coal and no indication of either has been found upon the Land and there location makes it very probably that they do not contain oil.

Yours truly

J Owen

(Reverse side)

Prob. Oil Lands.

	Sec.	T	R	MDM	Acres
All	17	17S	13E	"	640
"	19	"	"	"	640
"	19	16S	14E	"	639
"	5	25S	17E	"	662.52
Fr. S½ of NE¼; S½ of Lot 1	"	"	"	"	

	Sec.	T	R	MDM	Acres
S½ of Lot 2; Lots 4-5-10		"	"	"	
S½ of Lot 9; SW¼ of SE¼	7	"	"	"	353.05
Lots 6-7-8; N½ of Lot 9	7	"	"	"	153.15

[1286]

LANDS EXAMINED AND NOT CONSIDERED
OIL LANDS

	Sec.	T	R	MDM	Acres
" SE¼ & S½ of SW¼	1	16S	13E	"	240
" NE¼ of SE¼; S½ of SE¼					
" SE¼ of SW¼	9	"	"	"	160
All	11	"	"	"	640
"	13	"	"	"	640
"	15	"	"	"	640
Fr. S½ of NE¼; NE¼ of NE¼	17	"	"	"	120
" SE¼ of NW¼; SE¼; SW¼	17	"	"	"	360
All	19	"	"	"	635.20
"	21	"	"	"	640
"	23	"	"	"	640
"	25	"	"	"	640
"	27	"	"	"	640
"	29	"	"	"	640
"	31	"	"	"	639.20
"	35	"	"	"	640
Fr. NE¼ (lots 1-2-6-7)	5	17S	13E	"	198.85
" NW¼; SE¼; SW¼	5	"	"	"	518.95
All	7 (probably a mistake)				269
All "C"	9	17S	13E	MDM	640

	Sec.	T	R	MDM	Acres
Fr. N½ & SW¼	7	16S	14E	"	478.40
All	9	"	"	"	640
Fr. SW¼	11	"	"	"	160
" NW¼	15	"	"	"	160
" SW¼	15	"	"	"	160
All	19	"	"	"	639
"	21	"	"	"	640
Fr. E½	23	"	"	"	320
				April 5, 1899	
Fr. NW¼ & S½	27	16S	14E	MDM	480
All	29	"	"	"	640
All	31	"	"	"	640.30
"	33	"	"	"	640
Fr. NE¼; SE¼; & SW¼	35	"	"	"	480
					[1287]
All	1	17S	14E	"	638.62
"	3	"	"	"	673.69
"	5	"	"	"	709.40
"	7	"	"	"	642.12
"	9	"	"	"	640
"	11	"	"	"	640
"	13	"	"	"	640
"	15	"	"	"	640
"	17	"	"	"	640
"	21	"	"	"	640
Fr. N½; N½ of SW¼	23	"	"	"	400
" S½ of SW¼; SE¼	23	"	"	"	240
All	25	"	"	"	640
"	27	"	"	"	640
				April 5, 1899	

	Sec.	T	R	MDM	Acres
Fr. NW¼	1	25S	17E	MDM	158.73
Fr. SE¼ & SW¼	9	"	"	"	320
" NW¼; W½ of SW¼; NE¼ of SW¼	11	"	"	"	280
S½ of SE¼; SE¼ of SW¼	11	"	"	"	120
SE¼	13	"	"	"	160
NW¼	13	"	"	"	160
All	15				640
Fr. NE¼ & SW¼					
All	5	"	"	"	662.52
Fr. S½ of NE¼; S½ Lot 1		"	"	"	
Fr. S½ of Lot 2; Lots 4-5-10		"	"	"	
Fr. S½ of Lot 9; SW¼ of SE¼	7	"	"	"	353.05
Fr. Lots 6-7-8; N½ of Lot 9	7	"	"	"	153.15
" SE¼ & SW¼	9	"	"	"	320
" NW¼; W½ of SW¼; NE¼ of SW¼	11	"	"	"	280
S½ of SE¼; SE¼ of SW¼	11	"	"	"	120
SE¼	13	"	"	"	160
NW¼	13	"	"	"	160
All	15	"	"	"	640
Fr. NE¼ of SW¼	17	"	"	"	40
Fr. N½ of SE¼; S½ of NE¼	17	"	"	"	160
" W½ of NW¼; NW¼ of SW¼	17	"	"	"	120
NE¼; SE¼; Lots 1-2-					

	Sec.	T	R	MDM	Acres
9-10	19	"	"	"	640
Lots 7; S½ of Lot 8	19	"	"	"	56.80
All	21	"	"	"	640
Fr. NE¼; NW¼; NW¼ of SW¼	23	"	"	"	360
" NW¼ of NW¼	27	"	"	"	40
" N½	29	"	"	"	320
" S½ Lot 2 Lots 4-5-7	31	"	"	"	182.35
" Lot 1; N½ of Lot 2 Lot 3 & 5					
" NW¼ of SE¼	31	"	"	"	257.49
" NE¼	1	24S	18E	"	161.21
" NW¼	1	"	"	"	163.78
SE¼	1	"	"	"	160
" SW¼	1	"	"	"	160
All	9	25	18	"	640
					[1288]
All	1	31S	24E	"	640
"	3	"	"	"	640
"	5	"	"	"	640
"	9	"	"	"	640
"	11	"	"	"	640
All	23	"	"	"	640
"	29	"	"	"	640
"	35	"	"	"	640

(Reverse side)

86.40
100

864000

4480
500

2,240.000

Not Oil Lands

* * *

Witness now produced certain schedule of lands, together with a letter from Mr. Owen to Mr. Dumble dated July 6, 1905, entitled "Oil Lands and Probable Oil Lands", which is received in evidence and marked plaintiff's exhibit 4-M, and is in words and figures as follows:

OIL LANDS

July 16th 1905

Professor E. T. Dumble

Dear Sir:

I transmit herewith report on S P Lands, beginning with Town 16 S Range 13 E M. D. M. and including all lands not previously reported as far south as and including Town 25 S Range 18 E M. D. M. in accordance with plan adopted in previous reports I have included all sections where parts of sections are considered Oil land and the rest doubtful

Yours truly

J OWEN [1289]

PROBABLE OIL LANDS

	Sec.	T	R	MDM	Acres
All	17	17S	13E	"	640
"	19	17S	13E	"	639
"	23	22S	15E	"	640
" E½	17	22S	15E	"	520
"	21	"	"	"	640
Fr. NE¼ of	5	24S	18E	"	177.89
(*In Pencil*) W½ of SE¼ ..	24	17			80

	Sec.	T	R	MDM	Acres
Fr. SE¼; SW¼ of NW¼; SE¼ of SW¼; W½ of SW¼	5	"	"	"	320
NE¼ of SW¼	5	"	"	"	40
" NE¼; NW¼; E½ of SE¼					
Fr. W½ of SW¼	7	"	"	"	495.52
E½ of SE¼	7	"	"	"	80
E½ of SW¼	7	"	"	"	80
NE¼ & SW¼	9	"	"	"	320
SE¼	15	"	"	"	160
NE¼	17	"	"	"	160
N½ of NW¼; SE¼ of NW¼ SE¼; NE¼ of SW¼	17	"	"	"	320
SW¼ of NE¼; NW¼; NW¼ of SE¼; S½ of SE¼	21	"	"	"	320
SW¼	21	"	"	"	160
SE¼	23	"	"	"	160
S½	25	"	"	"	320
SW¼ of NW¼; NW¼ of SW¼					
S½ of SW¼	27	"	"	"	160
E½ of SE¼; NE¼ of NW¼	27	"	"	"	120
Fr. SW¼ of———	29				160
SE¼———	31				160
SW¼ of SW¼	35	"	"	"	40
NW¼ of NE¼; S½ of					

	Sec.	T	R	MDM	Acres
NE¼ NW¼					200
NW¼ of SE¼; N½ of SW¼	35	"	"	"	80
N½ of NW¼	1	25S	18E	"	79.69
Fr. SW¼	3	25S	18E	"	160
S½ of NW¼ & NW¼ of NW¼	11	"	"	"	120
SW¼ of NE¼	11	25S	18E	"	40
Fr. Also NE¼	9	"	"	"	160
N½ & SE¼	7	31S	24E	"	480
All	27	22S	15E	"	640

(On reverse side, in pencil)

PROBABLE OIL LANDS TOWN 24S RANGE 18E

Sec. 7—NE¼; NW¼; E½ of SE¼ 495.52 acres

Sec. 7

Sec. 7—W½ of SE¼ and E½ of SW¼

Sec. 9—T24 SR18E NE¼ and SW¼

Town 24 SR18E Sec. 17 N½ of NW¼; SE¼ of NW¼ SE¼; NE¼ of SW¼ 320 acres

[1290]

Sec.21—SW¼ of NE¼ NW¼ and SW¼ 480 acres

Sec. 27—SW¼ of (Balance of line not distinguishable) S½ of SW¼ 160 acres

E½ of SE¼ NE¼ of NW¼ 120 acres

Sec. 35—NE¼ of NE¼; NW¼; W½ of SW¼; SW¼ of SW¼ 320 acres

NE¼ of NE¼; S½ of NE¼ NW¼ of SE¼ 160 acres

Town 24S R17E Sec. 1 West ½ of SE¼ 80 acres

Town 25S R18E Sec. 11 NE¼ of SW¼ 40 acres

(A plat of Township 30 South, Range 22 East, is now offered in evidence and marked plaintiff's exhibit 4-N. The hand-writing on this exhibit is identified by this witness as being mostly his father's handwriting.)

The witness here identified letter dated July 20, 1905, addressed to Professor E. T. Dumble, and which is marked plaintiff's exhibit 4-O, and which is in words and figures as follows:

7564

July 20, 1905.

Professor E. T. Dumble,

Consulting Geologist, City.

Dear Sir: I herewith hand you a statement of all productive oil lands divided as first class productive oil lands, second class productive oil lands, and third class oil lands; also, lands designated as first class probable oil lands, and second class probable oil lands.

First class productive oil lands comprise those sections where actual development work has proven the land to be good oil territory. The second class productive lands comprise those sections which adjoin productive sections, and contain the oil horizon with all surface indications as far as can be seen indicating the presence of oil on the land. The third class lands are those in the immediate vicinity of the second [1291] class lands and contain the oil horizons but no development work has been done upon them.

The first class probable oil lands are lands where

the oil horizon has been traced through them or where surface indications give promise of good productive lands. The second class probable oil lands are those sections which contain the horizons of the first class probable lands and adjoin them or are upon an anticline where the indications for oil or asphaltum are found.

In previous reports on oil lands I included all of sections where a part of the section contained oil and the balance was doubtful. In this report I have only included the sections and parts of sections actually upon the oil horizons. Therefore, this report will not exactly correspond to the plats of oil lands given in previous reports.

The total number of acres comprised in all classes of productive and probable oil lands are 91,311 acres with an aggregate value of $17,326,800.

Yours truly,

OR
CMR

(Witness here identified a letter dated October 9, 1902, from Mr. Owen to Mr. Kruttschnitt, and which is marked plaintiff's exhibit 4-P, and which is in words and figures as follows, to wit:)

Medford, Oregon, Oct. 9th, 1902.

(in pen)
Mr Kruttschnitt

Sir:

At Mr. Worthington's request, I sent a supplement to my report on the Coalinga oil field, giving a sketch of the [1292] out-line of the oil territory

owned by the S. P. Co., and such data as I possess in regard to the topography of the country between Coalinga and the center of the oil district that would give an idea of the feasibility of building a switch or branch line to connect the oil territory with the R. R.

Section 7, Township 20, S. Range 14 East will be as near the center of the oil field as it will be necessary to build a branch. The dotted line (on the plat enclosed) direct from Coalinga to Sec. 7, passes over a very level plain with a slight upgrade of 300 feet from Coalinga to the center of this Section. This represents a diagonal line across four sections.

Little more work will be required, than to surface the road-bed and bridge one or two dry branches. There is an old coal road-bed (now abandoned) graded from Coalinga to section 26-T. 20 S. R. 14 E. (see sketch). This graded road-bed runs for most of the distance through S. P. Co. lands. I dont know who are the owners of it. If the track was re-laid, to near the line of Section 26, then carried across to Section 7, as above mentioned, it would give an out-let for the oil territory on Section 26 and 23 and afford the tenants of the other R. R. lands the same facilities they would obtain if the line was built direct from Coalinga to Section 7. Should a line be built direct from Coalinga to Section 7, it will benefit the tenants on Section 23, but very little. There can be but very little difference in the amount of work on two routes and the

circular route via Section 26, will for most of the distance pass through or contiguous to oil territory, much of which is yet undeveloped.

The shaded Sections on the plat represents the Company's oil lands. The South Eastern extremity of the oil field has not been determined and other Sections besides those colored, may yet be included in the oil territory.

Respectfully,

(In ink) J Owen [1293]

(At this point in the testimony of this witness, the letter marked "Plaintiff's Exhibit 4-Q was identified and received in evidence.)

Q. Have you some reports there on reserved lands included in certain townships?

A. Yes, sir.

Q. Just examine those and state whether you found them in the same condition, attached, as they are now.

A. I did.

Q. Have you examined to see whether Township 30-23 is contained among those papers?

A. I have.

Q. And is it, or not?

A. It is not.

Mr. Mills: Let this be marked, for identification, 4 R.

The report last referred to is marked "Plaintiff's Exhibit 4 R—LL."

Mr. Mills: These appear to be undated, Mr. Lewers, but we offer them in evidence.

Q. By Mr. Lewers: Mr. Owen, do you know when this list was prepared?

A. I do not.

Q. Did you ever see it before the time you found it in your father's papers?

A. I did not.

Q. Was your father anywhere in the vicinity of McKittrick up to the time of his death?

A. Very frequently.

Q. And do you know whether he made any examinations of land [1294] in there in 1907, '08, and '09?

Mr. McCormick: That is objected to, on the ground that this is not cross-examination and that has nothing to do with the question whether or not this document is admissible.

A. I am certain that he did.

Q. My Mr. Lewers: And, so far as you know, this report might have been made in 1907, 1908 or 1909?

A. I have no way of telling when that was written at all, and could not state when it was made.

Q. Your father had some interests of his own in that vicinity in the later years of his life, did he not?

A. East of the McKittrick field a few miles; yes.

Mr. Lewers: We object to the introduction of the document, first, on the ground that it appears that it does not concern any of the lands in controversy; second, that the document is unaccounted

for as to when it was prepared, and, so far as appears from the face of it, might have been prepared long after the patent was granted; and, next, on the ground that it in no way appears to have been communicated to any officer or agent of the grantee company.

Mr. Mills: I will read this exhibit into the record, and let it be marked Plaintiff's Exhibit 4 R.

The report last referred to and offered in evidence is marked "Plaintiff's Exhibit 4 R—L.L.", and is as follows:

Town 30 S. Range 22 E M D M

The anticlinal fold mentioned as running through Town 30 S Range 21 E. continues through this Township. This anticline is not as sharp as the McKittrick anticline and as a consequence the area of available oil sands are much more than the McKittrick fold.

This anticline enters the Township near the N.W. corner of Sec. 6 and leaves it near the corner of Sec. 25. Two producing oil wells have been drilled on Sec. 6 on this anticline and Bituminous **[1295]** deposits are found in numerous places along the anticline. In addition to the above mentioned Horizon The McKittrick Oil Horizon runs through this Township. It enters the Township on the South near the center line of Sec. 34 runs ½ mile due north there turns in a N W direction runs diagonally through Sec 28 And to the center of Sec 20 where it turns to a more westerly direction and passes out of the Township near the N W corner of

of the S W ¼ of the N W ¼ of Sec 19 This anticline is a very sharp fold the Strata dipping at various degrees ranging from 19° to 82°.

There appears to have been a lateral thrust which left the fold with the appearance of having been broken and in at least one place there is a thrust where one end of the fold laps past the other end making it somewhat difficult to follow the apex of the fold

TOWN 30 S RANGE 21 E

There is but one section of land owned by the S P Co in this town which can be considered as probable oil land. There is an Anticlinal fold running through this Sec from N W to S E wells have been drilled upon this Anticline which are represented to produce as much as 75 bbls per day The Sands producing the oil along this Anticline are entirely distinct and separate from the Sands of the McKittrick anticline The latter oil Sands are below a shale Horizon which is 1500 or 2000 feet thick while the sands on Sec 1 of this Town are above the shales above mentioned.

TOWN 24S RANGE 18E

The Anticlinal fold which runs just north of Dudley extends from Sec 7 on the west line of the Town Diagonally across the Township to near the S E Corner of Sec 34 This Anticlinal fold brings the Buttonbed Horizon near enough to the Surface to be reached with the Drill as there is but about 1000 ft of these Shales where in place it is quite

probable that much of this has [1296] been carried away by Erosion There is a fair probability that this land is oil territory but unfortunately most of the Valuable portion of it has been Sold for grazing land

TOWN No 23 S RANGE No 17 S

The Oil City or Eocene Horizon enters this Town near the middle of the west line of Sec 7 and runs diagonally across the Township and disappears between the Miocene Shales near the middle of Sec 21. The Miocene Shales lap over onto the Cretaceous and form an anticlinal ridge extending S E This anticlinal ridge finaly terminates as an anticline in the Monterey Shales but extends through the balance of this Town. Oil Wells ought to be obtained along near the outcrop of the Eocene beds and the Button bed Horizon ought to be reached through the Monterey Shales along this anti-cline.

TOWN NO. 24S RANGE 17 E

The Anticlinal fold in the monterey Shales runs through the center of Sec 1 of this Town from N W to S E The Button bed Horizon ought to reach these Sands beneath the Monterey Shales The Pliocene Sands are exposed in the Sunflower Valley in this Town but there is no evidence that they are oil bearing

TOWN NO. 25 S RANGE 18 E M D M

The Dudley Anticline enters this Town near the N W corner of Sec 2 and extends diagonally across

to the S E corner of Sec 24 This Anticline is probably Oil territory Tar Springs occur on Sec 24 and prospect wells drilled are said to be able to produce 15 bbls of oil per day. All S. P oil lands in this Town were sold except 80 acres. **[1297]**

TOWN 32 S RANGE 24 East

The reserved sections in this Township are along and near the apex of a short anticline on Sec 11 near the west line there are extensive deposits of Asphaltum strongly impregnated with crystals of Sulphur The indications for oil are good No development work has been done nearer than the Midway fields

TOWN No. 32 S RANGE 23 E M D M

The reserved Sections in this Township are located upon the Midway Monocline and are very probably good oil territory

Very favorably located and may be considered as undoubted oil territory.

TOWN 31S RANGE 22 E M D M

The small amount of probable oil land owned by the S. P. Co. in this Town lays along the lower edge of the Midway Monocline and near the valley There are no Surface indications of oil upon these tracts of Land but they are located upon the Oil Horizon which furnished the Oil at McKittrick and also at Midway

TOWN 31 S RANGE 23 East M.D. M.

The reserved Lands in this Township are loaced upon an anticlinal fold across the Valley to the N E

of the Midway Oil Horizon The Sands of the Midway Oil Horizon can be reached upon the Sections reserved at a moderate depth there are no surface indications upon these reserved sections but in other parts of this Anticlinal fold there are extensive Asphaltum deposits indicating the possible presence of Oil in the Sands below. **[1298]**

I have the plat-book which was prepared by my father and kept by him. The first leaf of the plat-book is here marked plaintiff's exhibit 4-S. I have examined it carefully and the script notations and figures in the plat-book, wherever they occur, are in my father's handwriting. During his lifetime, my father kept this book with him in a little handbag that he carried when he traveled wherever he went. After my father's death, I found it in his handbag. Sometime this spring, Mr. E. T. Dumble made an examination of the papers that have been offered in evidence here. I think I placed all my father's papers before Mr. Dumble and he examined all that he wanted to. I also exhibited these papers to Mr. Bennett and Mr. Crawford. All these gentlemen examined these papers in my presence and they have never, to my knowledge, been seen by anyone else. During my father's lifetime I was entirely in his confidence. I have discussed with him various fields and also prospective fields in Kern County and around Coalinga and other fields in the state concerning their mineral bearing character. Very frequently during the last few years of his life we talked the matter over. We seriously contemplated the organization of a little company

where we could use my energy and his knowledge and acquire some of the various lands in the state. To a certain extent, I have heard my father pass upon the mineral bearing character of the lands in controversy in this suit in Township 30 South, Range 23 East. Our discussions were principally with regard to other minerals; but I have heard him state as to the oil bearing possibilities of these lands. He thought it was a good gamble; and that there was a chance of oil being there, but that it was deep. My father owned stock in a company owning or claiming the lands in the adjoining township, to wit: Township 30 South, Range 24 East, and he frequently expressed an opinion to me as to the presence of mineral on those lands. He was absolutely certain that Township 30 South, 24 East, and **[1299]** 30 South, 23 East, contained large bodies of Fuller's Earth that were valuable; in fact, he had no doubt about it. He was certain on that point—that there was a great body of Fuller's Earth through the Elk Hills. By the Elk Hills I mean that group of hills beginning about six miles east of McKittrick and extending to the Buena Vista Lake and including the land in controversy in this suit. At the time of my father's death he had in his possession passes over the Southern Pacific lines and over the lines reaching to the west side and, I think, a pass over the Santa Fe. I sent these passes back to the companies after my father's death. There was quite a stack of them. There might have been half a dozen or more; there might have been a dozen.

Mr. McCormick—You don't deny, do you, that Jo-

siah Owen was the assistant geologist of the Southern Pacific Company, under Mr. Dumble.

Mr. Lewers—"Southern Pacific"; yes. I never have.

Mr. Mills—Do you deny that he was reporting on lands for the Southern Pacific Railroad Company?

Mr. Lewers—I most emphatically do, because he was not.

Mr. Mills—Do you admit at this time that Mr. Dumble was consulting geologist of the Southern Pacific Company?

Mr. Lewers—Of the Southern Pacific Company, yes.

Mr. Mills—Was he at any time employed by the Southern Pacific Railroad Company?

Mr. Lewers—Not to my knowledge.

Mr. Mills—You don't deny that he might have, without your knowledge?

Mr. Lewers—Oh, he might have been, but—

Mr. Mills—And the same is true with reference to Mr. Owen.

Mr. Lewers—I believe that is the fact. They were employed in the geologist department of the Southern Pacific Company, **[1300]** a separate and distinct office in every way from the Southern Pacific Railroad Company.

Mr. Mills—And yet they would report to the Southern Pacific Railroad Company?

Mr. Lewers—Never, to my knowledge.

Mr. Mills—In the report to Mr. Kruttschnitt.

Mr. Lewers—If they reported to him he was, as I understand it, an officer of the Southern Pacific Company.

Mr. Mills—He was second vice-president of the Southern Pacific Railroad Company, too, wasn't he?

Mr. Lewers—That may have been. That is all in the record, whatever that may show.

Mr. McCormick—So far as the Southern Pacific Company is concerned, you will stipulate, as matter of record, that Mr. Dumble, from January 1st, 1903, at least until after the patent in this case was issued, was the consulting geologist of the Southern Pacific Company?

Mr. Lewers—I would not want to make that stipulation, because I don't know the dates, Mr. McCormick; but I know that he held that position. When he began I don't know. He holds that position today.

This book, in which pages 44 and 45 are marked plaintiff's exhibits 4-Sa and -Sb, is the one my father carried with him. I first saw the book in January, 1909, and my father died in December, 1909. Whenever my father came out to the fields he stopped at my house and I don't remember his ever being there without the book, as I have seen it on different occasions. I do not know when pages 44 and 45, or any portions of those pages, were made by my father. The blue parts of that map, Section 30, 32-4, and the north half of Section 31, in Township 31 South and 32 south, Range 23 East, represent locations made by the locators of the original Eight Oil Company. I think these locations were made January 1,

1907, if I am not mistaken, but not prior to that [1301] date. The map also represents locations that were made subsequent to 1904, being on Section 28, Township 32 South, Range 24 East, and it is differently colored from the others, being purple and being surrounded by markings of ink. That represented a desert land location made by S. P. Wible and C. F. Haberkern, Father helped to make those locations and was interested in them. That was in March, 1907. I don't know whether he made any additions to that map from time to time except what I have testified to with reference to later locations. There is nothing on the map that indicates the dates when he made any of those marks on that plat, and I am not able to state when any portion of that map was made other than from the evidence that the map furnishes on its face. Section 28, Township 32 South, Range 24 East, which is marked purple, was not purchased for oil land, but it is oil land now. There was a contest, as a matter of fact, made against the desert land entry on the ground that this land was oil land, and subsequently Mr. Wible and Mr. Haberkern and my father voluntarily relinquished their claim that it was a desert land entry. I know now that that was oil land. Referring to exhibit 4-H, which is the letter addressed to my father by Mr. Dumble, dated December 11, 1902,—on the visit that Mr. Dumble made to me shortly after the hearing in this case started, he made comment on that letter. He picked up the letter, read the whole of it through, that is, he

looked at exhibits 4-H, 4-H-1 and 4-H-2, folded them up, threw them aside and said, "That about fixes the date of your father's arrival"—I won't say in the oil fiields," but "in the country." Mr. Dumble at that time did not expressly or impliedly deny the authenticity of these documents and I know he examined all of the papers that were introduced today. I came to California in January, 1909, and that is the reason I never examined this book until January, 1909.

Mr. Mills—We also desire to offer in evidence from this **[1302]** book, near the end of the book, a page headed, "Oil City, Oil Horizon," dated "October 15, 1904", and the following three pages and a half—three pages and a quarter. Also, on the third page from the end of the book, the matter headed, "El Capitan, Genesee & Trouger Lease G 20, May 4th, 1904", and the subsequent pages, and, also, the inside, first cover—whatever matter appears there—and the page directly opposite, at the present time.

Mr. Lewers—No objection.

Mr. Mills—The portions of the plat-book referred to and offered in evidence are as follows: That portion marked "4 Sc", is as follows:

"Oct 15th—04

Oil City Oil Horizon

The oil at this place appears to be at the Base of the Miocene or Eocene in a Bituminous shale with sand strata at the bottom There appears to

be about 600 ft of Bit. shale overlaid by something like 800 ft of sandy clays and sandy strata this lies below the Monterey Shales of the miocene Below the low bit shales in fact 450 ft from the Base is found about 20 ft of Red Brown sand below this is 450 ft shale below this shale below this shale is 75 ft of Brown Sand underlaid by 50 ft Sandy clay under this is 100 ft of Boulder Sand resting upon 1000 ft of clay beds containing Ammonites and Bacalites certainly Cretaceous (*following* Following the Bituminous clays the lowest sec of the Shales from Oil City on the west line of Sec 20 they extend to near the center of this Sec 20 R 29 T 15 E from this point they turn North through the center of Sec 17 also through Sec 8 to near the South line of Sec 5 from here they turn nearly N. W. through Sec 5 and enter the next Town **[1303]**

(cut out)
(Near the S W Corner of Sec 34 runs diag-)
(onally through Sec 33 to near N W corner)
(thence through the S W ¼ of Sec 28 and)
(diagonally through the N E ¼ of Sec 29 and)
(through the S W ¼ of Sec 20 thence through)
(the N E ¼ of Sec 19)

Near the S E corner of Sec 31—Town 18 S R 15 E thence diagonally through Sec 31 N W and enters Sec 25 T 18 S R 13 E near the S E corner and runs Northwest through Sec 25 enters Sec 23 near S E corner enters Sec 22 about the middle of

the N E ¼ of Sec and enters Sec 15 about the S W corner of the S E ¼ and continues as far as I could see in a N W direction Sec 15 was as far as I followed the Horizon It appears to be very regular in its thickness and appears to follow the same Nodular sand stone found at Oil City It is Bituminous through out its entire distance The Average dip is about 35° and it ought to be oil bearing

The Horizon of the Sec 28 Oil Co runs through Sec 29 T 19 S R 15 E near center of Sec thence across the N W corner of Sec 28 enters Sec 21 near the SW corner and runs diagonally through the E ½ of the Sec enters Sec 15 near S W corner runs N.E. to near center of S East ¼ and runs N. W. enters Sec 3 near corner of S E¼ and runs diagonally across to S West corner. Sec 33 T 18 S R 15 E near S E corner and enters Sec 28 near middle of S W ¼ enters Sec 29 near S E corner of N E ¼ and runs (in pencil) diagonally across Sec 20 to N W corner of S W ¼ and diagonally through the N E ¼ of Sec 19 enters Sec 13 T. 18 S. R 13 E from this point it trends more to the North and on Sec 19 a massive Stratum of Talc and Serpentine boulders and gravel takes the position previously occupied by the Oil Sands and either cutting the oil sand out or thorwing it further north This Oil **[1304]** horizon is W of Sec 3 T 19 R 15 Shows but little indication of oil and I doubt if it will pay for development work although a company is drilling a well on Sec 20 Town 18 R 15 E There has been well located about

600 ft North of the Oyster Horizon which at Oil City is 450 ft above the Oil Horizon."

The part marked 4 Sd is as follows:

"May 4th 04 El Capitan Genessee & Producers Lease G 20

Producers Oil Co Wells never operated. Lease forfeited by non compliance with Terms

No record of any sub Lease to Genesse Co Six wells were required prior to Nov 26 1903

Lease G 22 Should complete six wells by Dec 7th 1903 Time to complete first two wells extended to May 28th 1903 this extended time to May 28th 1904 Commercial Oil Co Lease G 23 St Paul Fresno Co Probably forfeited for failure to operate leases 4 wells sunk within time required Contract provided 3 wells each year and if oil is found 3 additional wells shall be sunk each year consent if Co to sub lease was obtained consent of arrangement will probably reinstate the lease as being complied with

Lease G 45 Me Near

Six wells should have been completed by Jan 19 1904 only one completed to date No record of any extension of time for drilling other wells Time extended by Mr. Madden until Aug 15 1903 Time to sink first two wells expires May 15 1904 and time to commence subsequent work commences to run May 15th 1904 Nine months after contract time to commence work. (In pencil) Oil sepages on Sec 5 T 17 (blue pencil) **[1305]** R 12 Just below North New Idra mines."

And the part marked "4 Se", are as follows:

"60.30 American (erasure) J. Owen Los Gatos Cal. J Owen Room 1105 Flood Bldg S F

San Francisco

518 Merchants Exchange Building

S F" [1306]

CROSS-EXAMINATION OF ERWIN W. OWEN

I came to California in January, 1909, and it was after this time that I had these conversations with my father concerning the oil fields. It was also after this time that he expressed the belief that there was a great deal of Fuller's earth in the Elk Hills and stated that it was a gamble as to the oil, and that if it was there it would be very deep.

I had an interest in the Eight Oil Company, just as my father did, and discussed with him the proposed holdings of this company. During such discussion he frequently referred to the note book, which has been introduced in evidence, Exhibit 4 S, I have known him to refer to the plat appearing on pages 44 and 45 of this book, for the purpose of obtaining information for me, but I do not remember having seen him make any entries on that map. He never did tell me that it was a map he had prepared years before.

It was my opinion that he had prepared that map and the other papers in there, during the course of some time; that he had just built that up. I don't think that he had made the map at one time, but

he had, during his examinations, made that map for his own information. If he got any additional information later on he would add it to the map. This continued up to the time of his death.

There are some things on this plat that indicate that they must have been made subsequent to certain dates.

The blue parts of that map, Sections 30, 32-4, and the north half of Section 31, in Township 31 and 32 South, Range 23 East, represent locations made by the locators of the original Eight Oil Company. These were made January 1, 1907, if I am not mistaken, but they were not made prior to that date. It also appears on this map that Section 28, Township 32 South, Range 24 **[1307]** East is differently colored from the others. It is purple and is surrounded by markings of ink. That represents a desert land location made by S. P. Wible and C. F. Haberkern, in which my father was interested. This location was made in March, 1907.

My recollection is that my father carried this book with him whenever he went into the field. There is nothing in this book or on the map that indicates the dates when any of the marks or notations were made on the map.

I find further than in other portions of the book there are notations and plats referring to purely private matters. **[1308]**

LOCATION NOTICES

Mr. Mills—I find, Mr. Lewers, that the record of

mining location notices, as recorded in the office of the County Recorder for Kern County, California, for the years 1899 to 1906, inclusive, are indexed only by reference to the locators or the associations or persons in whose behalf said locations are made, and have therefore requested the Kern County Abstract Company of Bakersfield, California, to prepare from said records and submit for use in this case a memorandum of abstract of said notices, during the said **[1309]** years, from the county books and records of said county in the office of the county recorder thereof, covering each of the following sections of land, to wit: Section 14 to 36, inclusive, in Township 30 South, Range 23 East, M. D. M., and including the lands involved in suit. I am informed that these memoranda have been carefully compared and checked with the original county records of said county of Kern as appears from the books of the county recorder, and that they are true, compared, correct, exact copies of so much of said records as they purport to represent. May it, therefore, be stipulated that the memoranda of abstracts of notices of mining locations for the said descriptions of lands during the said years be received in evidence in this case and read into the record with the like force and same effect as if the county records of the Recorder's Office of the county of Kern themselves were produced and testified from under the oath of the County Recorder of Kern county?

Mr. Lewers—That stipulation is agreeable to us; and, in agreeing to it, we desire to be understood as not offering any objection to the form of the evi-

dence as offered, and we are willing to waive the testimony of the abstractor who prepared the reports which have been referred to, and also to waive the testimony of the County Recorder showing that such records appear upon his books. We do not desire, however, to be understood as admitting in any way that any such locations were actually made, or as waiving any objections that we now propose to make to the introduction of the evidence, these objections being considered as made to the original records themselves as evidence in the case, subject **[1310]** to the form in which they are now offered. Now, do you offer those in evidence?

Mr. Mills—Yes. I now offer in evidence the mining location notices for sections 14 to 36, inclusive, excepting Section 31, of Township 30 South, Range 23 East, M. D. M, including the lands in suit, as appear from the records of the office of the County Recorder of Kern county, for the years 1899 to 1906, inclusive, for the purpose of showing that constructive notice was given to the defendants in this case as early as 1899, and during the entire period before the issuance of the patent, of the mineral character of the lands involved in this suit, and that at all times during those years the said notices were on record in the proper and appropriate public depository of Kern County, California, and accessible at all times to the defendants.

Mr. Lewers—We object to the introduction of the testimony offered, and to each item thereof, on the ground that is purely hearsay; refers to transactions

in which none of the defendants were in any concerned, that the statements contained in the alleged records are purely self serving declarations, made for the benefit of persons other than the defendants; and on the further ground that at the time said alleged records were made there was no statute or law, federal or state, requiring that any location notice be either posted on the ground or recorded in any office; there was no statute or law of any kind making the contents of any such notice that may have been recorded evidence for any purpose in any court; and on the further ground that the fact that the records of Kern county may **[1311]** have set forth in them what purports to be location notices is in no way evidence of any act or thing done upon the ground, or any part of it, inasmuch as the said records were neither authorized nor sanctioned nor required by any law during the time the same purport to have been made. And we do now, for all the reasons herein before stated in this objection, move to strike from the record all of said alleged records; and we make this objection and motion upon the further ground that in the form and manner in which the said testimony is offered, consisting of entries in the books of the county recorded merely, we have been deprived of all opportunity to enquire or cross-examine as to whether, in any instance referred to in said alleged records, any location or discovery or act was done by any individual upon the ground in question.

Mr. Mills—I will now read into the record the mat-

ters last referred to and offered in evidence, as follows: **[1312]**

MEMORANDUM ABSTRACT

of all Notices of Location of Mining Claims recorded in the office of the County Recorder of the County of Kern, State of California, during the years 1899 to 1906, both years inclusive, affecting or in any way relating to Section 14, in Township 30 South, Range 23 East, Mount Diablo Base and Meridian, in the County of Kern, State of California.

Notice of Location	Date Recorded—Mining Records	Book	Page
Pelican Oil Co. No. 25 SE¼	Nov. 9, 1899. Nov. 18, 1899.	18	24
Pelican Oil Co. No. 26 SW¼	Nov. 9, 1899. Nov. 18, 1899.	18	24
Rajah No. 83 NW¼	Dec. 14, 1899. Dec. 15, 1899.	18	296
Rajah No. 84 NE¼	Dec. 14, 1899. Dec. 15, 1899.	18	296
Wagont No. 14 NE¼	Jan. 1, 1901. Jan. 2, 1901.	30	7
Wagont No. 15 NW¼	Jan. 1, 1901. Jan. 2, 1901.	30	8
Wagont No. —— SW¼	Jan. 1, 1901. Jan. 2, 1901.	30	8
Wagont No. 17 SE¼	Jan. 1, 1901. Jan. 2, 1901.	30	9
St. Joseph SW¼	Jan. 24, 1901. Jan. 28, 1901.	27	370

Vista Laguna No. 19 NE¼			
Feb. 16, 1903.	Mar. 6, 1903.	46	482
Vista Laguna No. 20 NW¼			
Feb. 16, 1903.	Mar. 6, 1903.	46	483
Vista Laguna No. 21 SW¼			
Feb. 16, 1903.	Mar. 6, 1903.	46	484
Vista Laguna No. 22 SE¼			
Feb. 16, 1903.	Mar. 6, 1903.	46	485
Elks Range No. 5 NE¼			
Jan. 1, 1905.	Jan. 7, 1905.	54	405
Elks Range No. 6 NW¼			
Jan. 1, 1905.	Jan. 7, 1905.	54	406
Elks Range No. 7 SW¼			
Jan. 1, 1905.	Jan. 7, 1905.	54	407
Elks Range No. 8 SE¼			
Jan. 1, 1905.	Jan. 7, 1905.	54	408

[1313]

MEMORANDUM ABSTRACT

of all Notices of Location of Mining Claims recorded in the office of the County Recorder of the County of Kern, State of California, during the years 1899 to 1906, both years inclusive, affecting or in any way relating to Section 15, in Township 30 South, Range 23 East, Mount Diablo Base and Meridian, in the County of Kern, State of California.

Notice of Location	Date Recorded—Mining Records	Book	Page
Blue Hills Oil Co. No. 1 SE¼			
	Dec. 2, 1899	18	148
Blue Hills Oil Co. No. 5 SW¼			
	Dec. 2, 1899	18	149

Blue Hills Oil Co. No. 7 NW¼				
	Dec. 2, 1899		18	150
Bule Hills Oil Co. No. 8 NE¼				
	Dec. 2, 1899		18	151
Wagont No. 18 NE¼	Jan. 2, 1901		30	9
Wagont No. 19 NW¼				
Jan. 1, 1901	Jan. 2, 1901		30	10
Wagont No. 20 SW¼				
Jan. 1, 1901	Jan. 2, 1901		30	10
Wagont No. 21 SE¼				
Jan. 1, 1901	Jan. 2, 1901		30	11
Santa Cruz SE¼				
Jan. 24, 1901	Jan. 26, 1901		25	473
Georgia NE¼				
Jan. 23, 1901	Jan. 26, 1901		25	474
Eldorado NW¼				
Jan. 23, 1901	Jan. 26, 1901		33	129
Golden West SW¼				
Jan. 23, 1901	Jan. 26, 1901		33	131
Vista Laguna No. 15 NE¼				
Feb. 16, 1903	Mar. 6, 1903		46	478
Vista Laguna No. 16 NW¼				
Feb. 16, 1903	Mar. 6, 1903		46	479
Vista Laguna No. 17 SW¼				
Feb. 16, 1903	Mar. 6, 1903		46	480
Vista Laguna No. 18 SE¼				
Feb. 16, 1903	Mar. 6, 1903		46	481
Potasi No. 2 NW¼				
Jan. 1, 1903	Apr. 20, 1903		31	464

Notice of Location	Date	Recorded	Mining Records Book	Page
Potasi No. 3 SE¼	Jan. 1, 1903	Apr. 20, 1903	31	464
Potasi No. 1 NE¼	Jan. 1, 1903	Apr. 20, 1903	31	465
Potasi No. 4 SW¼	Jan. 1, 1903	Apr. 20, 1903	31	465
Elks Range No. 9 NE¼	Jan. 1, 1903		54	408
Elks Range No. 10 NW¼	Jan. 1, 1903	Jan. 7, 1905	54	409
Elks Range No. 11 SW¼	Jan. 1, 1905	Jan. 7, 1905	54	410
Elks Range No. 12 SE¼	Jan. 1, 1905	Jan. 7, 1905	54	411

MEMORANDUM ABSTRACT

of all Notices of Location of Mining Claims recorded in the office of the County Recorder of the County of Kern, State of California, during the years 1899 to 1906, both years inclusive, affecting or in any way relating to Section 16, in Township 30 South, Range 23 East, Mount Diablo Base and Meridian, in the County of Kern, State of California.

Notice of Location	Date	Recorded	Mining Records Book	Page
Rajah No. 85 NW¼	Dec. 14, 1899	Dec. 15, 1899	18	297
Rajah No. 86 NE¼	Dec. 14, 1899	Dec. 15, 1899	18	298

Notice of Location	Date	Recorded—Mining Records	Book	Page
Rajah No. 87 SW¼	Dec. 14, 1899	Dec. 15, 1899	18	298
Rajah No. 88 SE¼	Dec. 14, 1899	Dec. 15, 1899	18	299

[1315]

Notice of Location	Date	Recorded—Mining Records	Book	Page
Wagont No. 22 NE¼	Jan. 1, 1901	Jan. 2, 1901	30	11
Wagont No. 23 NW¼	Jan. 1, 1901	Jan. 2, 1901	30	12
Wagont No. 24 SW¼	Jan. 1, 1901	Jan. 2, 1901	30	13
Wagont No. 25 SE¼	Jan. 1, 1901	Jan. 2, 1901	30	13
New York SW¼	Dec. 22, 1900	Jan. 7, 1901	26	271
NW¼	Dec. 24, 1900	Jan. 7, 1901	27	155
Gladstone NE¼	Jan. 23, 1901	Jan. 26, 1901	33	130
Eldorado SE¼	Jan. 23, 1901	Jan. 26, 1901	33	132
Vista Laguna No. 23 NE¼	Feb. 17, 1903	Mar. 6, 1903	46	486
Vista Laguna No. 24 NW¼	Feb. 17, 1903	Mar. 6, 1903	46	487
Vista Laguna No. 25 SW¼	Feb. 17, 1903	Mar. 6, 1903	46	488
Vista Laguna No. 26 SE¼	Feb. 17, 1903	Mar. 6, 1903	46	489
Elks Range No. 13 NE¼	Jan. 1, 1905	Jan. 7, 1905	54	411

Elks Range No. 14 NW¼				
	Jan. 1, 1905	Jan. 7, 1905	54	412
Elks Range No. 15 SW¼				
	Jan. 1, 1905	Jan. 7, 1905	54	413
Elks Range No. 16 SE¼				
	Jan. 1, 1905	Jan. 7, 1905	54	414

MEMORANDUM ABSTRACT

of all Notices of Location of Mining Claims recorded in the office of the County Recorder of the County of Kern, State of California, during the years 1899 to 1906, both years inclusive, affecting or in any way relating to Section 17, in Township 30 South, Range 23 East, Mount Diablo Base and Meridian, in the County of Kern, State of California. [**1316**]

Notice of Location	Date	Recorded—Mining Records		
			Book	Page
Rajah No. 124 NW¼	Dec. 16, 1899		18	329
Rajah No. 125 SW¼	Dec. 16, 1899		18	329
Rajah No. 126 NE¼	Dec. 16, 1899		18	330
Rajah No. 127 SE¼	Dec. 16, 1899		18	330
Wagont No. 26 NE¼	Jan. 2, 1901		30	13
Wagont No. 27 NW¼				
	Jan. 1, 1901	Jan. 2, 1901	30	14
Wagont No. 28 SW¼				
	Jan. 1, 1901	Jan. 2, 1901	30	14
Wagont No. 29 SE¼				
	Jan. 1, 1901	Jan. 2, 1901	30	15
St. Louis SE¼				
	Dec. 22, 1900	Jan. 7, 1901	26	270
NW¼	Dec. 24, 1900	Jan. 7, 1901	27	156
NE¼	Dec. 24, 1900	Jan. 7, 1901	27	156

Tacoma SW¼	Dec. 22, 1900	Jan. 10, 1901	26	348
Lark NW¼	Jan. 1, 1902	Jan. 4, 1902	41	45
Nightengale NE¼	Jan. 1, 1902	Jan. 4, 1902	41	46
Black Bird SE¼	Jan. 1, 1902	Jan. 4, 1902	41	47

MEMORANDUM ABSTRACT

of all Notices of Location of Mining Claims recorded in the office of the County Recorder of the County of Kern, State of California, during the years 1899 to 1906, both years inclusive, affecting or in any way relating to Section 18, in Township 30 South, Range 23 East, Mount Diablo Base and Meridian, in the County of Kern, State of California. **[1317]**

Notice of Location	Date	Recorded—Mining Records Book	Page
Rajah No. 128 NW¼	Dec. 14, 1899	Dec. 16, 1899	18	331
Rajah No. 129 NE¼	Dec. 14, 1899	Dec. 16, 1899	18	332
Rajah No. 130 SW¼	Dec. 14, 1899	Dec. 16, 1899	18	332
Rajah No. 131 SE¼	Dec. 14, 1899	Dec. 16, 1899	18	333
Wagont No. 30 NE¼	Jan. 1, 1901	Jan. 2, 1901	30	15
Wagont No. 31 NW¼	Jan. 1, 1901	Jan. 2, 1901	30	16
Wagont No. 32 SW¼	Jan. 1, 1901	Jan. 2, 1901	30	16

Wagont No. 33 SE¼				
	Jan. 1, 1901	Jan. 2, 1901	30	17
Big Thunder NE¼		Jan. 10, 1901	26	346
Washington SE¼				
	Dec. 22, 1900	Jan. 10, 1901	26	349
Ida No. 1 NW¼				
	Jan. 19, 1901	Jan. 22, 1901	27	306
Ida No. 4 SW¼				
	Jan. 19, 1901	Jan. 22, 1901	27	307
Ida No. 3 SE¼				
	Jan. 19, 1901	Jan. 22, 1901	27	308
Ida No. 2 NE¼				
	Jan. 19, 1901	Jan. 22, 1901	27	309

[1318]

MEMORANDUM ABSTRACT

of all Notices of Location of Mining Claims recorded in the office of the County Recorder of the County of Kern, State of California, during the years 1899 to 1906, both years inclusive, affecting or in any way relating to Section 19, in Township 30 South, Range 23 East, Mount Diablo Base and Meridian, in the County of Kern, State of California.

Notice of Location	Date	Recorded—Mining Records	Book	Page
Rajah No. 132 NW¼				
	Dec. 14, 1899	Dec. 16, 1899	18	333
Rajah No. 133 NE¼				
	Dec. 14, 1899	Dec. 16, 1899	18	334
Rajah No. 134 SW¼				
	Dec. 14, 1899	Dec. 16, 1899	18	335

Rajah No. 135 SE¼				
	Dec. 14, 1899	Dec. 16, 1899	18	335
Maryland SW¼				
	Dec. 22, 1900	Dec. 29, 1900	24	312
Wagont No. 34 NE¼				
	Jan. 1, 1901	Jan. 2, 1901	30	17
Wagont No. 35 NW¼				
	Jan. 1, 1901	Jan. 2, 1901	30	18
Wagont No. 36 SW¼				
	Jan. 1, 1901	Jan. 2, 1901	30	18
Wagont No. 37 SE¼				
	Jan. 1, 1901	Jan. 2, 1901	30	19
White Cloud No. 10 SW¼				
	Jan. 1, 1901	Jan. 3, 1901	25	182
White Cloud No. 9 SE¼				
	Jan. 1, 1901	Jan. 3, 1901	25	183
Virginia NW¼				
	Dec. 22, 1900	Jan. 7, 1901	26	255
Seattle NE¼				
	Dec. 22, 1900	Jan. 10, 1901	26	343
San Diego SE¼				
	Dec. 20, 1900	Jan. 10, 1901	26	350
1903 Oil Claim No. 3 SW¼				
	Jan. 1, 1903	Jan. 9, 1903	46	119

[1319]

MEMORANDUM ABSTRACT

of all Notices of Location of Mining Claims recorded in the office of the County Recorder of the County of Kern, State of California, during the years 1899 to 1906, both years inclusive, affecting or in any way relating to Section 20, in Township 30 South, Range

23 East, Mount Diablo Base and Meridian, in the County of Kern, State of California.

Notice of Location	Date	Recorded—Mining Records	Book	Page
Pelican Oil Co. No. 20 SW¼	Nov. 8, 1899	Nov. 18, 1899	18	22
Rajah No. 137 NE¼	Dec. 14, 1899	Dec. 16, 1899	18	336
Rajah No. 136 NW¼	Dec. 14, 1899	Dec. 16, 1899	18	336
Rajah No. 138 SW¼	Dec. 14, 1899	Dec. 16, 1899	18	337
Rajah No. 139 SE¼	Dec. 14, 1899	Dec. 16, 1899	18	338
Weasel SW¼	Dec. 18, 1899	Dec. 19, 1899	18	397
Wagont No. 38 NE¼	Jan. 1, 1901	Jan. 2, 1901	30	19
Wagont No. 40 SW¼	Jan. 1, 1901	Jan. 2, 1901	30	20
Wagont No. 39 NW¼	Jan. 1, 1901	Jan. 2, 1901	30	20
Wagont No. 41 SE¼	Jan. 1, 1901	Jan. 2, 1901	30	21
White Cloud No. 8 SW¼	Jan. 1, 1901	Jan. 3, 1901	27	121
Pasadena SW¼	Dec. 20, 1900	Jan. 7, 1901	26	258
Creasinger SE¼	Dec. 20, 1900	Jan. 7, 1901	26	269

Pennsyvalnia NE¼			
Dec. 22, 1900	Jan. 7, 1901	26	272
Omaha NW¼			
Dec. 22, 1900	Jan. 10, 1901	26	342
Blue Jay SE¼			
Jan. 1, 1902	Jan. 4, 1902	41	49

[**1320**]

Notice of Location	Date	Recorded—Mining Records Book	Page
Robin NE¼			
Jan 1, 1902	Jan. 4, 1902	41	50
1901 Oil Claim No. 4 SW¼			
Jan. 2, 1903	Jan. 9, 1903	46	120
Vista Laguna No. 7 NE¼			
Feb. 14, 1903	Mar. 6, 1903	46	474
Vista Laguna No. 8 NW¼			
Feb. 14, 1903	Mar. 6, 1903	46	475
Vista Laguna No. 9 SW¼			
Feb. 14, 1903	Mar. 6, 1903	46	476
Vista Laguna No. 10 SE¼			
Feb. 14, 1903	Mar. 6, 1903	46	477
Elks Range No. 17 NE¼			
Jan. 1, 1905	Jan. 7, 1905	54	414
Elks Range No. 18 NW¼			
Jan. 1, 1905	Jan. 7, 1805	54	415
Elks Range No. 19 SW¼			
Jan. 1, 1905	Jan. 7, 1905	54	416
Elks Range No. 20 SE¼			
Jan. 1, 1905	Jan. 7, 1905	54	417

MEMORANDUM ABSTRACT

Of all Notices of Location of Mining Claims recorded

in the office of the County Recorder of the County of Kern, State of California, during the years 1899 to 1906, both years inclusive, affecting or in any way relating to Section 21, in Township 30 South, Range 23 East, Mount Diablo Base and Meridian, in the County of Kern, State of California. [1321]

Notice of Location	Date	Recorded—Mining Records	Book	Page
Wagy Oil Co. No. 2 SE¼	Nov. 28, 1899	Dec. 2, 1899	18	154
Wagy Oil Co. No. 1 NE¼	Nov. 28, 1899	Dec. 2, 1899	18	155
Rajah No. 89 NW¼	Dec. 14, 1899	Dec. 15, 1899	18	299
Rajah No. 90 SW¼	Dec. 14, 1899	Dec. 15, 1999	18	300
Big Grey SW¼	Dec. 17, 1899	Dec. 19, 1899	18	399
Wagont No. 42 NE¼	Jan. 1, 1901	Jan. 2, 1901	30	21
Wagont No. 43 NW¼	Jan. 1, 1901	Jan. 2, 1901	30	22
Wagont No. 44 SW¼	Jan. 1, 1901	Jan. 2, 1901	30	22
Wagont No. 45 SE¼	Jan. 1, 1901	Jan. 2, 1901	30	23
Chicago NW¼	Dec. 22, 1900	Jan. 7, 1901	26	273
Monterey SE¼	Jan. 24, 1901	Jan. 26, 1901	25	474

Dominguez NE¼				
	Jan. 24, 1901	Jan. 26, 1901	25	479
Simmons SW¼				
	Jan. 22, 1901	Jan. 26, 1901	33	129
Blue Bird NW¼				
	Jan. 1, 1902	Jan. 4, 1902	41	43
X 10 U 8 Oil Co. No. 5E N¼				
	Feb. 17, 1903	Feb. 21, 1903	46	370
X 10 U 8 Oil Co. No. 6 NW¼				
	Feb. 17, 1903	Feb. 21, 1903	46	371
X 10 U 8 Oil Co. No. 7 SW¼				
	Feb. 17, 1903	Feb. 21, 1903	46	373
X 10 U 8 Oil Co. No. 8 SE¼				
	Feb. 17, 1903	Feb. 21, 1903	46	374
Rlks Range No. 21 NE¼				
	Jan. 1, 1905	Jan. 7, 1905	54	418
Elks Range No. 22 NW¼				
	Jan. 1, 1905	Jan. 7, 1905	54	418
Elks Range No. 23 SW¼				
	Jan. 1, 1905	Jan. 7, 1905	54	419
Elks Range No. 24 SE¼				
	Jan. 1, 1905	Jan. 7, 1905	54	420

[1322]

MEMORANDUM ABSTRACT

of all Notices of Location of Mining Claims recorded in the office of the County Recorder of the County of Kern, State of California, during the years 1899 to 1906, both years inclusive, affecting or in any way relating to Section 22, in Township 30 South, Range 23 East, Mount Diablo Base and Meridian, in the County of Kern, State of California.

Notice of Location	Date	Recorded—Mining Records	Book	Page
Blue Hills Oil Co. No. 2 NE¼	Nov. 26, 1899	Dec. 2, 1899	18	148
Blue Hills Oil Co. No. 3 SE¼	Nov. 26, 1899	Dec. 2, 1899	18	148
Blue Hills Oil Co. No. 6 NW¼	Nov. 26, 1899	Dec. 2, 1899	18	150
Blue Hills Oil Co. No. 9 SW¼	Nov. 28, 1899	Dec. 2, 1899	18	151
Wagont No. 46 NE¼	Jan. 1, 1901	Jan. 2, 1901	30	23
Wagont No. 47 NW¼	Jan. 1, 1901	Jan. 2, 1901	30	24
Wagont No. 48 SW¼	Jan. 1, 1901	Jan. 2, 1901	30	24
Wagont No. 49 SE¼	Jan. 1, 1901	Jan. 2, 1901	30	25
Belmont SW¼	Jan. 24, 1901	Jan. 26, 1901	33	136
Gypsy Queen NE¼	Jan. 24, 1901	Jan. 26, 1901	33	137
Kern SE¼	Jan. 24, 1901	Jan. 26, 1901	33	138
White Swan NW¼	Jan. 24, 1901	Jan. 30, 1901	34	102
Black Bird SE¼	Mar. 5, 1901	Mar. 7, 1901	35	20
Rose Bud NE¼	Mar. 5, 1901	Mar. 7, 1901	35	21
Lillie Queen NW¼	Mar. 5, 1901	Mar. 8, 1901	30	451

Notice of Location	Date Recorded	Mining Records Book	Page
Flint Lock SW¼	Mar. 5, 1901	Mar. 8, 1901	35 21
Dover No. 1 SW¼	Feb. 11, 1903	Mar. 10, 1903	31 454

[1323]

Notice of Location	Date Recorded	Mining Records Book	Page
Dover No. 3 SE¼	Feb. 11, 1903	Mar. 10, 1903	31 455
Dover No. 2 NW¼	Feb. 11, 1903	Mar. 10, 1903	31 455
Dover No. 4 NE¼	Feb. 11, 1903	Mar. 10, 1903	31 456
Malvina No. 4 SW¼	Jan. 1, 1903	Apr. 20, 1903	31 462
Malvina No. 3 SE¼	Jan. 1, 1903	Apr. 20, 1903	31 462
Malvina No. 2 NW¼	Jan. 1, 1903	Apr. 20, 1903	31 463
Malvina NE¼	Jan. 1, 1903	Apr. 20, 1903	31 463
Elks Range No. 1 NE¼	Jan. 1, 1905	Jan. 7, 1905	54 402
Elks Range No. 2 NW¼	Jan. 1, 1905	Jan. 7, 1905	54 403
Elks Range No. 3 SW¼	Jan. 1, 1905	Jan. 7, 1905	54 404
Elks Range No. 4 SE¼	Jan. 1, 1905	Jan. 7, 1905	54 405

MEMORANDUM ABSTRACT

of all Notices of Location of Mining Claims recorded

in the office of the County Recorder of the County of Kern, State of California, during the years 1899 to 1906, both years inclusive, affecting or in any way relating to Section 23, in Township 30 South, Range 23 East, Mount Diablo Base and Meridian, in the County of Kern, State of California. [1324]

Notice of Location	Date	Recorded—Mining Records	Book	Page
Pelican Oil Co. No. 21 SE¼	Nov. 8, 1899	Nov. 18, 1899	18	23
Pelican Oil Co. No. 24 NL¼	Nov. 9, 1899	Nov. 18, 1899	18	24
Pelican Oil Co. No. 27 NW¼	Nov. 9, 1899	Nov. 18, 1899	18	25
Pelican Oil Co. No. 28 SW¼	Nov. 9, 1899	Nov. 18, 1899	18	25
Wagont No. 50 NE¼	Jan. 1, 1901	Jan. 2, 1901	30	25
Wagont No. 51 NW¼	Jan. 1, 1901	Jan. 2, 1901	30	26
Wagont No. 52 SW¼	Jan. 1, 1901	Jan. 2, 1901	30	26
Wagont No. 53 SE¼	Jan. 1, 1901	Jan. 2, 1901	30	27
Sun Flower NW¼	Jan. 24, 1901	Feb. 9, 1901	27	410
Rubin SW¼	Jan. 24, 1901	Feb. 9, 1901	27	411
Gray Hound NE¼		Mar. 7, 1901	34	364
Blue Jay SE¼		Mar. 7, 1901	34	365

Blue Gross NE¼			
Mar. 5, 1901	Mar. 8, 1901	33	453
Last Chanse SW¼			
Mar. 5, 1901	Mar. 8, 1901	33	454
Sultan No. 57 NE¼			
Jan. 1, 1903	Jan. 3, 1903	30	140
Sultan No. 55 SE¼			
Jan. 1, 1903	Jan. 3, 1903	30	141
Sultan No. 56 SW¼			
Jan. 1, 1903	Jan. 3, 1903	30	140
Black Jack No. 2 NW¼			
Jan. 1, 1903	Jan. 3, 1903	45	381

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MEMORANDUM ABSTRACT

of all Notices of Location of Mining Claims recorded in the office of the County Recorder of the County of Kern, State of California, during the years 1899 to 1906, both years inclusive, affecting or in any way relating to Section 24, in Township 30 South, Range 23 East, Mount Diablo Base and Meridian, in the County of Kern, State of California.

Notice of Location	Date Recorded	Mining Records Book	Page
Pellican Oil Co. No. 17 SE¼			
Nov. 8, 1899	Nov. 18, 1899	18	21
Pelican Oil Co. No. 23 NW¼			
Nov. 9, 1899	Nov. 18, 1899	18	23
Pelican Oil Co. No. 22 NE¼			
Nov. 8, 1899	Nov. 18, 1899	18	23
Black Hawk No. 12 SW¼			
Sept. 5, 1900	Sept. 19, 1900	22	493

Notice of Location	Date	Recorded	Book	Page
Wagont No. 54 NE¼	Jan. 1, 1901	Jan. 2, 1901	30	27
Wagont No. 54 NW¼	Jan. 1, 1901	Jan. 2, 1901	30	28
Wagont No. 56 SW¼	Jan. 1, 1901	Jan. 2, 1901	30	28
Wagont No. 57 SE¼	Jan. 1, 1901	Jan. 2, 1901	30	29
C. L. Ward No. 1 NE¼	Feb. 14, 1901	Feb. 18, 1901	34	256
A. M. Robinson No. 1 SE¼	Feb. 14, 1901	Feb. 18, 1901	34	257
T. E. McShane No. 3 NW¼	Feb. 14, 1901	Feb. 18, 1901	34	265
T. E. McShane No. 4 SW¼	Feb. 14, 1901	Feb. 18, 1901	34	267
Sultan No. 58 NW¼	Jan. 1, 1903	Jan. 3, 1903	30	138
Sultan No. 59 NE¼	Jan. 1, 1903	Jan. 3, 1903	30	138
Sultan No. 54 SW¼	Jan. 1, 1903	Jan. 3, 1903	30	139
Sultan No. 53 SE¼	Jan. 1, 1903	Jan. 3, 1903	30	139

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Notice of Location	Date	Recorded	Book	Page
Crow No. 1 NE¼	Jan. 1, 1903	Jan. 5, 1903	39	81
Dover No. 5 SE¼	Jan. 28, 1905	Jan. 30, 1905	55	192

Dover No. 6 SW¼			
Jan. 28, 1905	Jan. 30, 1905	55	193
Dover No. 7 NE¼			
Jan. 28, 1905	Jan. 30, 1905	55	194
Dover No. 8 NW¼			
Jan. 28, 1905	Jan. 30, 1905	55	194

MEMORANDUM ABSTRACT

of all Notices of Location of Mining Claims recorded in the office of the County Recorder of the County of Kern, State of California, during the years 1899 to 1906, both years inclusive, affecting or in any way relating to Section 25, in Township 30 South, Range 23 East, Mount Diablo Base and Meridian, in the County of Kern, State of California.

Notice of Location	Date Recorded	Mining Records Book	Page
Pelican Oil Co. No. 16 NE¼			
Nov. 8, 1899	Nov. 18, 1899	18	21
Pelican Oil Co. No. 18 NW¼			
Nov. 8, 1899	Nov. 18, 1899	18	21
Rajah No. 99 SW¼			
Dec. 14, 1899	Dec. 15, 1899	18	305
Rajah No. 100 SE¼			
Dec. 14, 1899	Dec. 15, 1899	18	306
Rustler No. 13 SE¼			
Dec. 20, 1899	Jan. 13, 1900	18	430
Wagont No. 58 NE¼			
Jan. 1, 1901	Jan. 2, 1901	30	29
Wagont No. 59 NW¼			
Jan. 1, 1901	Jan. 2, 1901	30	30

Notice of Location	Date	Recorded—Mining Records	Book	Page
Wagont No. 60 SW¼	Jan. 1, 1901	Jan. 2, 1901	30	30
Wagont No. 61 SE¼	Jan. 1, 1901	Jan. 2, 1901	30	31
Sultan No. 51 NW¼	Jan. 1, 1903	Jan. 3, 1903	30	136
Sultan No. 52 NE¼	Jan. 1, 1903	Jan. 3, 1903	30	136
Sultan No. 47 SE¼	Jan. 1, 1903	Jan. 3, 1903	30	137
Sultan No. 48 SW¼	Jan. 1, 1903	Jan. 3, 1903	30	137
Crow No. 6 NW¼	Jan. 1, 1903	Jan. 5, 1903	39	82
Crow No. 8 SE¼	Jan. 1, 1903	Jan. 5, 1903	39	84
Crow No. 5 NE¼	Jan. 1, 1903	Jan. 5, 1903	39	85
Crow No. 7 SW¼	Jan. 1, 1903	Jan. 5, 1903	39	85
Dover No. 1 NE¼	Jan. 28, 1905	Jan. 30, 1905	55	190
Dover No. 2 NW¼	Jan. 28, 1905	Jan. 30, 1905	55	190
Dover No. 3 SE¼	Jan. 28, 1905	Jan. 30, 1905	55	191
Dover No. 4 SW¼	Jan. 28, 1905	Jan. 30, 1905	55	192

MEMORANDUM ABSTRACT

of all Notices of Location of Mining Claims recorded in the office of the County Recorder of the County of Kern, State of California, during the years 1899 to 1906, both years inclusive, affecting or in any way relating to Section 26, in Township 30 South, Range 23 East, Mount Diablo Base and Meridian, in the County of Kern, State of California. [1328]

Notice of Location	Date	Recorded—Mining Records	Book	Page
Pelican Oil Co. No. 19 NE¼	Nov. 8, 1899	Nov. 18, 1899	18	22
Pelican Oil Co. No. 29 NW¼	Nov. 9, 1899	Nov. 18, 1899	18	26
Rajah No. 97 SW¼	Dec. 14, 1899	Dec. 15, 1899	18	304
Rajah No. 98 SE¼	Dec. 14, 1899	Dec. 15, 1899	18	305
Wagont No. 63 NW¼	Jan. 1, 1901	Jan. 2, 1901	30	32
Wagont No. 62 NE¼	Jan. 1, 1901	Jan. 2, 1901	30	31
Wagont No. 65 SE¼	Jan. 1, 1901	Jan. 2, 1902	30	33
Wagont No. 64 SW¼	Jan. 1, 1901	Jan. 2, 1901	30	32
Eagle SW¼	Jan. 24, 1901	Feb. 9, 1901	27	411
Wilson NW¼	Jan. 24, 1901	Feb. 25, 1901	27	488

Adna No. 2 SW¼
Jan. 1, 1903 Jan. 2, 1903 45 230
Sultan No. 5-- NE¼
Jan. 1, 1903 Jan. 3, 1903 30 135
Sultan No. 49 SE¼
Jan. 1, 1903 Jan. 3, 1903 30 135
Black Jack No. 1 SW¼
Jan. 1, 1903 Jan. 3. 1903 45 374
Blue Jay NW¼
Jan. 1, 1903 Jan. 3, 1903 45 375
Buckhorn No. 1 NE¼
Feb. 11, 1903 Mar. 10, 1903 31 456
Buckhorn No. 2 NW¼
Feb. 11, 1903 Mar. 10, 1903 31 459
Buckhorn No. 3 SE¼
Feb. 11, 1903 Mar. 10, 1903 31 459
Buckhorn No. 4 SW¼
Feb. 11, 1903 Mar. 10, 1903 31 460
Elk Hills No. 25 NW¼
Jan. 1, 1905 Jan. 7, 1905 54 397
Elks Range No. 26 SW¼
Jan. 1, 1905 Jan. 7, 1905 54 421

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MEMORANDUM ABSTRACT

of all Notices of Location of Mining Claims recorded in the office of the County Recorder of the County of Kern, State of California, during the years 1899 to 1906, both years inclusive, affecting or in any way relating to Section 27, in Township 30 South, Range 23 East, Mount Diablo Base and Meridian, in the County of Kern, State of California.

Notice of Location	Date	Recorded—Mining Records		
			Book	Page
Blue Hills Oil Co. No. 4 NE¼	Nov. 26, 1899	Dec. 2, 1899	18	149
Blue Hills Oil Co. No. 10 NW¼	Nov. 28, 1899	Dec. 2, 1899	18	151
Rajah No. 95 SW¼	Dec. 14, 1899	Dec. 15, 1899	18	303
Rajah No. 96 SE¼	Dec. 14, 1899	Dec. 15, 1899	18	304
Wagont No. 66 NE¼	Jan. 1, 1901	Jan. 2, 1901	30	33
Wagont No. 67 NW¼	Jan. 1, 1901	Jan. 2, 1901	30	34
Wagont No. 68 SW¼	Jan. 1, 1901	Jan. 2, 1901	30	34
Wagont No. 69 SE¼	Jan. 1, 1901	Jan. 2, 1901	30	35
Bonton NW¼	Jan. 24, 1901	Jan. 30, 1901	34	87
Flugstod NE¼	Jan. 24, 1901	Jan. 30, 1901	34	88
Charley SE¼	Jan. 24, 1901	Jan. 30, 1901	34	89
Dipsey SW¼	Jan. 24, 1901	Jan. 30, 1901	34	89
Vista Laguna No. 3 NE¼	Feb. 12, 1903	Mar. 6, 1903	46	470
Vista Laguna No. 4 NW¼	Feb. 12, 1903	Mar. 6, 1903	46	471

Vista Laguna No. 5 SW¼			
Feb. 12, 1903	Mar. 6, 1903	46	472
Vista Laguna No. 6 SE¼			
Feb. 12, 1903	Mar. 6, 1903	46	473

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Notice of Location	Date	Recorded—Mining Records Book	Page
White Cloud No. 2 NW¼			
Jan. 1, 1903	Apr. 20, 1903	31	461
White Cloud No. 1 NE¼			
Jan. 1, 1903	Apr. 20, 1903	31	461
Elk Hills No. 27 NE¼			
Jan. 1, 1905	Jan. 7, 1905	54	399
Elk Hills No. 28 NW¼			
Jan. 1, 1905	Jan. 7, 1905	54	399
Elk Hills No. 29 SW¼			
Jan. 1, 1905	Jan. 7, 1905	54	400
Elk Hills No. 30 SE¼			
Jan. 1, 1905	Jan. 7, 1905	54	401

MEMORANDUM ABSTRACT

of all Notices of Location of Mining Claims recorded in the office of the County Recorder of the County of Kern, State of California, during the years 1889 to 1906, both years inclusive, affecting or in any way relating to Section 28, in Township 30 South, Range 23 East, Mount Diablo Base and Meridian, in the County of Kern, State of California.

Notice of Location	Date	Recorded—Mining Records Book	Page
Rajah No. 91 NW¼			
Dec. 14, 1899	Dec. 15, 1899	18	301

Rajah No. 92 NE¼				
	Dec. 14, 1900	Dec. 15, 1899	18	301
Rajah No. 93 SW¼				
	Dec. 14, 1899	Dec. 15 1899	18	302
Rajah No. 94 SE¼				
	Dec. 14, 1899	Dec. 15, 1899	18	302
Bonanza No. 1 NW¼				
	Dec. 17, 1899	Dec. 19, 1899	18	398
Fox Hound SW¼				
	Dec. 17, 1899	Dec. 19, 1899	18	398

[1331]

Notice of Location	Date	Recorded—Mining Records	Book	Page
Colonel SE¼				
	Dec. 17, 1899	Dec. 19, 1899	18	399
Esparanza NE¼				
	Dec. 17, 1899	Dec. 19, 1899	18	400
Wood SW¼				
	Dec. 20, 1900	Dec. 27, 1900	24	295
Dewey NW¼				
	Dec. 20, 1900	Dec. 27, 1900	24	299
Wagont No. 70 NE¼				
	Jan. 1, 1901	Jan. 2, 1901	30	35
Wagont No. 71 NW¼				
	Jan. 1, 1901	Jan. 2, 1901	30	36
Wagont No. 72 SW¼				
	Jan. 1, 1901	Jan. 2, 1901	30	36
Wagont No. 73 SE¼				
	Jan. 1, 1901	Jan. 2, 1901	30	37
Huntington E½ of SW¼				
	Dec. 14, 1900	Jan. 12, 1901	25	329

Hazleton W½ of SW¼
Dec. 14, 1900 Jan. 12, 1901 25 330

McCarty NE¼
Jan. 24, 1901 Jan. 26, 1901 25 471

Black Hill SE¼
Jan. 24, 1901 Jan. 26, 1901 25 477

Dewey NW¼
Jan. 1, 1902 Jan. 2, 1902 38 24

Wisconsin NW¼
Jan. 2, 1902 Jan. 16, 1902 35 430

Nebraska SW¼
Jan. 2, 1902 Jan. 16, 1902 35 431

X 10 U S Oil Co. No. 1 NE¼
Feb. 14, 1903 Feb. 21, 1903 46 366

X 10 U Eight Oil Co. No. 2 NW¼
Feb. 14, 1903 Feb. 21, 1903 46 367

X 10 U 8 Oil Co. No. 3 SW¼
Feb. 14, 1903 Feb. 21, 1903 46 368

X 10 U 8 Oil Co. No. 4 SE¼
Feb. 14, 1903 Feb. 21, 1903 46 369

MEMORANDUM ABSTRACT

of all Notices of Location of Mining Claims recorded in the office of the County Recorder of the County of Kern, State of California, during the years 1899 to 1906, both years inclusive, affecting or in any way relating to Section 29, [1332] in Township 30 South, Range 23 East, Mount Diablo Base and Meridian, in the County of Kern, State of California.

Notice of Location	Date	Recorded—Mining Records	Book	Page
Rajah No. 140 NW¼	Dec. 14, 1899	Dec. 16, 1899	18	338
Rajah No. 141 NE¼	Dec. 14, 1899	Dec. 16, 1899	18	339
Rajah No. 142 SW¼	Dec. 14, 1899	Dec. 16, 1899	18	339
Rajah No. 143 SE¼	Dec. 14, 1899	Dec. 16, 1899	18	340
Ferret SW¼	Dec. 18, 1899	Dec. 19, 1899	18	397
Rabbit Foot NW¼	Dec. 18, 1899	Dec. 19, 1899	18	398
Bear SE¼	Dec. 18, 1899	Dec. 19, 1899	18	401
Wagont No. 74 NE¼	Jan. 1, 1901	Jan. 2, 1901	30	37
Wagont No. 75 NW¼	Jan. 1, 1901	Jan. 2, 1901	30	38
Wagont No. 76 SW¼	Jan. 1, 1901	Jan. 2, 1901	30	38
Wagont No. 77 SE¼	Jan. 1, 1901	Jan. 2, 1901	30	39
White Cloud No. 7 NW¼	Jan. 1, 1901	Jan. 3, 1901	27	121
Montana E½ of SW¼	Dec. 13, 1900	Jan. 7, 1901	26	276
Oregon W½ of SW¼	Dec. 12, 1900	Jan. 7, 1901	26	277
Morning Sun SE¼	Dec. 20, 1900	Jan. 10, 1901	26	341

Gold Bag NW¼				
	Dec. 20, 1900	Jan. 10, 1901	26	351
White Cloud No. 6 SW¼				
	Jan. 1, 1901	Jan. 10, 1901	27	187
Salem E½ of SE¼				
	Dec. 14, 1900	Jan. 11, 1901	25	325
Berwick W½ of SE¼				
	Dec. 14, 1900	Jan. 11, 1901	25	326
Evening Star NE¼				
	Dec. 20, 1900	Jan. 15, 1901	25	368
Iowa SE¼				
	Jan. 2, 1902	Jan. 16, 1902	35	431
Elk Hills No. 10 SE¼				
	Jan. 5, 1903	Jan. 9, 1903	45	493
Elk Hills No. 5 SW¼				
	Jan. 1, 1903	Jan. 9, 1903	45	498
1903 Oil Claim No. 5 NE¼				
	Jan. 2, 1903	Jan. 9, 1903	46	118

[1333]

MEMORANDUM ABSTRACT

of all Notices of Location of Mining Claims recorded in the office of the County Recorder of the County of Kern, State of California, during the years 1899 to 1906, both years inclusive, affecting or in any way relating to Section 30, in Township 30 South, Range 23 East, Mount Diablo Base and Meridian, in the County of Kern, State of California.

Notice of Location	Date	Recorded—Mining Records Book	Page
Rajah No. 144 NW¼			
	Dec. 14, 1899	Dec. 16, 1899	18	341

Rajah No. 145 NE¼				
	Dec. 14, 1899	Dec. 16, 1899	18	341
Rajah No. 146 SW¼				
	Dec. 14, 1899	Dec. 16, 1899	18	342
Rajah No. 147 SE¼				
	Dec. 14, 1899	Dec. 16, 1899	18	342
Gopher SE¼				
	Dec. 18, 1899	Dec. 19, 1899	18	400
Rattle Snake NE¼				
	Dec. 18, 1899	Dec. 19, 1899	18	401
New York E½ of SE¼				
	Dec. 12, 1900	Dec. 19, 1900	23	451
Virginia W½ of SE¼				
	Dec. 13, 1900	Dec. 19, 1900	23	454
NE¼	Dec. 20, 1900	Dec. 27, 1900	24	301
Virginia NW¼				
	Dec. 22, 1900	Dec. 28, 1900	27	2
Wagont No. 78 NE¼				
	Jan. 1, 1901	Jan. 2, 1901	30	39
Wagont No. 79 NW¼				
	Jan. 1, 1901	Jan. 2, 1901	30	40
Wagont No. 80 SW¼				
	Jan. 1, 1901	Jan. 2, 1901	30	40
Wagont No. 81 SE¼				
	Jan. 1, 1901	Jan. 2, 1901	30	41
White Cloud No. 3 NE¼				
	Jan. 1, 1901	Jan. 3, 1901	25	179
White Cloud No. 2, NW¼				
	Jan. 1, 1901	Jan. 3, 1901	25	180
White Cloud No. 1 SW¼				
	Jan. 1, 1901	Jan. 3, 1901	25	181

Notice of Location	Date	Recorded	Mining Records Book	Page
White Cloud No. 4 SE¼	Jan. 1, 1901	Jan. 10, 1901	27	187
Virginia NW¼	Jan. 1, 1902	Jan. 2, 1902	38	22
Stedman No. 2 NW¼	Jan. 1, 1903	Jan. 2, 1903	45	225
Elk Hills No. 1 SW¼	Jan. 1, 1903	Jan. 9, 1903	45	494
Elk Hills No. 2, NW¼	Jan. 1, 1903	Jan. 9, 1903	45	496
Elk Hills No. 4 SE¼	Jan. 1, 1903	Jan. 9, 1903	45	497
1903 Oil Claim No. 2 NE¼	Jan. 1, 1903	Jan. 9, 1903	46	117
Pine SW¼	Jan. 1, 1906	Jan. 3, 1906	57	331
Red Fox NW¼	Jan. 1, 1906	Jan. 6, 1906	57	356

MEMORANDUM ABSTRACT

of all Notices of Location of Mining Claims recorded in the office of the County Recorder of the County of Kern, State of California, during the years 1899 to 1906, both years inclusive, affecting or in any way relating to Section 32, in Township 30 South, Range 23 East, Mount Diablo Base and Meridian, in the County of Kern, State of California. [1335]

Notice of Location	Date	Recorded	Mining Records Book	Page
Rajah No. 148 NW¼	Dec. 14, 1899	Dec. 16, 1899	18	343

Rajah No. 150 SW¼				
	Dec. 14, 1899	Dec. 16, 1899	18	344
Rajah No. 149 NE¼				
	Dec. 14, 1899	Dec. 16, 1899	18	344
Rajah No. 151 SE¼				
	Dec. 14, 1899	Dec. 16, 1899	18	345
Garciosa NE¼				
	Dec. 18, 1899	Dec. 19, 1899	18	400
Chipmunk NW¼				
	Dec. 18, 1899	Dec. 19, 1899	18	401
Illinois W½ of SE¼				
	Dec. 13, 1900	Dec. 19, 1900	23	450
Ohio E½ of SE¼				
	Dec. 13, 1900	Dec. 19, 1900	23	452
Sunnyside *				
	Dec. 24, 1900	Dec. 27, 1900	27	1
Irene *				
	Dec. 24, 1900	Dec. 28, 1900	28	2
Bonita *				
	Dec. 24, 1900	Dec. 31, 1900	27	4
Wagont No. 82 NE¼				
	Jan. 1, 1901	Jan. 2, 1901	30	41
Wagont No. 83 NW¼				
	Jan. 1, 1901	Jan. 2, 1901	30	42
Wagont No. 84 SW¼				
	Jan. 1, 1901	Jan. 2, 1901	30	42
Wagont No. 85 SE¼				
	Jan. 1, 1901	Jan. 2, 1901	30	43
Los Angeles NE¼				
	Dec. 20, 1900	Jan. 10, 1901	26	352
White Cloud No. 13 NE¼				
	Jan. 5, 1901	Jan. 10, 1901	27	186

White Cloud No. 5 NW¼				
	Jan. 1, 1901	Jan. 10, 1901	27	188
White Cloud No. 12 SE¼				
	Jan. 5, 1901	Jan. 10, 1901	27	188
White Cloud No. 11 SW¼				
	Jan. 5, 1901	Jan. 10, 1901	27	189
Shickshinny W½ of NE¼				
	Dec. 14, 1900	Jan. 11, 1901	25	324
West Union E½ of NE¼				
	Dec. 14, 1900	Jan. 11, 1901	25	327
Ohio E½ of SW¼				
	Dec. 13, 1900	Jan. 30, 1901	34	86
Elk Hills No. 6 NW¼				
	Jan. 1, 1903	Jan. 9, 1903	45	499
Elk Hills No. 7 NE¼				
	Jan. 1, 1903	Jan. 9, 1903	47	1
Elk Hills No. 8 SE¼				
	Jan. 1, 1903	Jan. 9, 1903	47	2
Elk Hills No. 9 SW¼				
	Jan. 1, 1903	Jan. 9, 1903	47	3

(* Described by metes and bounds) **[1336]**

MEMORANDUM ABSTRACT

of all Notices of Location of Mining Claims recorded in the office of the County Recorder of the County of Kern, State of California, during the years 1899 to 1906, both years inclusive, affecting or in any way relating to Section 33, in Township 30 South, Range 23 East, Mount Diablo Base and Meridian, in the County of Kern, State of California.

Notice of Location	Date Recorded	Mining Records Book	Page
Rajah No. 152 NW¼	Dec. 14, 1899 Dec. 16, 1899	18	345
Rajah No. 153 NE¼	Dec. 14, 1899 Dec. 16, 1899	18	347
Rajah No. 154 SW¼	Dec. 14, 1899 Dec. 16, 1899	18	347
Rajah No. 150 SE¼	Dec. 16, 1899 Dec. 16, 1899	18	348
Wagont No. 86 NE¼	Jan. 1, 1901 Jan. 2, 1901	30	43
Wagont No. 87 NW¼	Jan. 1, 1901 Jan. 2, 1901	30	44
Wagont No. 88 SW¼	Jan. 1, 1901 Jan. 2, 1901	30	44
Wagont No. 89 SE¼	Jan. 1, 1901 Jan. 2, 1901	30	45
Beaver NW¼	Dec. 20, 1900 Jan. 7, 1901	26	270
Fremont W½ of SW¼	Dec. 13, 1900 Jan. 7, 1901	26	274
Georgia W½ of SE¼	Dec. 13, 1900 Jan. 11, 1901	25	328
New Columbus W½ of NW¼	Dec. 14, 1900 Jan. 12, 1901	25	331
Town Hill E½ of NW¼	Dec. 14, 1900 Jan. 12, 1901	25	332
W. S. Cather No. 1 NW¼	Jan. 24, 1901 Feb. 4, 1901	33	310

McCarty No. 2 NE¼
Jan. 24, 1901 Feb. 8, 1901 27 408
Angelus SE¼
Jan. 1, 1902 Jan. 2, 1902 38 23
Grey Eagle NW¼
Jan. 1, 1902 Jan. 4, 1902 41 48

[1337]

Notice of Location Date Recorded—Mining Records
Book Page

White Horse No. 4 SW¼
Jan. 1, 1903 Jan. 3, 1903 45 376
White Horse No. 3 NW¼
Jan. 1, 1903 Jan. 3, 1903 45 377
White Horse No. 1 SE¼
Jan. 1, 1903 Jan. 3, 1903 45 378
White Horse No. 2 NE¼
Jan. 1, 1905 Jan. 3, 1903 45 379

MEMORANDUM ABSTRACT

of all Notices of Location of Mining Claims recorded in the office of the County Recorder of the County of Kern, State of California, during the years 1899 to 1906, both years inclusive, affecting or in any way relating to Section 34, Township 30 South, Range 23 East, Mount Diablo Base and Meridian, in the County of Kern, State of California.

Notice of Location Date Recorded—Mining Records
Book Page

Rajah No. 101 NW¼
Dec. 14, 1899 Dec. 15, 1899 18 307
Rajah No. 102 SW¼
Dec. 14, 1899 Dec. 15, 1899 18 307

Rajah No. 103 NE¼				
	Dec. 14, 1899	Dec. 15, 1899	18	308
Rajah No. 104 SE¼				
	Dec. 14, 1899	Dec. 15, 1899	18	308
Antelope NW¼				
	Dec. 18, 1899	Dec. 19, 1899	18	399
Wagont No. 90 NE¼				
	Jan. 1, 1901	Jan. 2, 1901	30	45

[1338]

Notice of Location	Date	Recorded—Mining Records	Book	Page
Wagont No. 91 NW¼				
	Jan. 1, 1901	Jan. 2, 1901	30	46
Wagont No. 92 SW¼				
	Jan. 1, 1901	Jan. 2, 1901	30	46
Wagont No. 93 SE¼				
	Jan. 1, 1901	Jan. 2, 1901	30	47
Big Thunder NW¼				
	Jan. 24, 1901	Jan. 31, 1901	33	257
Sultan No. 41 NW¼				
	Jan. 1, 1903	Jan. 3, 1903	30	133
Sultan No. 42 NE¼				
	Jan. 1, 1903	Jan. 3, 1903	30	133
Sultan No. 39 SE¼				
	Jan. 1, 1903	Jan. 3, 1903	30	134
Sultan No. 40 SW¼				
	Jan. 1, 1903	Jan. 3, 1903	30	134

MEMORANDUM ABSTRACT

Of all Notices of Location of Mining Claims recorded in the office of the County Recorder of the County of

Kern, State of California, during the years 1899 to 1906, both years inclusive, affecting or in any way relating to Section 35, in Township 30 South, Range 23 East, Mount Diablo Base and Meridian, in the County of Kern, State of California.

Notice of Location	Date	Recorded	Mining Records Book	Page
Rajah No. 105 NW¼	Dec. 14, 1899	Dec. 15, 1899	18	309
Rajah No. 106 NE¼	Dec. 14, 1899	Dec. 15, 1899	18	310
Rajah No. 107 SW¼	Dec. 14, 1899	Dec. 15, 1899	18	310
Rajah No. 108 SE¼	Dec. 14, 1899	Dec. 15, 1899	18	311

[1339]

Notice of Location	Date	Recorded	Mining Records Book	Page
Wagont No. 94 NE¼	Jan. 1, 1901	Jan. 2, 1901	30	47
Wagont No. 95 NW¼	Jan. 1, 1901	Jan. 2, 1901	30	48
Wagont No. 96 SW¼	Jan. 1, 1901	Jan. 2, 1901	30	48
Wagont No. 97 SE¼	Jan. 1, 1901	Jan. 2, 1901	30	49
Sultan No. 43 NW¼	Jan. 1, 1903	Jan. 3, 1903	30	130
Sultan No. 44 NE¼	Jan. 1, 1903	Jan. 3, 1903	30	131

Sultan No. 37 SE¼

Jan. 1, 1903	Jan. 3, 1903	30	131

Sultan No. 38 SW¼

Jan. 1, 1903	Jan. 3, 1903	30	132

MEMORANDUM ABSTRACT

Of all Notices of Location of Mining Claims recorded in the office of the County Recorder of the County of Kern, State of California, during the years 1899 to 1906, both years inclusive, affecting or in any way relating to Section 36, Township 30 South, Range 23 East, Mount Diablo Base and Meridian, in the County of Kern, State of California.

Notice of Location	Date	Recorded—Mining Records Book	Page
Rajah No. 109 NW¼			
	Dec. 14, 1899	Dec. 15, 1899	18 311
Rajah No. 110 NE¼			
	Dec. 14, 1899	Dec. 15, 1899	18 312
Rajah No. 111 SW¼			
	Dec. 14, 1899	Dec. 15, 1899	18 313
Rajah No. 112 SE¼			
	Dec. 14, 1899	Dec. 15, 1899	18 313

[1340]

Notice of Location	Date	Recorded—Mining Records Book	Page
Rustler No. 12 NE¼			
	Dec. 20, 1899	June 13, 1900	18 431
Wagont No. 98 NE¼			
	Jan. 1, 1901	Jan. 2, 1901	30 49

Wagont No. 99 NW¼				
	Jan. 1, 1901	Jan. 2, 1901	30	50
Wagont No. 100 SW¼				
	Jan. 1, 1901	Jan. 2, 1901	30	50
Wagont No. 101 SE¼				
	Jan. 1, 1901	Jan. 2, 1901	30	51
Sultan No. 45 NW¼				
	Jan. 1, 1903	Jan. 3, 1903	30	128
Sultan No. 46 NE¼				
	Jan. 1, 1903	Jan. 3, 1903	30	129
Sultan No. 35 SE¼				
	Jan. 1, 1903	Jan. 3, 1903	30	129
Sultan No. 36 SW¼				
	Jan. 1, 1903	Jan. 3, 1903	30	130
Black Jack SW¼				
	Jan. 1, 1905	Jan. 3, 1905	54	296
White Horse NW¼				
	Jan. 1, 1905	Jan. 3, 1905	54	297
Beanfield No. 17 SE¼				
	Jan. 1, 1905	Jan. 17, 1905	55	65
Beanfield No. 18 NE¼				
	Jan. 1, 1905	Jan. 17, 1905	55	66

Dated at Bakersfield, California, this 14th day of September, 1912.

THE KERN COUNTY ABSTRACT COMPANY,
By H. C. YATES
Secretary.

(Seal)

THE KERN COUNTY ABSTRACT COMPANY
Incorporated
Mar. 29, 1895
Bakersfield, Cal.

[1341]

MR. MILLS:—I now offer in evidence, under the same stipulation, an abstract of mining location notices, from the books of the recorder of the county of Kern, during the same period of time, covering Sections 29, 31 and 33, in Township 30 South, Range 24 East, which is a township immediately adjoining the lands involved in suit, on the east, for the purpose of showing the interest of J. B. Treadwell and certain other employees of the Southern Pacific Company and Southern Pacific Railroad Company, defendants in this suit.

MR. LEWERS:—We are willing that the same stipulation shall apply; but we make the same objections and motion as to this evidence, and the additional objection that it is incompetent, irrelevant and immaterial, because the evidence offered concerns lands situated in another township, and for the further reason that no showing has been made indicating in any way that any of the defendants were connected, directly or indirectly, with the location referred to, if any such locations were made, and no showing has been made that the witness J. B. Treadwell in any way authorized or directed any such locations, or that he had any knowledge of their existence. It will be understood, will it not, Mr. Mills, that in case either of us should discover any error in this abstract, either due to the inclusion of something that does not belong in there or the omission of something that does belong in there, that error may be corrected at a later time?

MR. MILLS:—Certainly.

MR. LEWERS:—And that we reserve the right to

offer any [1342] evidence in connection with that that we may see fit to produce?

MR. MILLS:—Certainly.

MR. MILLS:—I will now read into the record the matters last referred to and offered in evidence, as follows: [1343]

MEMORANDUM ABSTRACT

Of all Notices of Location of Mining Claims recorded in the office of the County Recorder of the County of Kern, State of California, during the years 1899 to 1906, both years inclusive, affecting or in any way relating to Section 29, in Township 30 South, Range 24 East, Mount Diablo Base and Meridian, in the County of Kern, State of California.

Notice of Location	Date	Recorded—Mining Records	
		Book	Page
Pelican Oil Co. No. 6 SW¼	Nov. 6, 1899	Nov. 18, 1899	18	17
Pelican Oil Co. No. 11 SE¼	Nov. 6, 1899	Nov. 18, 1899	18	19
Pelican Oil Co. No. 12 NE¼	Nov. 6, 1899	Nov. 18, 1899	18	19
Pelican Oil Co. No. 13 NW¼	Nov. 6, 1899	Nov. 18, 1899	18	20
Rustler No. 8 SE¼	Dec. 19, 1899	Jan. 13, 1900	18	432
Wagont No. 138 NE¼	Jan. 1, 1901	Jan. 2, 1901	30	69
Wagont No. 139 NW¼	Jan. 1, 1901	Jan. 2, 1901	30	70

Wagont No. 140 SW¼				
	Jan. 1, 1901	Jan. 2, 1901	30	70
Wagont No. 141 SE¼				
	Jan. 1, 1901	Jan. 2, 1901	30	71
White Cloud No. 7 NW¼				
	Jan. 1, 1901	Jan. 3, 1901	27	121
Suprise NE¼				
	Feb. 17, 1901	Feb. 23, 1901	33	398
Argonaut NW¼				
	Feb. 17, 1901	Mar. 23, 1901	34	446
I no SW¼				
	Oct. 24, 1901	Oct. 18, 1901	35	274
Sultan No. 13 NW¼				
	Jan. 1, 1903	Jan. 3, 1903	30	121
Sultan No. 24 NE¼				
	Jan. 1, 1903	Jan. 3, 1903	30	122
Sultan No. 23 SE¼				
	Jan. 1, 1903	Jan. 3, 1903	30	122
Sultan No. 14 SW¼				
	Jan. 1, 1903	Jan. 3, 1903	30	123

[1344]

Notice of Location	Date	Recorded—Mining Records	Book	Page
Globe NE¼				
	Jan. 1, 1903	Jan. 5, 1903	39	81
Uno NW¼				
	Jan. 1, 1903	Jan. 5, 1903	39	82
Monte Carlo SE¼				
	Jan. 1, 1903	Jan. 5, 1903	39	84
Dredger No. 1 SE¼				
	Jan. 1, 1905	Jan. 17, 1905	55	67

Dredger No. 2 NE¼
Jan. 1, 1905 Jan. 17, 1905 55 68
Dredger No. 3 NW¼
Jan. 1, 1905 Jan. 17, 1905 55 69
Dredger No. 4 SW¼
Jan. 1, 1905 Jan. 17, 1905 55 70

MEMORANDUM ABSTRACT

Of all Notices of Location of Mining Claims recorded in the office of the County Recorder of the County of Kern, State of California, during the years 1899 to 1906, both years inclusive, affecting or in any way relating to Section 31, Township 30 South, Range 24 East, Mount Diablo Base and Meridian, in the County of Kern, State of California.

Notice of Location Date Recorded—Mining Records
Book Page
Pelican Oil Co. No. 5 NE¼
Nov. 6, 1899 Nov. 18, 1899 18 17
Rajah No. 13 NW¼
Dec. 14, 1899 Dec. 15, 1899 18 256
Rajah No. 14 SW¼
Dec. 14, 1899 Dec. 15, 1899 18 256
Rustler No. 11 NW¼
Dec. 20, 1899 Jan. 13, 1900 18 431
Wagont No. 146 NE¼
Jan. 1, 1901 Jan. 2, 1901 30 73

[1345]

Notice of Location Date Recorded—Mining Records
Book Page
Wagont No. 147 NW¼
Jan. 1, 1901 Jan. 2, 1901 30 74

Wagont No. 148 SW¼
Jan. 1, 1901 Jan. 2, 1901 30 74
Wagont No. 149 SE¼
Jan. 1, 1901 Jan. 2, 1901 30 75
Jennie Landess No. 1 SW¼
Jan. 25, 1900 Feb. 4, 1901 33 306
O. C. Cather No. 1 NE¼
Jan. 25, 1901 Feb. 4, 1901 33 314
J. A. Watkins No. 1 NW¼
Feb. 12, 1901 Feb. 18, 1901 34 251
Thomas O'Brien No. 2 SE¼
Feb. 12, 1901 Feb. 18, 1901 34 254
Sultan No. 3 NW¼
Jan. 1, 1903 Jan. 3, 1903 30 113
Sultan No. 10 NE¼
Jan. 1, 1903 Jan. 3, 1903 30 114
Sultan No. 9 SE¼
Jan. 1, 1903 Jan. 3, 1903 30 114
Sultan No. 4 SW¼
Jan. 1, 1903 Jan. 3, 1903 30 115
Beanfield No. 5 SE¼
Jan. 1, 1905 Jan. 17, 1905 55 55
Beanfield No. 6 NW¼
Jan. 1, 1905 Jan. 17, 1905 55 56
Beanfield No. 7 NE¼
Jan. 1, 1905 Jan. 17, 1905 55 56
Beanfield No. 8 SW¼
Jan. 1, 1905 Jan. 17, 1905 55 57

MEMORANDUM ABSTRACT

of all Notices of Location of Mining Claims recorded in the office of the County Recorder of the County of

Kern, State of California, during the years 1899 to 1906, both years inclusive, affecting or in any way relating to Section 33, in Township 30 South, Range 23 East, Mount Diablo Base and Meridian, in the County of Kern, State of California. [1346]

Notice of Location	Date	Recorded—Mining Records	Book	Page
Rajah No. 9 NW¼	Dec. 14, 1899	Dec. 15, 1899	18	253
Rajah No. 10 NE¼	Dec. 14, 1899	Dec. 15, 1899	18	254
Rajah No. 12 SE¼	Dec. 14, 1899	Dec. 15, 1899	18	255
Rajah No. 11 SW¼	Dec. 14, 1899	Dec. 15, 1899	18	255
NW 33 NW¼	Dec. 13, 1899	Dec. 19, 1899	18	402
SW 36 SW¼	Dec. 13, 1899	Dec. 19, 1899	18	402
SE 36 SE¼	Dec. 13, 1899	Dec. 19, 1899	18	402
NE 36 NE¼	Dec. 13, 1899	Dec. 19, 1899	18	403
Wagont No. 154 NE¼	Jan. 1, 1901	Jan. 2, 1901	30	77
Wagont No. 155 NW¼	Jan. 1, 1901	Jan. 2, 1901	30	78
Wagont No. 156 SW¼	Jan. 1, 1901	Jan. 2, 1901	30	78
Wagont No. 157 SE¼	Jan. 1, 1901	Jan. 2, 1901	30	79

White Horse NE¼				
	Jan. 1, 1901	Jan. 2, 1901	24	431
W. S. Cather No. 2 SE¼				
	Jan. 24, 1901	Feb. 4, 1901	33	308
W. S. Cather No. 1 NW¼				
	Jan. 24, 1901	Feb. 4, 1901	33	310
O. C. Cather No. 2 SW¼				
	Jan. 24, 1901	Feb. 4, 1901	33	312
Sultan No. 27 NW¼				
	Jan. 1, 1903	Jan. 3, 1903	30	125
Sultan No. 28 SW¼				
	Jan. 1, 1903	Jan. 3, 1903	30	126
Look Out No. 2 NE¼				
	Jan. 1, 1903	Jan. 3, 1903	45	370
Look Out No. 1 SE¼				
	Jan. 1, 1903	Jan. 3, 1903	45	373
Beanfield No. 13 NW¼				
	Jan. 1, 1905	Jan. 17, 1905	55	62
Beanfield No. 14 NE¼				
	Jan. 1, 1905	Jan. 17, 1905	55	63
Beanfield No. 15 SW¼				
	Jan. 1, 1905	Jan. 17, 1905	55	63
Beanfield No. 16 SE¼				
	Jan. 1, 1905	Jan. 17, 1905	55	64

. . . . . .

[1347]

Dated at Bakersfield, California, this 14th day of September, 1912.

The Kern County Abstract Company,
By H. C. Yates,
Secretary.

(Seal)

The Kern County Abstract Company
Incorporated
Mar. 29, 1895
Bakersfield, Cal.

[1348]

LOUIS V. OLCESE

Forty-sixth Witness for the Plaintiff.

Bakersfield, California, September 17, 1912.

DIRECT EXAMINATION.

My name is Louis V. Olcese and I am a stockholder in the Ardizzi-Olcese Company, which leases land from the Southern Pacific Railroad Company for grazing purposes.

I have lived in Kern County for 25 years and have been leasing land from the railroad company about that length of time. My company now holds a lease from the railroad company for 70534.56 acres of land, including land in Township 30-23, for which we pay a rental of about four cents an acre. We hold other leases from the railroad company, the aggregate amount of land under lease by us being nearly 320,000 acres.

We use some of these lands ourselves and sublet others. Whether or not there is green grass on the land depends entirely on the rains. If it does not rain, we get no green grass. As a rule, however, we ought to get some vegetation in January. The highest price we pay for grazing purposes is ten cents an acre and the lowest price about two cents an acre. I think I have paid the same price every year. The fol-

lowing is a copy of the lease from the Southern Pacific Railroad Company to our company:

Form 3385-A LOCAL
(12-6-10-5M-S2596)

LEASE NO. 1418-D V-35-29-21

THIS LEASE, made in duplicate this 15th day of December, 1911, by and between SOUTHERN PACIFIC RAILROAD COMPANY, a corporation, hereinafter for convenience called LESOR, and ARDIZZI-OLCESE COMPANY, INCORPORATED, of the County of Kern, State of California, hereinafter for convenience called LESSEE;

WITNESSETH: That Lessor, for and in consideration of the sum of Twenty-eight hundred Twenty-one & 38/100 ($2821.38) **[1349]** Dollars, to it paid, receipt whereof is acknowledged, and in further consideration of the covenants and agreements to be kept and performed by Lessee as hereinafter written, does by these presents, lease unto Lessee, for the purpose of GRAZING only, but for no other purposes whatsoever, the following described land, situated in the County of Kern, State of California, to wit:

E-½ of Sec. 35 (ex. R/W to Producers Transportation Co.) .....T. 29 S., R. 21 E.,
All Sec. 1 (ex. R/W to Producers Transportation Co.).....
Lots 1, 4, 9, & 10 in Sec. 11, ...T. 30 S., R. 21 E.,
W-½ of Sec. 5; all Sec. 7; N-½,
SW-¼ & W-½ of SE-¼ of Sec. 17;
All Secs. 19, 29, 31; S-½ of NW ¼, SW-¼

& S-½ of SE ¼ of Sec. 33,.....T. 28 S., R. 22 E., W-½ & SE ¼ of Sec. 3; All secs. 5, 7, 9, W-½ & SE ¼ of Sec. 11; W-½ & W-½ of SE-¼ of Sec. 13 (ex. R/W to Producers Transportation Co.).....All Secs. 15, 17, 19, 21 & 23 (ex. R/W to Producers Transportation Co.); All Secs. 25 & 27 (ex. R/W to Producers Transportation Co.); All Secs. 29 & 31, 33 (ex. R/W to Producers Transportation Co.) & All Sec. 35,..T. 29 S., R. 22 E., All Secs. 1, 3, 5 (ex. R/W to Producers Transportation Co.); NE-¼, S-½ of NW-¼, E½ of NE-¼ of NW-¼, E-½ of W-½ of NE-¼ of NW-¼, E-½ of NE-¼ of SW-¼, W-½ of SW-¼, S-½ of SE-¼ of SW¼; SE-¼ of Sec. 7 (except 1,37 ac. leased to Assoc. Pipe Line Co; .35 ac. R/W to Standard Oil **[1350]** Co. & 3.16 ac. R/W to Producers Transportation Co.); All Secs. 9, 11, 13, 15, N-½, N-½ of SW-¼, N-½ of SE-¼, W-½ of SW-¼ of SE-¼ & SE-¼ of SE-¼ of Sec. 17 (ex. .56 ac. R/W to Standard Oil Co.); N-½, E-½ of SW-¼& SE-¼ of Sec. 21 (ex. McKittrick Town Lots); All Secs. 23, 25; NE-¼, N-½ of NW-¼, SE-¼ of NW-¼ & SE-¼ of Sec. 27; All Sec. 33 (ex. 2.67 ac. R/W Standard Oil Co. & 2.62 ac. R/W to Producers Transportation

Co.); N-½ & SE-¼ of Sec. 35,.....T. 30 S., R. 22 E.,
NE-¼ of Sec. 15; NE-¼ of Sec. 23
(ex. R/W to Producers Trans. Co.);
NE-¼ of Sec. 25 (ex. R/W to Producers
Trans. Co.) T. 31 S., R. 22 E.,
S-½ of NE-¼, NW-¼ & S-½ of
Sec. 19; N-½ of SW-¼ of Sec. 29;
S-½ of Sec. 31; S-½ of N-½ &
S-½ of Sec. 33,- T. 29 S., R. 23 E.
SW-¼ of Sec. 1; All Secs. 3, 5, 7, 9, 11,
13,15,17,19,21,23,25,27,29,31,33 & 35. T. 30 S., R. 23 E.
All Secs. 5, 7, 9, S-½ of Sec. 13, All
Sec. 15; E-½ of Sec. 17; All Secs. 21,
23, 25, 27. All Sec. 29 (ex. 2.39 ac.
R/W to Standard Oil Co.); All Sec. 33
(ex. R/W to Standard Oil Co.); All Sec. 35
T. 31 S., R. 23 E.,
All Sec. 1 (ex. 30.92 ac. Deeded to
Standard Oil Co. & .06 ac. R/W to
Standard Oil Co.); All Sec. 3 (ex. R/W
to Standard Oil Co.); N-½ of Sec. 5 **[1351]**
(ex. R/W to Producers Trans. Co.);
All Sec. 11,.....T. 32 S., R. 23 E.,
S-½ of N-½ & S-½ of Sec. 7; All
Secs. 17, 19, 21, SW-¼ of NE-¼,
NW-¼ of NW-¼, S-½ of NW-¼ & S-½
of Sec. 23; All Secs. 25, 27, 29, 31, & 35
T. 30 S., R. 24 E.,
SW-¼ of Sec. 7; All Sec. 15 (ex. 1 ac.
R/W to Standard Oil Co.); All Secs. 17,

19; All Sec. 21 (ex. 1.62 ac. R/W to Standard Oil Co.); All Secs. 25, 27, All Sec. 29 (ex. 2.20 ac. R/W to Standard Oil Co.); All Sec. 31 (ex. 2.71 Ac. R/W to Standard Oil Co.); All Secs. 33 & 35

T. 31 S., R. 24 E.,

All Secs. 3, 5; All Sec. 7 (ex. R/W to Standard Oil Co.); All Secs. 9, 11, 13, 15, 17 (ex. to Standard Oil Co.); All Sec. 19 (ex. 14.17 ac R/W to Sunset Western Ry. Co. & 2 ac. occupied by warehouse & storage yard of Assoc. Oil Co. & R/W to Producers Trans. Co.); All Sec. 21 (ex. R/W to Standard Oil Co.); All Secs. 23, 25, All Sec. 27 (ex. 20 ac. for Pumping Station of Standard Oil Co. & R/W to Standard Oil Co.); All Sec. 29 (ex. R/W to Producers Trans. Co. & Ex. 2.89 ac. R/W to Sunset Western Ry. Co.); All Sec. 33 (ex. 13.45 acres R/W to Sunset Western Ry. Co. & R/W to Producers Trans. Co.); All Sec. 35.....T. 32 S., R. 24 E., Mount Diablo Base and Meridian, containing 70,534.56 acres, more or less, with the appurtenances, for the period from December 1st, 1911, to November 30th, 1912; **[1352]**

EXCEPTING AND RESERVING: All that portion of the above described land lying within two hundred (200) feet on each side of the center line of any or all main line or branch line railroad tracks

of Lessor, or of any other railroad companies, now or hereafter constructed upon or adjacent to the said premises; also the right to use all water, needed for the operation of its railroad, which rises upon, or flows across, said land, and the necessary right of way for the conduct of water across said land in pipes, or otherwise, for railroad uses; also the right to construct, operate and maintain railroad, telegraph, telephone and electric pole lines, oil pipe lines and water pipe lines; also the exclusive right to enter upon the said leased land and prospect for water, oil coal or other minerals, and to mine the same if found, and to appropriate so much of the ground hereby leased as may be required for the discovery, development, production, storage and removal of such water, oil, coal or other minerals; all of which said exceptions and reservations shall inure to the benefit of Lessor, its successors or assigns.

THE LESSEE HEREBY COVENANTS AND AGREES: That Lessee will not prospect for oil, coal or other minerals on said land, nor mine or remove the same if found; nor quarry or remove stone therefrom; nor commit any waste thereon; nor remove any earth or soil; nor destroy, cut or remove any timber, trees or firewood standing or lying thereon; nor permit others, without authority from Lessor, to commit any of said acts.

That Lessee will not hold Lessor, nor Southern Pacific Company, liable for any loss or damage by fire, water, wreck or other casualty, occurring upon

the premises hereby leased, arising from the existence, maintenance or operation of any Railroad, owned or operated by said Companies, or either of them, whether occurring through any fault or negligence of said companies, or either of them, or their employes, or by reason of **[1353]** any imperfections of the railroad, roadbed or equipment operating thereon.

That Lessee will not assign this Lease, or sublet the whole or any part of the property hereby leased, unless written permission of Lessor be first had and obtained.

That Lessee will not break out nor farm any portion of the leased premises without written permission so to do is first had and obtained from Lessor; that at the date hereof there is no cultivated land upon said leased premises, nor any land in suitable condition for cultivation.

That in case Lessee shall, without the written consent of the Lessor first had and obtained, plant any crops upon the land herein described, Lessee shall forfeit all right and interest in and to such crops at the option of the Lessor.

That failure by Lessee to keep and perform any agreement or condition of this Lease shall operate as a forfeiture of the same, and Lessor may thereupon declare this Lease terminated, and take possession of said leased premises, together with all the improvements which may be thereon, without tender, notice or demand.

That at the termination of this Lease either wholly or in part, whether at the expiration of the full term or at any earlier time as herein provided, Lessee will surrender and deliver unto Lessor the quiet and peaceable possession of that portion of said leased premises as to which the Lease shall be terminated.

That in case Lessor shall bring suit to compel performance of, or to recover for breach of, any covenant, agreement or condition herein written, Lessee shall and will pay to Lessor reasonable attorney fees in addition to the amount of judgment and costs.

That upon being notified to exterminate and destroy rodents as required by the Legislative enactment of the State of **[1354]** California, approved March 13, 1909 (Act 2506-A, General Laws of California), Lessee will immediately advise Lessor of the quantity of poisoned grain necessary for the land herein described, and within ten (10) days after receiving poinoned grain from Lessor, Lessee will properly distribute the same over said land.

IT IS MUTUALLY AGREED: That Lessee shall and will keep in repair all buildings, fences and other improvements now upon the land, which are the property of Lessor, and upon the termination of this Lease leave the same in as good repair as they now are, ordinary wear expected; that Lessee may, at or before the termination of this lease, remove from the said premises any other

buildings, fences or improvements which may have been constructed thereon by, and at the cost and expense of, Lessee; provided no default shall at such time exist in respect of any payments or rentals, or in respect of any covenants, agreements or conditions to be kept and performed by Lessee.

That in case said land, or any portion thereof, shall during the term of this Lease, be by Lessor sold or leased for agricultural purposes, or required for its own use or benefit, it may terminate this lease as to such lands on ten (10) days' notice in writing mailed to Lessee at Kern, California; and that upon such termination of the Lease, or any portion thereof, Lessor will refund, and Lessee will accept, the pro rata amount of the rental for the unexpired term of the Lease (provided that if such amount shall be less than One Dollar ($1) no refund shall be claimed or made), and will at and upon such termination quietly and peaceably vacate, and surrender possession of, said premises.

That in case Lessee shall (except by Lessor) be lawfully deprived of the possession of said premises, or any part thereof, Lessee shall notify Lessor in writing, setting forth in full the circumstances in relation thereto, whereupon Lessor may, [1355] at its option, either install Lessee in possession of the said premises, or refund to Lessee the pro rata amount of the rental for the unexpired term of the Lease, from and after the receipt of such notice, computed upon the number of acres the use whereof

Lessee is so deprived, whereupon no claims for damages of whatsoever kind or character incurred by Lessee by reason of such dispossession shall be chargeable against Lessor.

That time and specific performance are each of the essence of this Lease.

IN WITNESS WHEREOF, Lessor has caused its name to be hereunto subscribed by its Land Commissioner, thereunto duly authorized, and Lessee has hereunto affixed its name on the day and year first above written.

SOUTHERN PACIFIC RAILROAD COMPANY
By B. A. McAllister
Land Commissioner

ACCOUNTING DEP'T
Examined, found correct and registered:
C. P. Lincoln

ARDIZZI-OLCESE COMPANY,
INCORPORATED,
Lessee.
By Louis V. Olcese
Pres.

Checked by
JH HW ID
LA

Correct.
F. W. Haswell
Chief Clerk Land Dep't

(Endorsed): GRAZING LEASE NO. 1418-D
SOUTHERN PACIFIC RAILROAD COMPANY
To ARDIZZI-OLCESE CO., INC., Kern, Cal."
[1356]

CROSS-EXAMINATION OF LOUIS V. OLCESE.

We first leased the land in the Elk Hills in 1909. Before that time I think it was leased to Miller & Lux.

After we graze our sheep on these lands, they are taken up into the mountains. This is the usual practice with sheep men in this country. They graze the sheep on the low lands in the Spring of the year and later on when the grass dries up they are taken into the higher country. They can't stay there after the grass is dry on account of the foxtail, and there is no water for them except you buy it and haul it, and that is too expensive.

The plaintiff rests. **[1357]**

E. J. MILEY, called on behalf of the defendants, having been first duly cautioned and solemnly sworn to testify the truth the whole truth, and nothing but the truth, testified as follows:

DIRECT EXAMINATION

By Mr. Lewers:

Q. What is your full name, Mr. Miley?

A. E. J. Miley.

Q. Where do you live, Mr. Miley?

A. Pasadena, California.

Q. And you have an office in Los Angeles, have you not?

A. Yes sir.

Q. Where is your office?

A. In the Trust and Savings Building, 918.

Q. And what is your business, Mr. Miley?

A. Oil Business.

Q. How long have you been engaged in the oil business?

A. Since the first part of the year 1900.

Q. And at the present time, with what companies, if any, are you connected?

The State Consolidated Oil Company.

Q. And what office do you hold in connection with that company?

A. President and Manager.

Q. And that is the company that has its office in the Savings & Trust Building in this city?

A. Yes.

Q. Are you acquainted with the McKittrick district?

A. Yes.

Q. When did you first go there?

A. In the spring of 1900.

Q. And will you state what connection you have had with that [1358] district in the way of development?

A. In the year 1900 I went in partnership with Joseph B Dabney, and we acquired some leases from Clarence Berry and others on section 29 in 30-22, just above the town of McKittrick, and we began operating, and drilled, I think, about ten wells in the year 1900 on that section, and in the year 1901 Mr. Joseph B. Dabney with E. Donahue and a man

named E. M. Wood acquired three sections in the Midway, Sections 19, 31-23 and sections 13 and 11, 31-22, and section 11 was turned over to the Silver Bow Oil Company, a Montana corporation, and we proceeded to drill a well on that Section 11.

Q. Were you connected with this oil company that you have just mentioned?

A. Yes; I was the field manager of the Silver Bow Oil Company, as well as a stockholder.

Q. By Mr. Mills: That Section 11 was in what township?

A. 31-22, and the well was located near the southeast corner of it. We drilled this well down 1425 feet and then abandoned it.

Q. By Mr. Lewers: What did you find in that well in the way of oil?

A. We struck about ten feet of tar sand at a thousand feet. It was tar; it was not productive of oil.

Q. Well, did you do anything further with that well after that?

A. Well, we drilled it down 1425 feet, and had some little showings of oil after that, but nothing to warrant us to try to operate it.

Q. And what did you do with it?

A. Abandoned it.

Q. When was that abandoned?

Mr. Mills: Objected to as immaterial when it was abandoned or whether it ever was abandoned. **[1359]**

A. I think we abandoned that in the spring of

1903, and moved the material and rig over on Section 19 of 30-22, the McKittrick district, and we put it up over a well that had been drilled down to about 800 feet, that is, we acquired a twenty-acre property in that Section 19, 30-22 and attempted to finish this well and another one that had been started on the property before we acquired it, and we had abandoned, in fact, both those wells on account of one of them was so badly "buggered up", as we term it in the oil business—full of tools, and so forth—and the other one was an unproductive well. It had some oil, but it was heavy and would not justify us in operating it as a producing well. We then drilled three more wells on this property during that year of 1903, and shut the proposition down then as we had not gotten enough production to warrant us to operate, at the price of oil.

Q. By Mr. Mills—At the then price of oil?

A. Yes, at the then price of oil. In fact, we hadn't gone deep enough, so that they were not very god wells anyway. So, I then took the rig and material and so forth and went out prospecting on Section 10. Let's see, now, what township. 30-21. There I drilled a well to 1500 feet.

Mr. Mills—I want to interpose an objection for immateriality and irrelevancy to the history of the misfortunes of this witness in 30-21 and in Township 30-22, because I cannot at present see any bearing it has upon the issues involved in the case.

Q. My Mr. Lewers—You may nevertheless proceed, Mr. Miley.

A. This well on Section 10, 30-21, I drilled about 1500 feet, but got no oil. I then moved the rig over onto Section 11 of the same Township, 30-21, and there got some oil, got into oil sand, but the money ran out and the oil business was **[1360]** bad and I had to quit and abandon my location.

Q. When was that?

A. That was in 1904.

Q. Now, you may proceed.

A. During the years of 1905—Well, I made my abandonment there, I guess it was along in 1905, finally. And in 1906 and '07, I was not active in the oil work, except that I was interested in the original property on Section 29, 30-22, and also interested in the lands down in the Midway that I spoke of as Sections 19 and 13, 11. But we shut down our operations; in fact, didn't do much during the years of 1906 and '07.

Mr. Mills—Just a moment. I think the original question put to you, to which your answer should be responsive, was what connection you had with development in the McKittrick field.

A. Yes.

Mr. Mills—I don't know that you were asked for a catalog of your adventures in the field in the Midway and other places remote from this land in controversy, and I shall have to object.

Q. By Mr. Lewers—You may proceed with the

answer as you have given it. I desire you to explain your whole connection with the oil territory in the vicinity of McKittrick, including the Midway or any other territory in that vicinity.

Mr. Mills—Well, I again object to the question, or any answer to it, for the reason that it is wholly immaterial; and I move that the answer so far given be stricken from the record.

Q. By Mr. Lewers—You may proceed.

A. In January of 1908 we began operations on Section 11, 30-22, just south of where I drilled wells for the Silver [1361] Bow Oil Company in 1903.

Q. By Mills—What section was that?

A. Section 19, 30-22.

Q. On the same section you say you started?

A. Yes, in 1908, just adjoining the property I drilled on in 1903. And up to the persent time we have drilled thirteen wells on that property, which now belongs to the State Consolidated Oil Company; and I am also connected with the Providence Oil Company, which is a trustee company of the Dabney Oil Company, and in 1909 I drilled a well on Section 29, 30-22, the location where I first did my operations in 1900. There I drilled a well 3520 feet deep, which we abandoned.

Q. By Mr. Lewers—Why?

A. We didn't get a producing well. And the State Consolidated Oil Company, of which I am

manager, is now drilling a well in the Bellridge district, Section 11, 28-20.

Q. By Mr. Mills—Section what?

A. Section 11, 28-20.

Q. Township 28-20?

A. Township 28-20; yes sir.

Q. By Mr. Lewers—Are you familiar with any portion of Township 30-23 in the Elk Hills?

A. Yes.

Q. When did you first become acquainted in any way with this territory?

A. Why, along in 1901, when I was drilling a well on Section 11, 31-22.

Q. And were you in the Elk Hills at any time prior to January 1st, 1905?

A. Yes.

Q. How frequently?

A. Why, along in the year 1901 and 1902, when we were **[1362]** operating on 11, 31-22, I used to drive over in there every once in awhile. Probably made altogether half a dozen trips around through that country in those years.

Q. For what purpose did you make those trips?

A. Well, I wanted to look the country over with the idea of what it might be worth for oil property.

Q. Did you make any locations in the Elk Hills at that time, at any time.

A. No. I think my name appears on some locations in Section 6, 30-22, and Section 4, 30-22, in the year 1909.

Q. But not prior to 1905?

A. No.

Q. Are you familiar with Section 26 of Township 30-22?

A. Yes.

Q. Did you know a Mr. Berry, the father of Clarence J. Berry?

A. Yes.

Q. Do you know whether he had any development or any construction of any kind in that section or at any other place in the way of oil rigs?

A. Why, he erected some oil derricks in the way of assessment work on that section along the year 1900.

Q. What became of them?

Mr. Mills—Objected to as wholly immaterial.

A. Why, they were abandoned, and blown down afterwards and hauled away for fire-wood.

Q. Br. Mr. Lewers—Was there any production of oil at that place?

A. No sir.

Q. Was there any oil discovered there?

A. No.

By Mr. Mills—When? When do you mean? [1363]

A. Never.

Q. Up to the present time?

A. Up to the present time.

Q. By Mr. Lewers—Were you living in McKittrick at the time when this development was going

on that you have described, from 1900 up to 1903 and '04, Mr. Miley?

A. Yes sir; most of my time.

Q. Most of your time. What was the opinion of oil men at that time, if you know, prior to 1905, with reference to the Elk Hills being oil territory or not?

A. Why, it was never looked on as being classed worth spending money on in the development for oil at that time.

Q. Were there any locations made in there by anybody?

A. Yes; there were locations made all over the country.

Q. By what sort of men?

A. Why, men that followed up where discoveries of oil were made, or other mineral, and they go out and locate wherever there is any open land, with the idea that they might trade on their locations or perhaps something develop that would be beneficial to them at a later date.

Q. What is the term applied to that kind of locators? What are they called?

A. Why, I don't know what you would call them. "Wildcatters", I guess. I don't know what they are termed.

Q. Did any of those locators in the Elk Hills sink any wells prior to 1905, to your knowledge?

A. Not to my knowledge.

Q. Did you ever hear of any wells being sunk out there?

A. Not prior to 1909, to my knowledge.

Q. When was it that attention of oil men was first actually directed to the Elk Hills as to their oil possibilities?

A. Well, that country was not looked on as oil country at **[1364]** all by anybody that I talked with or come in contact with.

Q. Until when? Is it looked on as oil territory now?

A. Well, it is not looked on quite as favorably now as it was perhaps a year or so ago, because it is not looked on now, I don't believe, as being profitable oil territory at the present time.

Q. Well, when was it first looked upon as a prospective oil territory, even?

A. Well, that was, I guess, first, about 1909, to my knowledge, when the Honolulu brought in a well on Section 10, 32-24.

Q. What was the effect of that discovery by the Honolulu on the territory lying to the north and in the Elk Hills—the territory generally, as far as prospecting is concerned?

A. Why, that gave courage to people to take a chance out in there, and they "wild-catted"—made it look possible that there might be oil in that country.

Q. And what was the result?

A. The result was that there was a lot of rigs put in on all open land around there and arrange-

ments made with these locators to get on the ground, and quite a lot of development began after that all over the country there.

Q. Can you mention any companies that went in there into the Elk Hills as the result of that Honolulu excitement?

A. Well, Captain Barnadon and Tom O'Donnell formed the Barnadon Oil Company and put up rigs on a number of sections, that is, a rig on each quarter, but didn't do very much drilling—just put up these rigs to hold the ground; and the Esperanza, that was a Barnadon Company, did some drilling in the Elk Hills.

Q. Do you know in what section?

A. Yes; they drilled in 10, 31-24. They went down about **[1365]** 3500 feet.

Q. What did they get?

A. Didn't get anything. And then, of course, the Honolulu Oil Company drilled quite a bit out in there and got some oil; but they were more over on the Buena Vista Range, they didn't get so much out in the Elk Hills except down in 10. That was out pretty well.

Q. Do you know a company by the name of the Scottish Oil Company?

A. Yes.

Q. Where were they operating?

A. They operated on Section 30-23.

Q. In section 30, was it?

A. Yes.

Q. How deep did they sink?

A. They went down—I take that back. The Scottish drilled on 2, 30-23. They went down 4000 feet.

Q. What did they get?

A. They got some gas at about 2700.

Q. Did they get any oil?

A. No.

Q. What other companies operated in there and sank wells in Township 30-23 or in the immediate vicinity?

A. The Redlands Oil Company drilled a well on Section 30, the same township.

Q. By Mr. Mills—30-23?

A. 30-23. They went down 2830 feet. They got some gas at 1500, quite a lot of gas, but they got no oil. And the Associated Oil Company drilled on section 22 of this township, and in that well they went down 3000 feet, and it didn't amount to much.

Q. By Mr. Lewers—Did they get any oil in that well? **[1366]**

A. No; I don't think they got any oil in that well. They drilled another well on Section 24 of that Township, drilled it to a depth of 3850 feet, I believe, and they had some oil between 2700 and 3100 feet—they had an oil-bearing formation.

Q. Is that a producing well?

A. That well is a producing well, I understand. I have not seen the well operated myself. I have seen evidences of oil there, but I have never seen it operated, so I would not be able to judge how much it is good for as a producer, although I think it is a capac-

ity producer all right. They drilled another well on Section 26 of this Township; they went 4030 feet, and they went through some oil-bearing formation there down toward the bottom, and the well is probably good for, as I understand, about 20 barrels a day.

Q. By Mr. Mills—You say you understand. Do you know, Mr. Miley, what it is good for, of your own personal knowledge?

A. Why, I have not seen the well pumped for a given time to know, but then I judge—

Q. Well, we are not asking what you judge, but I want to suggest that volunteering hearsay evidence is improper.

Mr. Lewers—You will have a chance to cross-examine, Mr. Mills.

A. Well, I see the oil in these different wells. I know the oil was there, and from what I have talked with men working on the wells—

Mr. Mills—I object to anything any men told you working on the wells. It is wholly improper here.

Q. By Mr. Lewers—Proceed, stating what you know of your own knowledge, Mr. Miley.

A. Well, I know they have oil in this well, of high gravity—better than 30 degrees.

Q. Do you know whether they have it in any quantity? **[1367]**

Mr. Mills—Of your own knowledge.

A. Well, I have seen enough of the well to know of my own knowledge that you could not figure on over twenty-five barrels a day for the well as a regular producer.

By Mr. Lewers—Would that amount of oil in a well of that depth be a profitable venture?

A. Not at the present price of oil, or any price that was ever got in California for that grade of oil.

Q. Now, were there any wells sunk by any other companies anywhere in that township? Do you know a company by the name of the Midway Pacific?

A. Yes; on 32.

By Mr. Mills—The Midway-Pacific, is it?

A. That is the Midway Pacific; Midway Pacific Oil Company.

Q. On 32?

A. 32, of 30-23.

Q. By Mr. Lewers—Did they sink a well?

A. I don't know anything about what they did.

Q. That is, you have no knowledge of their work in there?

A. No.

Q. Is the Elk Hills at the present time, particularly referring to Township 30-23, a producing oil territory?

A. No.

Q. You testified a few moments ago that it was looked upon more favorably perhaps a year ago than it is now. Why do you make that statement?

A. Well, the developments at that time that took place in part of the Midway field and working over that way, and the fact of the Honolulu's levelopment on Section 10, and those that began drilling along other parts of the Elk Hills—their formation was encouraging, and during that stage, until they got down

far enough to test out the territory, why it looked pretty good. **[1368]** But after they finally tested it out and tested these sands that they expected to be good producing sand, it didn't materialize as they expected.

Q. And is that the reason why you say the opinion is now less favorable than it was?

A. Yes; that is my reason.

Q. Now, in 1900, up to 1905, what was your impression as to where the oil-bearing formations were in the vicinity of McKittrick?

Mr. Mills—That is objected to because the witness has not qualified himself to answer the question, so far, in his testimony.

A. Why, along the hills in back of the town of McKittrick, on Sections 29, 20 and 19, and 30-22 and 13, 30-21, there is an outcrop of oil-sand and oil seepage, and that same cropping extends to the southeast down as far as Sections 3, 31-22; and we like to stay pretty close to those outcrops and seepages.

Q. By Mr. Lewers—Why was that? What was the general belief at that time as to the general extent of the oil territory?

A. Well, the developments up to that time had—the opinion was, in regard to development, up to that time, that if you got away from those seepages, you got out of the oil zone or it was so deep you could not reach it.

Q. What was the general opinion at that time, as far as you know, as to getting out away from the hills

into the flats, toward the Elk Hills, for the purpose of getting oil?

A. Well, that would be regarded as rank "wild-catting".

Q. Now, you have referred to some work and development down in the Midway that was undertaken by one of your companies. Will you state again when it was that you went down into the Midway?

A. In the year 1901. **[1369]**

Q. And how far from the hills was that location?

A. That well was located right on the edge of the hills that run through Section 11. In fact, we were in little toe-hills yet with that well. But if we had gone much further to the southwest, we would have been out in the flat; and that extension we were on there was looked on as being an extension of the McKittrick field.

Q. Is that the reason you went there?

A. Yes.

Q. Was there any development at that time or any prospecting going on out in the flat in what is now known as the Midway?

A. There was a well being drilled on Section 30, 31-23 by the Transfer Oil Company.

Q. When was that being drilled?

A. About the same time that we were drilling our well on Section 11; 1901 and '02.

Q. Did those people find any oil?

A. No.

Q. How deep did they go?

A. About between 1250 and 1300.

Q. And do you remember any comment being made by any men known to you to be competent and practical oil men, with reference to drilling at those places that you have last mentioned, or anywhere in that Midway flat?

A. Well, there was not much drilling going on in that flat that early. Of course there was some drilling going on there a few years later that I heard several comments on.

Q. When was that that drilling was going on?

A. In the latter part of 1907 and '08.

Q. And what was the comment that you heard on that?

A. Why, that they were blowing in their money—to that effect—they were rank "wild-catters". They felt sorry for [1370] them out there, wasting their money in that flat.

Q. And by what sort of individuals was that comment made; that is, in what business?

A. Well, I have heard men like Tim Spellacy, who at that time had property up on the 25 Hill, which is south of the Midway district, south of the center of the Midway field. Such men as Spellacy and people that were operating up in there on that hill, they used to look down on us fellows in the flat that had anything, as taking a pretty long chance, playing pretty much of a sucker game.

Q. And who is Tim Spellacy?

A. He is interested in a number of oil companies, oil properties, in the Midway field, Mascot in the

25 Hill, and several other companies; and also in the Coalinga field—a man that has been in the business all his lifetime, I guess.

Q. Is he a practical oil man?

A. Yes.

Q. And do you know whether or not he has been a successful oil man?

A. He has.

Q. What was the general opinion, prior to the discovery of the Honolulu well, as to sinking wells away from the line of the hills; that is, what was the opinion as to prospecting out toward the Elk Hills and out toward the Buena Vista Hills?

A. Well, that was not looked on as good judgment, to get out in there for oil.

Q. What was the belief at that time as to the depths that you would have to go if you got away from the hills?

A. Well, it would be so deep that there was no practical means of getting down deep enough to reach oil.

Q. And what was the general belief at that time amongst oil men that you associated with or that you heard discuss that **[1371]** country, as to the Elk Hills being a prospective oil territory or not?

A. No; it was not looked on as becoming an oil territory.

Q. And you say that attention of oil men was first really directed to it at what time?

A. When the Honolulu came in; around that

time. That must have been about the latter part of 1908 and the beginning of 1909, to my knowledge.

Q. Were you acquainted with Professor Josiah Owen in his lifetime?

A. Yes.

Q. And where were you acquainted with him? Where did you see him?

A. I met him first in McKittrick.

Q. Did you ever have any conversation with him with reference to sinking wells in any portion of that territory in the vicinity of McKittrick?

A. Yes; I used to meet Mr. Owen pretty often and discuss the possibilities of oil through there.

Q. Did he ever say anything to you with reference to the Elk Hills?

A. No.

Q. What territory did he discuss with you as to its oil possibilities?

A. Well, the territory in around where we were operating, Section 11, 31-22.

Q. And what did he say to you with reference to that?—in substance, if you cannot give his exact language?

A. Section 11, 31-22.

Q. Yes.

Mr. Mills—That is objected to as immaterial:

Q. Where was this, in the first place, that you are talking **[1372]** about?

Mr. Lewers—Just a moment. You will have your opportunity to cross-examine.

Mr. Mills—I always have an opportunity to cross-examine a witness as to qualifications to state what a man told him, before you ask the question. You have never laid the foundation of the persons present, or the time, or the place where it took place.

Mr. Lewers—I don't have to.

Mr. Mills—I think you do have to.

Mr. Lewers—I am aware of no such rule.

Mr. Mills—Well, that is the rule on testimony of that kind.

Mr. Lewers—I am not seeking to impeach anybody.

Mr. Mills—That does not make any difference, whether you are seeking to impeach or not. I am entitled to know where this conversation took place, and the precise time of it as nearly as the witness can fix it, and who was present.

Q. By Mr. Lewers—You may proceed and state what that conversation was.

Q. By Mr. Mills—Well, I will ask the witness to state first whether anyone was present at the time this conversation took place, and if so, whom.

A. I don't recall of anybody being present.

Q. And whereabouts did it take place?

A. Why, we had several conversations.

Q. Well, that particular one.

A. Well, this one, at Section 11. It was right at the well.

Q. In Section 11?

A. Section 11, 31-22.

Q. And about what date?

A. It was about, I think, the first part of 1902.
[1373]

Q. That is as nearly as you can fix it?

A. Yes.

Mr. Mills—Very well.

Q. By Mr. Lewers—You may proceed. State what those conversations were.

A. Well, this conversation relative to Section 11, 31-22, he said that he thought we would get oil there if we went deep enough, but he thought we ought to have drilled on the other side of our section. We were drilling at the southeast corner, and he liked it better a little back on the hills toward McKittrick. This strike, as he figured it, went sort of diagonally across the section.

Q. Did he explain why he thought it was better to drill on the other corner of the section toward the hills?

A. Well, we were getting out on the edge of the oil strata there where we were drilling.

Q. Now, did you have any other conversations with him with reference to any other wells?

A. Yes. I talked to him regarding a well that we were drilling on Section 10.

Q. 30-21.

A. 30-21.

Q. What did he say about that?

Mr. Mills—That is objected to as immaterial to any of the issues of this case.

A. Why, he stated that I should not have abandoned that well when I did; if I had gone two or three hundred feet deeper, I would have gotten oil.

Q. By Mr. Lewers—Well, do you know whether anybody ever did drill on that place any deeper than you did?

A. Yes; there was a well drilled very close to that location, on Section 3, adjoining section, on the same strike; [1374] drilled to about 2600 feet.

Q. When was that done?

A. That was started in the latter part of 1908 and I think finished up in 1909.

Q. And by whom was that well drilled?

A. The Associated Oil Company.

Q. Did they get anything?

A. No.

Q. Were there any other wells drilled in that vicinity?

A. Yes; there were other wells drilled all around there.

Q. Did any of them produce anything?

A. There was no producing wells brought in beyond the East Puente's holdings on Section 11, 30-21; nothing brought in that was profitable to produce, to operate.

Q. Then, up to the present time, has there been any oil produced from that vicinity where you sank your well in Section 10, 30-21?

Mr. Mills—That is objected to as wholly immaterial, it appearing that the land is some eight or ten

miles away from the lands in controversy in the jammed-up eastern flank of the Temblor Range?

Q. By Mr. Lewers—Answer the question, please. Read it. (Last question read by the Special Examiner.)

A. No.

Q. At the present time, Mr. Miley, is there any oil being produced from any portion of Township 30-23, to your knowledge?

A. No; none being produced now.

Q. And where is the nearest point to that from which oil is now being produced?

A. Well, to the nearest point would be Section 19, 31-23, and Section 13, 31-22.

Q. And when were those wells sunk, if you know? **[1375]**

A. In section 19, 31-23, the first producer was brought in—I think they actually got to producing in 1910. They were in oil there, they knew they had oil, in 1909, but I don't think they got the production out of it until 1910.

Q. Was there any oil being produced there prior to 1905?

A. No.

Q. Now, prior to January 1st, 1905, as nearly as you can fix it from your knowledge of the country, where was the nearest place where oil was being produced with reference to the Township 30-23?

A. The McKittrick, in Section 29, 30-22.

Mr. Lewers—You may examine.

CROSS-EXAMINATION
OF
E. J. MILEY.

By Mr. Mills:

Q. Mr. Miley, you have testified here to numerous wells which were abandoned because of failure to strike oil or for one cause or another. You have not, however, testified to any producing wells in the McKittrick district. Was it your desire to have the impression go upon the record in this case that you want to present a doleful picture of the McKittrick field as an oil business?

A. No sir; not at all.

Q. You recognize, do you not, notwithstanding the catalog of misfortune which you have related here this morning, that the McKittrick is regarded by oil men as the best field in the world, don't you, by those who are competent to know what they are talking about? Is not that true?

A. Well, I can't say that, I can't say that I do know that.

Q. Well, you do know that as a fact, don't you?

A. That it is the best field in the world? [1376]

Q. Yes; the best field in the world.

A. The McKittrick?

Q. Yes.

A. In what way the best?

Q. In every way as an oil producing field. I speak of the McKittrick field in so far as you have led us in your peregrinations around that field from Midway to 31-22.

A. I can't say that I know that the McKittrick is the best field in the world.

Q. Well, don't you know that competent geologists have so designated that field—as the most wonderful oil field that has ever been discovered in the history of the world?

A. Well, I would not go very much on geologists' reports of those fields, because they cannot tell you where the oil is.

Q. They can't tell you?

A. No sir.

Q. You are not a geologist, evidently?

A. Not at all; but I have been practical enough in the business to know—

Q. Confine yourself, if you can, to a response specific to my question.

Mr. Lewers—Finish your answer.

A. (Continuing)—to know that you can only determine where the oil is by drilling.

Q. By Mr. Mills—Now, did I ask you anything about geologists at all?

A. Yes; you asked—

Q. I spoke about competent oil men, didn't I? Oil men. Didn't I use those words?

A. No; you said geologists, too.

Q. Well, I spoke of geologists publishing bulletins, or their published reports; but I am speaking now of competent oil [1377] men, practical oil men. Now, will you answer my question?

Mr. Lewers—What is your question?

Mr. Mills—The witness probably knows. I am not asking you the question. Just read the question.

(Question read by the Special Examiner, as follows: "You recognize, do you not, notwithstanding the catalog of misfortunes which you have related here this morning, that the MicKittrick is regarded by oil men as the best field in the world, don't you, by those who are competent to know what they are talking about? Is not that true?")

A. Well, I can't say that I know that it is regarded as the best field in the world. I know that the wells there are cheap to drill on the oil zone there that we have defined by actual drilling, and that they are good producers.

Q. Well, what would you characterize that field as in comparison with other successful fields that you know of, taking the duration of time for which it has been a producing field, the quantity of oil that is being produced, the number of wells now down in that field, from 30-21 to Midway.

A. Section 11, 30-21, you say?

Q. Yes; from north of McKittrick down to Midway.

A. Why, I consider it a very profitable field.

Q. Well, how does it compare, in your mind, with other fields that you have known in your lifetime as an oil man?

A. It is classed up as a very good field, and—

Q. Do you know of any better field, in your own experience, than that field, which you have con-

demned here by reciting the facts that you did this morning?

A. Well, I didn't altogether condemn the field. I condemned the—The McKittrick field, like any field, you have to do a lot of prospecting.

Q. You don't want it to appear you condemned it? **[1378]**

A. I didn't condemn the field.

Q. You didn't want to destroy the hopes of those oil men who invested money there, but you simply wanted to recount in this record some of the abandoned wells? Is that it.

A. No.

Q. Now, isn't it a fact, to be fair and frank on the record here, that you could, if you were asked the question, fairly recite a great number of successful wells in the McKittrick field?

A. Why, I have some there myself.

Q. You didn't tell about any of those, did you, this morning, in direct examination?

Mr. Lewers—I object to this manner of examination as not being proper cross-examination, as the attention of the witness was directed to certain outlying portions of territory as indicating the development and what development had taken place there, and there was no attempt to go into the question of what was in the McKittrick field proper, whether it was successful or unsuccessful, and that it is an unfair assumption and placing the witness in a false position for counsel to assume that.

Mr. Mills—I want to treat the witness as fairly as I may under the circumstances. I think he tries to be fair in this examination.

Q. You have no complaint to make of my examination, have you?

A. No sir.

Q. We are perfectly good friends, aren't we?

A. Started out so.

Mr. Mills—Certainly. Don't be over-zealous. Mr. Miley will take care of himself.

Q. Now, when you refer to Mr. Spellacy referring to you and other associates of yours who were endeavoring to bring in a well upon what you call the flat, or beyond the relation of the range, **[1379]** as "suckers", did you hear Mr. Spellacy call you a sucker at that time?

A. Yes; I heard Mr. Spellacy express that to me.

Q. That you were a sucker?

A. Yes.

Q. And that was because you went down on the flat, was it, or was it because you were unsuccessful?

A. No; it was because we were drilling in a place where in his judgment, he thought we would never get any oil.

Q. Now, some very fine wells have been produced, however, on the flats, haven't they?

A. Yes sir: There have been wells, in the last few years, brought in on the flats.

Q. And who appears now to be the "sucker"?

A. Of course the tables were changed.

Q. So that, if you had kept on with your operations and drilled further, you would have proved that the allegation was wrong and the "allegator" ought to be defied?

A. We have got some oil out in there now, you know, that we have got in the last few years.

Q. You say you were acquainted with Mr. Owen?

A. Yes.

Q. What was Mr. Owen at that time? What position did he hold?

A. Well, he was connected with the Southern Pacific in the geological department.

Q. And was he operating in the field there for the Southern Pacific Company or any of its allied companies? I mean by "operating", was he working there as a geologist?

A. He came there first to make a report on that McKittrick field there, the outlying country.

Q. Now, I don't know whether I made myself clear or **[1380]** whether you don't make yourself clear. Read the question. (Preceding question read by the Special Examiner.)

A. Yes.

Q. For the Southern Pacific Company?

A. Yes sir.

Q. How long a time did you know him, Mr. Miley?

A. Well, I knew him from the time I first met him there in McKittrick up until the time he died. I used to meet him from time to time.

Q. And you met him about what year?

A. That was about 1902.

Q. Do you know when he died?

A. Yes. I think it was about two years ago.

Q. So that you knew him during the whole time that he was working as a geologist for the company in that field?

A. Yes.

Q. The Southern Pacific Company had some confidence in his judgment, did they not, so far as you know?

A. Why, I don't know anything about it, except that he was working for them during that period.

Q. You had the impression, however, that they had confidence in his judgment, didn't you?

A. Yes; certainly.

Q. Were you acquainted with an associate of Mr. Owens by the name of E. T. Dumble, now the chief consulting geologist of the Southern Pacific Company?

A. I just knew him casually. I met him a few times.

Q. Have you seen him out in the field there, the McKittrick field?

A. Yes.

Q. When did you first see him in the McKittrick field?

A. Well, I don't know. I couldn't say as to that.

[1381]

Q. About the time you saw Mr. Owen the first time?

A. I don't think I saw him as early as that to know him.

Q. Could you tell somewhere near the time that you first saw Mr. Dumble in or around McKittrick?

A. I don't think that I met Mr. Dumble to know him until about 1908.

Q. You don't know, then, whether he was in the field before that time or not?

A. I couldn't say to that; no.

Q. Did you know a man by the name of J. B. Treadwell?

A. Yes.

Q. What was he doing up there at the time you knew him?

A. Why, he was representing the Southern Pacific Oil interests.

Q. And when did you first meet him, Mr. Miley?

A. 1900.

Q. What point was he operating from? Where did he have his office?

A. I am not sure but what he had his main office over in the Kern River field, because that is where they were operating very extensively.

Q. Did you see him over around McKittrick a great deal?

A. Oh, yes.

Q. What was he doing when you saw him?

A. He was looking after their oil developments, interests, there.

Q. Do you know whether he at that time had any

lands in his own name, in the name of J. B. Treadwell, around there?

A. Yes.

Q. You have seen his name there on maps?

A. Yes.

Q. Did you know then, or do you know now, that he was [1382] operating in lands for his principal, the Southern Pacific Company, under the guise of the use of moneys of his own?

Mr. Lewers—I object to this line of examination, on the ground that it is not cross-examination of anything that was brought ou in direct.

A. No.

Q. By Mr. Mills—Now, did you have any confidence in the judgment of Mr. Treadwell as a practical oil geologist?

A. Why, I didn't know very much about his knowledge as a practical oil man, or a geologist, so far as that is concerned.

Q. Have you any confidence in the judgment of Mr. E. T. Dumble as an oil man and geologist?

A. I don't know anything about Mr. Dumble.

Q. Just barely met him? That is what you mean?

A. Yes.

Q. Did you ever come in contact with either Mr. Jewett or Mr. Blodgett, of the firm of Jewett & Blodgett, while you were there, in the early days?

A. Yes.

Q. Did you know Mr. W. E. Youle, another practical oil man, who has been in that field since 1889?

A. Yes; I knew Mr. Youle.

Q. Was Mr. Youle regarded as a good practical oil man?

A. Why, I cant' say that he was.

A. Did you so regard him?

A. Why, I didn't know enough about him to pass an opinion, really.

Q. You didn't know as a matter of history that Mr. Youle had gone into that field in the earliest time of its development and that upon his judgment millions of dollars of money were invested down on those flats? Did you know that as an historical fact?

A. I know that he didn't spend any millions of dollars **[1383]** down on the flats.

Q. I didn't say that he spent millions of dollars, but that upon his judgment millions of doliars were spent.

A. No; I can't say that I did. His operations were confined up to the hills there in the outcrops along Sunset.

Q. You know, however, that he is regarded by oil men as a very keen, practical man of sound judgment in oil matters, don't you?

A. I can't say that I do.

Q. Have you any reason to feel differently towards him yourself?

A. Why, yes; I know that during his operations with Jewett and Blodgett in Sunset, during those early days there, he spent their money like a drunken sailor—which he was, most of the time.

Q. You say Mr. Youle was a drunken sailor most of the time?

A. Well, he used to keep pretty well loaded up with whiskey during the whole time of his operations out there in Sunset in the early days. That is his reputatiton all over the field.

Q. Did you know, as a fact, that Mr. Youle was a man of over fifty years' experience in the oil business in this country and that today he is retired, here, with a vast fortune which he has accumulated in practical oil work?

A. I don't know how much he has as a fortune.

Q. Have you ever had any trouble with Mr. Youle personally?

A. No.

Q. At page 1048 of the reporter's transcript in this case, Mr. W. E. Youle stated as follows: "I say a geologist will say of those hills toward the Elk Hills and that whole country 'there is a good oil territory,' but as to the depth I don't see how they can tell." Do you agree or disagree with that statement of Mr. Youle? **[1384]**

A. What year did he make that statement?

Q. That statement was made as of a time prior to January 1st, 1905.

Mr. Lewers—But the statement was made this year.

A. Yes; but I mean he referred to it as in what year?

Q. By Mr. Mills—Prior to January 1st, 1905.

A. Yes. Well, a man—I don't see where he had any foundation for making such a statement.

Q. The question was whether you agree with the statement.

A. I don't agree with it.

Q. You clash with distinguished authority, then. At page 1028 of the transcript, Mr. Youle also testified: "well, I will make the statement broad, and I will defy anyone to prove to the contrary: You show me an oil seepage and with proper development I will show you an oil field; and if you can find any instance it is not so, it is something I don't know of." Do you agree with that statement?

A. I don't agree with it.

Q. Do you know of any oil seeps in what is known as the Elk Hills?

A. I know of an outcrop over toward the Honolulu well, right where they drilled the well, on Section 10, That is all I know of.

Q. In 32-24?

A. 32-24. It is really a gas "blow-out" there on some outcropping.

Q. How extensive is it, Mr. Miley? You have visited the spot, I suppose?

A. Yes.

Q. How extensive is the evidence of the gas blow-out?

A. Oh, it just covers over, I would say, an acre there, probably, or so. [1385]

Q. Is there any evidence there of any waste of oil?

A. No. That is, it looks like it might have come

out there at some early day and dried up, maybe—gas blow-out.

Q. You have been over that field pretty extensively, haven't you, all around there?

A. Yes.

Q. In the Elk Hills, you say, half a dozen times?

A. Yes.

Q. Do you know of an oil seepage or gas blow-out in Section 32 of 30-24 in the Elk Hills?

A. No; I don't.

Q. Did you ever hear of it?

A. Why, I have heard that there was such a seep there, but I have never seen it—exposure.

Q. Do you know of any oil sands—What was your answer to that?

A. I said I have not seen it but I have heard there was such a one there.

Q. When did you first hear that?

A. I don't know. I have heard it spoken of different times.

Q. Well, can you remember about the first time you heard of it?

A. No: I cannot.

Q. Was it as early as 1901?

A. Why, it was around somewhere in that neighborhood, of 1902 or so; in there; 1901.

Q. Did you visit the oil seep yourself?

A. No; I never saw it.

Q. How close did you ever get to that oil seep in 32 when you went into the Elk Hills?

A. Well, I have been on Section 30, and I have been on **[1386]** Section 34, and 26, 22, and 20, and 24, to my knowledge, because I know those different wells.

Q. That is in 30-23?

A. 30-23.

Q. When did you first visit those sections you have described?

A. Well, I have driven over that section as early as 1901 or '02.

Q. And is that the only place in the Elk Hills that you have visited?

A. No; I have been over the whole range.

Q. At different times?

A. At different times.

Q. Do you know of any dry oil sands in Sections 18, 35 and 36, in Township 29-21, east?

A. No. What is that again?

Q. That is in Sections 18, 35 and 36 in 29— 21 east.

A. 21-29?

Q. Yes?

A. Oh, yes; sure.

Q. Do you know about those oil sands up there?

A. Yes; that is McKittrick; sure I know about that.

Q. That is McKittrick? 29-21 is McKittrick? Do you mean the McKittrick field or McKittrick—

A. Well, 29-21, you said, in Section—

Q. In Section 18, 35 and 26.

A. Wait a minute, now. 29-21.

Q. 18,35 and 36.

A. I don't know anything about 18. I know there is some—35, 18? I don't think that amounts to much in there. There is some little exposures in there.

Q. Well, you know of some oil sands there? [1387]

A. There is some little indications there, yes.

Q. When did you first know about those?

A. I don't know about 18. I know along in 35. I don't know the exact section, but I know along in there there is some exposures.

Q. I say, when did you first know that?

A. Why, along in 1900, 1901.

Q. Now, do you know whether, in the immediate vicinity of McKittrick—that is, in certain portions of 30-22—that there are large showings of liquid asphaltum oozing from the ground, at any time after you came into the country?

A. Yes.

Q. Do you know of an oil sand cropping in Section 5 of 30-22?

A. No.

Q. Are you acquainted with the spot where the railroad running into McKittrick through Section 14 in 30-22 intersects the axis of the hills there?

A. Section 14?

Q. Yes; where the railroad comes in.

A. Yes.

Q. Of 30-22. Now, you have been in there yourself, haven't you?

A. Yes sir.

Q. Do you know of any cropping of oil-sands or indication of waste of oil there?

A. I have heard them speak of that; but there is nothing there I would consider as any oil-sand or any seepage of oil.

Q. You just heard them talk about it?

A. Heard them talk about it and I have seen it, but I say I don't consider that a cropping in 14.

Q. You have seen what? The place, or seen the oil sands? **[1388]**

A. Seen the place and what others have talked of regarding this place as being oil-sand.

Q. And you say it is not an oil-sand?

A. I don't consider that an oil-sand, no, in place.

Q. In place?

A. In place; yes.

Q. What do you mean? That somebody came there and dumped some there?

A. Sure, the stuff flows from the hills there and banks up.

Q. What hills?

A. From McKittrick. The railroad goes up the ravine.

Q. Didn't you see a cropping of oil-sand where the hill was cut into there?

A. Yes, but I don't consider that oil-sand in place. That has washed down and eroded down from the hill a little higher back.

Q. I am speaking of the east bank where it goes

through. The railroad cuts through there in a north and southerly direction, doesn't it?

A. Yes.

Q. Now, on the east bank of the hill there?

A. Yes; I have seen it.

Q. Does that from the east bank, do you claim, come from over here, or from there?

A. From the east bank; but I don't consider that an oil-sand cropping.

Q. Now, if there is an oil-sand cropping out of the east bank of that hill, where does it come from?

A. Well, it is porblematical, in my opinion, how it got there, if there is any there.

Q. If Mr. Owen, whom you spoke of having conversations with, stated that he found oil-sands cropping there, would you believe [1389] him?

A. Why, if he said there were oil-sands cropping there, that it would be his opinion as to there being oil-sands there, why, I would have some faith in them being there; yes.

Q. Do you know Colon F. Whittier?

A. Yes.

Q. Would you believe him if he stated he found oil-sands there?

A. Well, I don't know whether I would bank very much on his opinion about there being oil-sand there.

Q. Do you know Captain Frank Barrett?

A. No; I don't know him. I know of him, but I don't know him.

Q. You don't know enough about him to form any opinion as to him or his character?

A. No.

Q. You are able, from your experience as an oil man, to recognize oil-sands, are you not, when you see them?

A. Why, if they have got oil in them, yes.

Q. Well, if it showed the evidence of having had oil in them, would you know it?

A. Yes; if the sands were stained, that would be evidence enough to me that they had been in contact with oil.

Q. You have been all over the Elk Hills, you say, over the whole field? Did you so state?

A. I have been generally over the field; yes.

Q. Now, why was it that you never discovered any oil-sands in 32, if you were all over that field?

A. Well, I might not have gotten in there at that particular point.

Q. The reason you assign in that case is because you were not in there? [1390]

A. I don't know that I was on that particular spot. If I was, I don't recall seeing any oil sand there? Perhaps I might not have been there, if there was any there.

Q. Do you know of any oil cropping in 31-21 on Section 14?

A. Why, I know there is some oil-sand croppings over in that country.

Q. In that township, you mean?

A. I know there is some croppings in Township 31-21, but I don't know exactly what sections they are on.

Q. Now, do you know of an oil cropping or oil seepage in 31-22 on Section 22?

A. No; I don't know of any seepage there.

Q. Do you know of a seepage on Section 34 of the same township?

A. No; I don't.

Q. Do you know of any oil seepages in that township?

A. I don't know of any seepages. I know there is an exposure up there, but I have never seen any oil seeping out?

Q. What do you mean by "exposure"?

A. I mean the sand that crops out in there, that we try to bank on it, but I never saw any live seepages in that country.

Q. Well, you have seen oil-sands, then?

A. Well, I couldn't say they were oil-sands. I have seen sand that crops in there that we tried to follow.

Q. Why do you try to follow them?

A. Well, they crop up there in the hills and we figure that they might have contained oil, and if they did, why, getting them further down on the dip they would contain oil now.

Q. Do you know of an oil-sand in Township 31-24 in Section 1, about half a mile east of a point on Section 29? **[1391]**

A. The only one I know is the one right next to the —No; I don't know that one.

Q. Well, do you know one that you have already spoken of on Section 9—was it?

A. It is near the Honolulu well.

Q. What section is that on?

A. The Honolulu well was on 10, but that is on the other township, 30, 32-24, that I know of. That was a gas blow-out.

Q. In 32-24?

A. In 32-24, yes. I don't know of the one you refer to in Township 31-24.

Q. Do you know of any seepages or oil-sands in 32-22 in Sections 1 and 2?

A. I know of the sand croppings up in there; yes.

Q. Do you know of any oil-sands cropping in Section 6 of the same township?

A. No. You mean that is over in the next township?

Q. No; in the same township.

A. That would be six miles away.

Q. Do you know of any oil seepages in Sections 21, 22 and 26 of the same township?

A. No.

Q. What township are you looking at?

A. 32-22.

Q. Yes; that is right. Have you referred to 32-24 of Section 11 in your testimony? Is that the place you spoke of as near the Honolulu well?

A. No; that was in Section 10 of 32-24.

Q. Do you know of a gas blow-out or oil-sand cropping in Section 11 of 32-24?

A. Well, that cropping I referred to there. I

don't know whether that is in 11 or not; but I know it is in close proximity [1392] to the Honolulu well.

Q. And which direction from the well is it?

A. It would be kind of east, I think, or northeast.

Q. Now, can you find Township 11, Range 24, on that map? That is down in the San Bernardino meridian.

A. What section?

Q. Section 2.

A. Yes.

Q. Do you know of a seepage just south of the standard line there in that section?

A. Yes; I know the seepages along in there. That is considered the Sunset district.

Q. Do you know of any pitch springs that were ever discovered down in there before your time?

A. I know that there was asphaltum used to bubble out there.

Q. Now, generally, along the line extending between McKittrick and Sunset, you know of blow-outs and asphaltum oil in many other places than those which have been mentioned?

A. Why, to my knowledge there is no outcrops excepting what is along in the Sunset district and the McKittrick district. I don't know of any real live outcrops between those two fields.

Q. Do you know of any croppings of any kind that would be regarded as oil-sands between the two fields along the line of the contact with the range?

A. None other than I have mentioned.

Whereupon the further taking of testimony herein was adjourned until 2 o'clock P. M.

On Thursday, December 5, 1912, at 2 o'clock P. M., the further taking of testimony herein was resumed pursuant to the adjournment: Willis N. Mills, Special Assistant Attorney-General, appearing on behalf of the plaintiff; and Charles R. Lewers, Esq., [1393] appearing on behalf of the defendants.

Whereupon, E. J. MILEY was recalled and cross-examination resumed as follows:

Q. Mr. Miley, you first went into the oil business in 1900? Is that right?

A. Yes sir.

Q. The spring of 1900?

A. Yes sir.

Q. And you were in the oil business continuously from that time to now, with the exception of two years, 1907 and '08?

A. Yes sir—1906 and '07.

Q. In 1906 and '07, you were not active in the business?

A. No sir.

Q. From such experience as you have had in the McKittrick Midway field, you have now come to the conclusion, have you not, as an oil man, that the best wells in that field are sunk and produced down away from the line of contact, on the flat? Is that true?

A. No; not altogether so.

Q. Well, the largest producers are down on the flat?

A. The wells that have come in and produced the largest have been down on the contact; yes sir.

Q. Where are the majority of the productive wells in that field now? On the flat or on the flank of the hill?

A. Of McKittrick?

Q. McKittrick or Midway field. The field you described this morning.

A. In the McKittrick they are up on the—

Q. Speaking of the field now particularly.

Mr. Lewers—Allow the witness to finish his answer.

[1394]

Mr. Mills—I asked the question as to the whole field.

Mr. Lewers—Perhaps it cannot be answered in the whole field the same way. Allow him to finish his answer.

A. There is a distinction. In the McKittrick is a little different proposition than in the Midway.

Q. What do you say as to the McKittrick.

A. In the McKittrick the principal producing wells there are on the ridge on an overturn there, and they have some wells out on the flat of the McKittrick.

Q. How are the wells on the flats compared with the others?

A. That is hardly figured—that hasn't anything to do with the McKittrick. That is another proposition. There is a fold in there. But as far as the Midway is concerned, they have brought in some very

good wells right on the top. For instance, the American Oil Fields on Section 36, 31-22, brought in a well at about 900 feet that flowed 25,000 barrels a day for quite a while. One of the biggest wells brought in was the American Oil Fields in Section 36.

Q. When was that?

A. I think that was in 1910.

Q. And how long did it flow at that rate?

A. I might be mistaken on that one here. No, it was 1910, I think. How long did it flow?

Q. Yes—at that rate of 25,000 barrels a day.

A. At 25,000 barrels a day, it did not flow any great while.

Q. Well, how long?

A. Well, it must have flowed twenty or twenty-five thousand for two or three months, and then the well gradually went down. Of course, we have some wells further down at the contact down in the Midway field, but none of them that really stood up or averaged much better than that, with the exception [1395] of the Lake View.

Q. Well, was the Lake View on the flat?

A. Well, that would be sort of in the toe hills.

Q. Lake View is on Fractional Section 25?

A. Yes sir.

Q. And that well for awhile flowed as high as 80,000 or 90,000 barrels a day?

A. I understood that it averaged 40,000 or 50,000 for quite awhile.

Q. It was brought in in the middle of March and flowed continuously with varying amount of production until sometime in November or December of that year?

A. Until Decoration Day, whatever that is—not Decoration Day. I mean Admission Day. In September. I remember I was at the well on the morning and it was a holiday, and it quit.

Q. What do you say as to the difference by comparison between the productiveness of wells on the flat and those on the line of contact down near Midway?

A. Of course, if your wells are out on the flat, on the same contact—for instance, you have more drain or more presure on your wells and you catch the oil-sand deeper in the well and catch it on that same contact, and you would expect to get a more long-lived well on the deeper well.

Q. Now, was it on the Midway where you were drilling down on the flat when Mr. Spellacy thought you were making a mistake?

A. That was in the basin of the Midway; that was what they looked on as the flats; yes.

Q. And you now have come to the conclusion that that was the proper thing to do, nothwithstanding the criticism made by some of the people on the hill there?

A. As far as that Midway is concerned, yes. That has been demonstrated. [1396]

Q. Now, if you knew that a geologist, as early as

1900 or 1901, had so advised a company that he was working for to cease drilling in the line of contact and come down on the flat, would you regard that man as a man of good judgment, in your opinion?

A. Well, if he knew that the contact extended out there, of course—the geologist cannot see into the ground; he don't know those things. You have to determine by actual drilling whether the contact extended out that far.

Q. Do you know whether Jewett & Blodget in 1900 were engaged in the asphalt business?

A. Yes sir.

Q. And that they had a number of small wells in the Sunset Midway fields along the line of contact —shallow wells—for the purpose of getting oil to flux their asphaltum?

A. In what section?

Q. Along the Midway and Sunset field there.

A. I know that Jewett & Blodget had wells in Sunset and they were extracting this heavy stuff and turning it into asphaltum. And I also know that they attempted to extract some heavy oil or asphaltum at McKittrick, and hauled oil from Los Angeles up there to use for a flux. They did not have any oil in that district at that time.

Q. At that time Jewett & Blodget were principally in the business of extracting and mining asphalt for the market?

A. Yes sir.

Q. They were not going out to get liquid oil to market so far as you know?

A. No; they were not in the fuel or marketing business; they were in the asphalt business.

Q. Mr. Youle testified at page 1037 of the reporter's record, as follows: "Q—In 1890 were any wells sunk under you direction? A—We commenced right away and started two drilling [1397] rigs right away. Q—And were those wells successfully discovering oil? A—We found oil in every one of the first three. The first three wells that we drilled on Section 28 struck oil. Q—That is, at Sunset? A—Yes. Q—Now, how many wells were sunk there altogether under your direction or under your advice? A—Oh, there was probably fifty. Q—And that had been a commercially successful territory? A—Why, no. It was not, Blodget, Beale, the Company, wanted me to drill those shallow wells and get a thick heavy oil, and asphalt was worth then $30 a ton in New York, and produced what they called liquid maltha and let the light oil alone. If I told them once I told them a hundred times we could go out there and get more oil in one well than they could out of fifty; because I knew it was dipping down there and there was no question about it, it was no guess-work at all. But they wanted this heavy oil, and we drilled new wells out a little bit in front, and it was too light for any use for asphalt, but they didn't want anything but the asphalt business and they wanted this liquid maltha for the purpose of flexing the hard asphalt; and that is why there was so many of these small wells directly in the out-crop. Not from my advice. I would have

given anything in the world to have had them allow me to go down there and drill a well where I ought to. It just seemed as though I was out of my latitude there. I knew where I ought to go, but they wouldn't allow it. They wanted these shallow wells." Do you regard the advice which Mr. Youle gave to Jewett & Blodget at that time as good advice?

Mr. Lewers—Objected to as not cross-examination of any matter brought out in direct examination, and it appears that the very question asked was long prior to the time when this witness testified to having been in that territory at all.

A. As the thing has developed now, it was darned good advice. **[1398]**

Q. By Mr. Mills—Mr. Youle testified that in his experience he had drilled 176 producing wells, averaging $20,000 a piece—

Mr. Lewers—In cost.

Mr. Mills—which would be something over $3,000,000, and I believe he further testified that at no time did he drill an unsuccessful well where he started it and where he was permitted to place the wells. Taken in connection with his vast experience of over fifty years in the oil business in this country, in Mexico and in Canada, and his pioneer work in the Midway-McKittrick field, and the results of the predictions made by Mr. Youle since you have gone into the oil business, would you say that he had been a successful oil man?

Mr. Lewers—To which we object on the ground

that the question is not cross-examination of any matter brought out in direct examination of this witness. On the further ground that the question does not recite the entire record of all the testimony concerning Mr. Youle, and is an attempt on cross-examination to bring in the qualification of a witness offered on behalf of the government, without bringing in all the information on which any such judgment can be passed. On the further ground, that it is a matter for the court to determine, and not for the witness.

A. Well, that is a pretty hard question to answer just from that question.

Q. By Mr. Mills—Do you think it is difficult to answer that question?

A. He may have drilled all these wells and it is a question of what the returns that came from them amounted to.

Q. I think I have stated that they were successful and producing wells—productive wells.

A. I am familiar with the wells that he drilled in the Midway and Sunset field, and I cannot say that those wells have turned out as being a howling success. [1399]

Q. You are not inclined to give Mr. Youle any credit for being a successful oil man?

A. Yes, sir; I am. I am not prejudiced at all. I am simply stating things as I know them.

Q. What reason have you for characterizing Mr. Youle the way you did this morning, and refusing to give Mr. Youle credit for what he has actually done in the way of making a success in the oil business?

A. Why, I am just stating conditions as I know them to exist in that country.

Q. Did you ever have any trouble with Mr. Youle?

A. None at all. I know that Jewett and Blodgett were the pioneers of that Kern county field, and they spent thousands and thousands of dollars up there and spent it under Mr. Youle's advice and under his management, and Jewett and Blodgett never made any money out of the oil business.

Q. Don't you know know as a matter of fact that Jewett and Blodget never put down a well on the adice of Mr. Youle, but contrary to his advice?

A. I don't know that.

Q. Why do you make the statement that they spent the money on his advice, if you don't know it to be a fact?

A. Well, all I know is that he was running the business there.

Q. You know he was actually in charge of the drilling operations, don't you?

A. I know he had charge of the drilling operations.

Q. But you don't know as a matter of fact, as both he and Mr. Blodget testified, that these wells were put down under the direction of Jewett & Blodget? That is, the place was marked? Now, why do you say that Mr. Youle has not been successful because these wells were put down under his direction? [1400]

Mr. Lewers—To which I object on the ground that

it is a mis-statement of the testimony of the witness Blodget. He testified, on the contrary, that Youle was the man they had in charge, on whose advice they relied.

Q. By Mr. Mills—I am referring now to the Midway field.

A. Of course, there is no question that Mr. Youle is a man of experience in the oil business. I don't say that he is not. He has had a lot of experience and undoubtedly he has got some very good judgment.

Q. He probably was in the oil business before you were born?

A. Sure he was, if he was in that long himself.

Q. And you don't want to bank your experience as an oil man against the experience of Mr. Youle, do you?

A. I bank my experience—yes; I would take my own judgment before I would take his, if I wanted to spend some of my money.

Q. You think you know more about the oil business than Mr. Youle?

A. I don't say that.

Q. Did you ever have any trouble with Jewett & Blodget at all?

A. No sir.

Q. Are your relations with them friendly now?

Mr. Lewers—Mr. Jewett is dead, is he not?

A. The old gentleman is dead; yes sir.

Q. By Mr. Mills—When did you first ascertain, Mr. Miley, that you were to be called as a witness

here? When were you first interviewed as to what you would testify to in this case by any agent of the Southern Pacific Railroad Company?

A. I don't know as I had any particular interview. I met the counsel this morning. **[1401]**

Q. Did you ever talk with the agent of the Southern Pacific Company before you met Mr. Lewers this morning?

A. I met this gentleman one day—

Q. By Mr. Lewers—Mr. Luke?

A. Mr. Luke—perhaps a month or six weeks ago, or maybe longer than that.

Q. By Mr. Mills—Did you know what you were wanted to testify to?

A. No.

Q. Did you have any idea what it was about?

A. It was in connection with the character of this land over in there as to what it was fit for as oil land.

Q. Have you any relations in a business way, outside of becoming an occasional passenger on the trains with the Southern Pacific or the Southern Pacific Railroad Company or the Southern Pacific Company?

A. No.

Q. Have you any business relations whatever with the Associated Oil Company?

A. Yes.

Q. Of what nature are your relations?

A. We are selling them oil and doing business with them.

Q. Who is the superintendent of that company—the Associated Oil Company?

A. In the Midway field?

Q. Yes.

A. L. J. King.

Q. Is Mr. King a particular friend of yours?

A. Yes sir; he is a friend of mine.

Q. You are quite intimate, aren't you?

A. Yes sir.

Q. You know, don't you, Mr. Miley, that the Associated Oil **[1402]** Company is owned by the Southern Pacific Company? That is, by a majority of the stock in it?

A. I understand that is the case.

Q. Have you ever discussed with Mr. King the nature and the character of the testimony you were to give here in this suit?

A. No sir.

Q. Did you ever discuss with him the different wells that you have testified about this morning over in the Elk Hills?

A. I have talked with him about how they are getting along with these wells; yes sir.

Q. When did you begin to talk with him about it?

A. As soon as they began to drill over there.

Q. Did you arrive here this morning?

A. Yesterday morning.

Q. When did you first see Mr. Lewers?

A. This morning, about fifteen minutes or so before I arrived here.

Q. Whom did you talk with yesterday about this case?

A. Mr. Luke informed me yesterday that I wouldn't be wanted here. He didn't say anything about the case at all, but he informed me in the morning that I wouldn't be wanted here, and he called me up on the telephone about noon and said they didn't want me till this morning, and maybe not then, and I said, "Try and get me on today, because I want to get away."

Q. You arrived yesterday morning?

A. Yes sir.

Q. And you have been accessible all the time for the purpose of this case since you arrived here?

A. Yes sir.

Q. Do you know enough about the Associated Oil Company's business to know whether they use standard tools or a rotary [1403] rig on the wells you have testified about this morning on the Elk Hills?

A. Yes sir.

Q. What do they use?

A. They use rotary rigs.

Q. It is a fact, is it not, Mr.—

A. They may have had standard part of the time. They had rotary, but they may have changed over to standard.

Q. Isn't it a fact that on the rotary rig they use cement—liquid cement?

A. With a rotary? They pump liquid cement. They get into a formation that is cavy. They pump

in a sticky, 'dobe mud to plaster up the walls to keep the formation from caving.

Q. That has a tendency to mask the true formation?

A. Yes, but a person who is attending to his business on the rotary takes his samples all the time and keeps a good line on the formation they are going through.

Q. It is possible, however, that the drill going through the oil sand, and their using this liquid mud and pumping it in, it might pass through the oil sand and the driller not know it?

A. Yes sir; that has been done with the standard tools as well as the rotary.

Q. I am asking you about the rotary.

A. It is possible.

Q. Do you know whether or not in any case in the Elk Hills where a rotary was used that the driller actually passed through oil sand and went for several hundred feet beyond it without knowing it?

A. In the Elk Hills?

Q. Yes.

A. No; I don't know of any case like that.

Q. Do you know of a case over in Section 11, Township 31- [1404] 24—in the Buena Vista Hills—opposite the Honolulu, where the drillers went through with the rotaty rig to oil sand and didn't know it and afterwards pulled back and found the oil?

A. I don't know of that particular case.

Q. The K. T. & O. well on 32-24?

A. I am not familiar with that instance.

Q. Do you know whether the same thing happened on Section 32 in Township 31, South, Range 23 East, to the Associated Oil Company, where the geologist of the company insisted that the drillers had gone through the oil sand and made them pull back and developed in one instance a 600-barrel well and in another instance a 200-barrel well where the drillers swore there was no oil sand?

A. I don't know that the geologist made them pull back. I know they were testing out that territory and did pull back and wash out the sand and brought this in after they had drilled beyond the particular strata that they tested out afterwards. Of course, in this rotary business, they can wash, if they want to test out the formation they have gone through,—all they do is to pull back and pump water in and wash out the mud, and that frees up the formation or washes it clear again, and if there is any gas or oil there it breaks in. And after they had gone beyond some oil strata they afterwards backed up and tested it out. For what reason, and so forth, I don't know anything about that.

Q. Are you acquainted with Section 26 in 30-23?

A. Yes.

Q. Do you know whether the Associated Oil Company has brought in any wells that are producers in that section?

A. They brought in a well on 26.

Q. When was that produced?

A. That was called a finished well or producer there over [1405] a year now. It produced a while and then shut down, and this well on Section 24 has also been brought in as a producer.

Q. What production did that well give on Section 26 per day in barrels?

A. 20 or 25 barrels.

Q. How do you know that? Do you know whether it has ever been thoroughly tested out?

A. I know that as far as I saw the well in operation and—

Q. Just answer my question. I ask you whether you know that it has been ever thoroughly tested out?

Mr. Lewers—You asked him how he knew it. I submit that the answer is responsive. The question is double.

A. I saw the well producing, and from what I saw of it in operation I judge it to be something in that neighborhood of a well. And, furthermore, I was told by Mr. King—

Q. By Mr. Mills—You needn't state what Mr. King told you, because that would be hearsay evidence. Your principal information came from Mr. King in the matter rather than from your own personal observation, didn't it?

A. Not altogether. I spent some time over there when they were working on this well.

Q. How much time did you spend there?

A. I have been at the well several times, and I

stayed there one afternoon, all night and part of the next day.

Q. What did you stay there so long for?

A. I wanted to see how they were getting along with these different wells they were working on.

Q. You remained there practically two days to watch this one well?

A. No; I was watching the other wells they were working on.

Q. In the same section?

A. They were working at that time on a well in 24 and a well **[1406]** in 22, and a well on Section 30 in 30-24.

Q. That well on Section 30 in 30-24, what have you to say about that well? Do you regard that as a producing oil-well?

A. One of the times that I was there they had encountered about 13 feet of sand, approximately, and the well blew out and gave evidence of making a pretty good well. It seemed to be more of a blow-out than anything else, and they went ahead and drilled it deeper. At that time it was 2713 feet. They afterwards drilled the well to 3836, looking for something better. As to how much of a well it amounted to, I don't know.

Q. Do you think it ever went as high as two or three hundred barrels a day?

A. I don't think from the evidence I saw of it—I don't think it would stay doing that; no.

Q. Would you be surprised to learn that it had

run two or three hundred barrels a day by actual measurement?

Mr. Lewers—For how long? One day?

Q. By Mr. Mills—Well, for a sufficient length of time to guage it.

A. From what I saw, I would be surprised; yes.

Q. Are you acquainted with a man by the name of James F. McCay?

A. Yes.

Q. What is his business?

A. At the present time he is employed by the Associated Oil Company.

Q. He is their head trouble man, isn't he? He looks after their wells when they are in trouble?

A. He was the tool-pusher, but I think now he is in charge of a string of tools, working on a well.

Q. Was he at any time their head trouble man, as it is called—taking care of their wells when they get into trouble? **[1407]**

A. I didn't know him as filling that capacity.

Q. Mr. McCay testified on page 684 of the transcript as follows: "A—That was on Section 30. Q—Was that in 30-24? A—I think so; yes sir. Q—East of the well that you have first referred to? A—Yes: It is east of it. Q—Now, will you state whether you were there when it was first put on the pump? A—Yes sir. Q—And did you measure the oil that was flowing from the well when you were there? A—Yes sir. Q—How soon after the well began to flow did you measure it? A—Well, we had

been working with it. I had charge of the well, at the time, perforating it and getting it to produce, and I had probably been over there maybe four or five weeks working with it, baling it, before we put it on the pump. We put it on the pump, and it had been pumping, I think, a couple of days, when I took a gauge of it. Q—How much of the casing was perforated? A—Pretty near 800 feet, I believe. Q—And between what depths? A—Well, somewheres in the neighborhood of 36 or 3700 feet up to 2700." Now, Mr. Miley, you are familiar enough with that well to give figures of the depths. Will you state now for the benefit of this case how many feet of casing had been perforated and between what depths?

A. Well, they did not have any oil until 2700 feet, I think it was 2700 feet that they struck this blowout that I referred to a while ago: and if they had any other pay stuff, it must have been from there down to the bottom.

Q. From what figures, do you say?

A. From 2700 on.

Q. 2700 to about 3800 feet, I think you said?

A. They drilled to 3726.

Q. "Q—Now, did that well increase its rate of production from the time it was first put on the pump until some time thereafter? A—Up until the time I gauged it. That is as far **[1408]** as my knowledge went with it. After I gauged it that time I have not been there since, nor ain't seen the well

since. Q—And when you put it on the gauge, how much oil was it producing? A—It was producing at the rate of 406 barrels a day." Would you call that a successful well?

A. I would.

Mr. Lewers—Why don't you read the rest of what Mr. McCay said; that it dropped off after that?

Mr. Mills—I will let you read it. I am not going to read this entire testimony to him.

Mr. Lewers—I notice that you read the good part.

Mr. Mills—If you find it here I will ask it.

Mr. Lewers—It is there on the cross-examination.

Q. By Mr. Mills—Do you know, Mr. Miley, whether the Scottish Oil & Gas Company on Section 20 of 30-23 was drilling at that time with a rotary?

A. They started that well with standard tools, I know.

Q. Did they ever put it on a rotary?

A. I think they afterwards put in a rotary.

Q. At what depth did they start with the rotary?

A. Well, it was approximately somewhere about 2000 or 2500 feet, if I remember right.

Q. Wasn't it exactly 2790 feet?

A. I don't know for sure. I know they got down somewhere in the neighborhood of 2000 feet. It might have been over or it might have been less—when they put the rotary in.

Q. In all these cases where the rotary rig was used you say it is possible that the driller might have gone in by the oil sand on account of the mud

masking the true formation, and get no results, where he actually passed through prolific oil sands?

A. Yes; they can plaster up the oil sand and shut it off with rotary mud. **[1409]**

Q. And is it possible, from your experience as a practical oil man, to conceal the true production of an oil-well while they are drilling it—conceal the fact whether a well is a good well or a bad well?

A. When you are drilling a well a man can't tell anything about what the well is in drilling. He has got to test it out and put it on the operating list before you can determine what it is.

Q. Is it possible for the driller to know that he has a good well and conceal the fact from any one else, unless the other party would go in and test it out himself?

A. It would all be guess-work. You can't test a well without actually operating it.

Q. For how long?

A. Well, to know and have a conservative idea of what a well is good for, it ought to be on the steady operating list for 30 days, because these wells, when they come in first, have a heavy gas pressure, and lots of times will produce more oil the first few days than after they have been pumped for a while.

Q. Assuming that the well was tested out for a minimum time of 30 days, is it possible to conceal the fact from the world that a well is actually a good producing well?

A. Well, if you can shut the blooming thing

down, it is concealed. You can't tell what it is good for if it is not operated.

Q. Can you plug it so that it can be concealed?

A. You might fill up the hole, I suppose, but if it is a well that won't flow, you simply shut it down and no one knows what it is good for.

Mr. Lewers—Is this preliminary to showing that the Scottish Oil Company knew it had a good well and deliberatively sacrificed it? **[1410]**

Mr. Mills—I don't know that I have to answer every frivolous question that is asked.

Mr. Lewers—It is pertinent in the line of your examination.

Q. By Mr. Mills—Mr. Miley, you have spoken of a well or work of yours that you started on Section 29 in 30-22 and in Sections 3 and 10, I believe, of 30-21?

A. Section 3?

Q. Wasn't it 3 and 10?

A. A well in 10.

Q. In 30-21?

A. 30-21.

Q. Was there another one there?

A. There was another one in 11. There was 11 in 30-21 and 11 in 31-22.

Q. There was one drilled by the Associated in Section 3, wasn't there, that you mentioned?

A. Yes; Section 3 in 30-21.

Q. And one that you drilled in 10 in the same township?

A. Yes.

Q. And one in 29 of 30-22?

Mr. Lewers—That is right.

A. There are a lot of wells in 29.

Q. By Mr. Mills—This is the one you first spoke of as having been abandoned. Which side of the anticline were those three wells—the McKittrick anticline? Were they west or east?

A. In Section 29?

Q. Yes.

A. Now, wait a minute. You say I drilled a well in 29.

Q. You spoke early in your testimony—

A. I drilled a well in 29, 3520 feet deep, and then I drilled—

Q. Let us go back to the well that you abandoned? **[1411]**

A. I abandoned that one on 29.

Q. Is that the one you first spoke of in your testimony where you acquired a lease from a man named Barry?

A. Yes sir: That was on that property. That is where I drilled the first ten successful wells.

Q. Was that particular well that you abandoned on the west or east side of the anticline?

A. I don't know; nor nobody else, I guess. We had shallow oil around that well.

Q. How about these wells in 3 and 10 of 30-21? Which side of the McKittrick oil outcrop was it?

A. They were on the extension of the McKittrick

outcrops, and whether the sands pinched out there or whether they are southwest of the anticline, I don't know.

Q. You are not positive that they were on the northeast side?

A. I don't know.

Q. Isn't it generally a fact that wells which have been drilled on the southwestern side of the McKittrick oil crop or in that vicinity have not been as successful as the wells drilled on the northeast side?

A. That is right.

Q. They are generally uniformly successful on the northeast side of the outcrop?

A. Before the sands pinched out, yes.

Q. And you say you don't know whether the wells which you described in Section 3 and 10 and the one in 29 were on the southwest side of the anticline?

A. Well, now, you want to keep those ones in 10 and 3 away from this one in 29.

Q. Take 10 and 3, then.

A. The formation there is—that really was an extension **[1412]** of the McKittrick stratum, and they have never been able to extend that any further along that general trend. So, therefore, the sands may become barren and the formation may pinch out, and still it might be back to the northeast. But they have not found anything to the northeast along there in the same line of this McKittrick stratum, and therefore it has probably pinched out.

Q. Have you any opinion now yourself as to whether it is southwest or northeast of the oil crop there?

A. Well, it is out of the oil zone.

Q. Does the fact that those wells were failures have any bearing, in your judgment, as to whether the Elk Hills are favorable for the accumulation of petroleum?

A. No; nothing to do with the Elk Hills. Not very much.

Q. Has it anything at all to do with your opinion of the Township 30-23—the south half of Township 30-23—some 8 to 12 miles distant?

A. No.

Q. You believe a well in Section 26 in Township 30-22—

Mr. Lewers—He didn't speak of a well; he spoke of some rigs.

Q. By Mr. Mills—Yes; some rigs. Was there any drilling done there at all?

A. With those rigs that I spoke of there was nothing done at all.

Q. Didn't do anything at all?

A. In connection with those rigs, no.

Q. Did you ever drill a well there?

A. There was no well drilled there.

Q. Did you drill a well there?

A. No.

Q. So the fact that you didn't get oil was due to the fact [1413] that you didn't drill a well?

A. I didn't say that I put up those rigs. They were put up by Berry.

Q. You don't want that to have the appearance of having a bearing on the question, whether there is oil in the Elk Hills—the fact that they didn't drill there?

A. It simply establishes the fact that the people that put up the rigs didn't think enough of the country there to go ahead with them.

Q. Where? In Section 26?

A. Down in the flats there below the McKittrick strike.

Q. That was your reason for giving the testimony?

A. I gave the testimony that after the excitement got over they abandoned the thing.

Q. They didn't drill there at that time?

A. No; didn't drill there at all.

Q. And they did not prove the territory by actual drilling?

A. There was a well drilled there in the last two years.

Q. I am speaking of the testimony you gave this morning at some length about carrying out some drilling rigs there—building some rigs there. That is what I am referring to.

Mr. Lewers—What is the question?

Mr. Mills—I am asking him if he desires to be understood that because they did not drill there was any evidence that there wasn't any oil in the Elk Hills?

A. It would have some bearing on the man's judgment of the country. You generally feel your way out from your actual discovery. You generally feel yourself away. Now, they didn't think enough of the country, working away from the actual development in McKittrick, to go ahead with it. So they abandoned it.

Q. Who was it that put those rigs out there? **[1414]**

A. Clarence Berry's father.

Q. Did you have any financial troubles at that time—troubles in getting money?

A. No.

Q. Had all the money they needed?

A. I don't know anything about that.

Q. Do you actually know as a matter of personal knowledge yourself why those rigs were abandoned?

A. Abandoned because they didn't think the ground was any good.

Q. Is it regarded as good oil land now?

A. I don't think so.

Q. You think not? You think Section 26 is regarded as poor land for oil?

A. It is problematical. 26, 30-22, is not proven territory. It is questionable territory.

Q. You wouldn't wholly condemn it, would you?

A. I wouldn't want to spend very much money in there for a while until I knew something more about it than I do now.

Q. Well, it was never proven by the fact that they put up some rigs and didn't drill?

A. So far as the actual knowledge that there was not or was there, is concerned, it was not proven; no.

Q. So that the adandonment of the well was due to the fact that it was never proven?

A. No; they abandoned it because they didn't feel justified in spending any money on it.

Q. What year was that?

A. 1901 or '2.

Q. Berry had no experience in the oil business, did he? He was a Klondike miner, wasn't he?

A. He was getting quite a bit of experience at that time. **[1415]** He had a couple of hundred thousand dollars in McKittrick.

Q. He made a couple of hundred thousand dollars in the Klondike.

Mr. Lewers—Let him finish his answer.

Q. By Mr. Mills—Isn't it true that he was not an experienced oil man?

A. He had the money to buy experience.

Q. He had the money which he earned in the Klondike, but he was not an experienced oil man?

A. Not at that time himself personally.

Q. Do you know from your own personal knowledge that the well spoken of by you on Section 22 or 30-23 of the Associated Oil Company has gone 3000 feet deep?

A. Do I know that it has gone 3000 feet deep?

Q. Yes; to your personal knowledge.

A. I didn't measure up the hole myself.

Q. Isn't it a fact that it is less than 3000 feet today?

A. No; I am pretty well convinced that it is about 3000 feet deep.

Q. Do you give your testimony from your own personal knowledge of it or from hearsay?

A. From my observation. I know when I go into a rig and they are running a rotary and pull out the drill pipe and stand it up in the rig, I can tell pretty closely how deep it went into the hole.

Q. Did you watch it to see how deep it went?

A. When I go into a rig I always look at things.

Q. I am asking you if in this case you watched the rig to see if it was 3000 feet or not?

A. Yes; I was around that rig—

Q. My information is that it was less than that. I want to know if it is a fact. **[1416]**

A. From what I see of the well I know it is pretty close to 3000 feet.

Q. Have you been pretty intimately acquainted with the work done by the Associated Oil Company up there from the time they went into the Elk Hills?

A. I have kept tab on what they have been doing there as well as I did on all the rest of the "wild-cat" drilling, on that flat.

Q. Their work has been done there intermittently? They have not prosecuted it with great vigor, but did the work from time to time?

A. No; when they first went in there they prosecuted the work pretty continuously until they quit.

Q. When did they quit?

A. Well, they stopped operations, it must be, about a year now.

Q. Do you mean to say that they quit finally?

A. I mean that they had to stop their drilling.

Q. Hasn't there been other periods of time when they stopped their drilling and resumed it again?

A. Not on all the rigs.

Q. Well, they have done it on some of the rigs, haven't they, in the Elk Hills?

A. Well, those strings that they had running there were kept in operation pretty continuously, barring break-downs and waiting for material.

Q. Do you know that of your own personal knowledge?

A. Yes.

Q. You say that in the course of twelve years you have been a half a dozen times in the Elk Hills, and yet you are not able to state with definite certainty that they have continued that work without interruption from the time they began on those rigs [1417] over there till they quit a year ago? Is that true?

A. Yes; I know that they kept that rigs running pretty continuously, because—I wasn't over there—but I came in contact with the men working there.

Q. Then you are basing it on hearsay?

A. The keeping of the rigs working?

Q. Yes.

A. Well, some of it; yes.

Q. That is what I thought. Do you know whether the Standard Oil Company have put in some wells in the Midway district out on the flat upon the advice of Dr. Starke, their geologist?

A. Yes.

Q. You know also that they are big producers?

A. Yes; I know they have some fine producers there.

Q. Do you know whether the Standard Oil Company owns any land in the Elk Hills?

A. None to my knowledge in the Elk Hills. They reach over there to the Buena Vista.

Q. Isn't it a fact that they own Section 36 in 30-23?

A. Yes; it is marked here on the map "Standard Oil Company."

Q. Do you know whether the Standard Oil Company is an oil company?

A. How is that?

Q. Do you know whether the Stanard Oil Company is an oil company?

A. Yes.

Q. You went over there, you say, in 1902 and '03 in the Elk Hills for the purpose of looking over it as a prospective oil territory as an investment for yourself. Is that correct?

A. Yes. **[1418]**

Q. As early as 1900 you heard of this oil seep in 32 of 30-24?

A. No; I didn't hear that.

Q. Didn't you so state this morning?

A. I don't think so. I said I heard of oil seeps over in there. I didn't know exactly whether they were on that section or not.

Q. Did you think it had sufficient bearing on the question of your investment for you to make an investigation of these oil seeps to determine whether you would buy land in there or locate in there?

A. I didn't understand that there was any oil seeps in Section 32, 30-23.

Q. 30-24, Mr. Miley?

A. Yes; that is right. The only exposure that I have ever seen and figured that it is an exposure, is the one that I spoke of this morning close to the Honolulu well on Section 10.

Q. That is not responsive, Mr. Miley. I will reframe the question. You stated this morning on your direct examination, I think, or, at least, on cross-examination, that you had heard of these oil seeps in the Elk Hills as early as 1902 and 1901, and that you were in there as late as 1903 for the purpose of examining the territory as a prospective investment for oil purposes.

A. No; I was in there in 1902 at the time they were drilling the well in Section 11.

Q. You stated in 1903 also. Do you want to correct that.

A. When I referred to 1903 is when we abandoned Section 11 and moved over to McKittrick.

Q. I asked you specifically the question when you

were in there—I think on cross-examination—and I also asked you when you heard of these oil-seeps in the Elk Hills, and you said [1419] you knew of the oil-seeps before the time you went over there to investigate the land as prospective oil territory.

A. Yes; I know them by hearsay.

Q. I asked you why you didn't make an examination of them if you went in there for the purpose of making oil investments?

A. I was just looking over the country to see how it looked.

Q. You didn't want to make a detailed investigation of it?

A. I was not banking anything on these reports about what they had seen over there in the way of croppings in there.

Q. Then your trip over there for the purpose of investigating the possibilities of oil as an investment did not really amount to a detailed examination, did it?

A. Not a close detailed examination.

Q. If it had, you would have gone and examined these seeps, wouldn't you?

A. I don't know whether I could have found them or not.

Q. Assuming that they were there, would you have gone and examined them?

A. I didn't have any information as to the location of these seeps to take me to them, or anyone else that claimed they had seen them that could take me to them.

Q. Did you ever try to ascertain where they were from anybody?

A. Yes: I never could find out where they were.

Q. Did you do that before you went to look at the land?

A. I talked to some of these "wild-cat" fellows that locate land everywhere, where these seeps were, and tried to find them and couldn't find them.

Q. You tried to find them on the day that you went to look at this land?

A. I could drive from this well. It wasn't very far over in the hills, yes. **[1420]**

Q. You did make an effort to ascertain where these seeps were at the time you examined the land for the purpose of the investment?

A. Yes.

Q. And how much search did you make to find this seep which has been described as being several hundred yards long in Section 32?

A. I might not have been on that section. It is a pretty big country over there.

Q. How much of an investigation did you make to find these seeps?

A. I don't know just exactly. As I said, I went over there several days riding around there at different times.

Q. You didn't make any very extensive search for seeps, did you?

A. Not very, because I didn't have much faith in the seeps being over there.

Q. No. That is what I thought. You were willing at that time to condemn the Elk Hills as an oil territory with the limited knowledge you had after one or two trips that you made in there in 1902 or '03?

A. Not altogether from my trips there.

Q. At a time when you made no effort, substantially, to find where this seep was in Section 32 or any other seeps?

A. The seep did not make it oil territory, as I said this morning.

Q. Well, it would have a sufficient bearing on you as a man of means investing your money and jeopardizing your capital to induce you to make some preliminary investigation of it?

A. It would be some inducement, yes.

Q. You did a little "wild-catting" yourself in that country, didn't you? **[1421]**

Mr. Lewers—In what country?

Mr. Mills—In the McKittrick district.

A. "Wild-catting" on 10, as I spoke of a while ago.

Q. And didn't you wild-cat over on Section 22 in 30-22, you and some other "wild-cats"—E. J. Miley et al.?

A. We put up a rig there; we didn't do any drilling.

Q. Well, you "wild-catted" there.

A. That has been in the last few years. We got a little courage here when the last oil excitement came on in 1908, and we blew ourselves for a standard rig and done some assessment work.

Q. He was a more ferocious "wild-cat" than in early years.

Mr. Lewers—They all were.

Q. By Mr. Mills—You did some "wild-catting"?

A. Yes sir.

Q. You don't condemn a man for going out and prospecting and proving territory?

A. If you didn't "wild-cat" you wouldn't have any oil wells.

Q. And when we use the term "wild-cat" we use it as a euphemistic term?

A. A wild-cat well is a prospect hole, and we use the term "wild-cat" instead of "prospect" well, and the further it is away from development the wilder it is.

Q. That is it. The more wild it becomes. All right. That is all.

REDIRECT EXAMINATION
OF
E. J. MILEY.

By Mr. Lewers:

Q. You say that there was a well actually sunk on Section 26 in Township 30-22?

A. Yes. **[1422]**

Q. By whom was that sunk?

A. Newman-Morris Oil Company.

Q. And when was that sunk?

A. The rig was put up there in 1909, I think, and just started in to do their assessment work; and in

1910 I think they began actually drilling to test the territory.

Q. And how deep did they sink?

A. Approximately 2700 feet.

Q. Did they find anything?

A. They found a little heavy oil at about 1200 feet, but not enough to make a producing well.

Q. And nothing below that?

A. Nothing below that.

Q. What is the present condition of that well?

A. It is abandoned at the present time. They became financially involved and stopped the operation.

Q. From your experience as a practical oil man, Mr. Miley, would you say that a gas seep or a gas blow-out is an indication of the presence of oil in paying quantities?

A. Not in paying quantities. It would have a tendency to encourage you to prospect, but it does not absolutely indicate that there is oil there in paying quantities. The formation may all be broken up and the oil scattered out, and you can't get enough of it in one place to make it productive or profitable.

Q. What is the recognized test for determining whether a territory is oil territory?

A. I can tell you a little story to illustrate that pretty well. It was told by a man who was a good citizen in this town, who had a lot of good experience.—

Mr. Mills—These stories cost us twenty cents a folio. Make it brief. [1423]

A. R. H. Herron, who is known through oil circles as an oil operator and an oilsupply man. He told this story. When he was running the R. H. Herron Company, supplies, in a store down here in Los Angeles street, a man had some prospective oil territory that he thought of drilling, and he wanted to get a geologist to report or an expert to report on the ground before he started in, and he was referred to Mr. Herron as being a man of wide experience who could recommend him a good man to make this expert examination. So he called on Mr. Herron and Mr. Herron heard his story and he said "Now, I have got the expert for you. He never fails." "All right; I would like to meet him." He said "I will introduce you to him. He is right close here now." He stepped out of his private office and went back to the back of the store and introduced him to a string of tools, and he said "Here is the expert that never fails, and the only one."

Q. By Mr. Lewers—Do you agree with that story?

A. I agree with it.

Q. You were asked whether or not Dr. Starke of the Standard Oil Company had recommended sinking certain wells in the Midway field. Do you know whether or not Dr. Starke ever made any examination of the Elk Hills?

A. I don't know that he made an examination of the Elk Hills.

Q. Now, referring to Section 14, Township 30-22, where the railroad cut goes through, you spoke of

certain indications of asphaltum or oil there, and said they were not in place. Will you explain what you meant by that.

A. I meant that it was a formation that had washed in there from higher up on that formation.

Q. From up in the direction of McKittrick?

A. Yes; up there where the oil was oozing out of the **[1424]** outcrops, there being a ravine down there, and the water during the floods and heavy rains—we sometimes have cloudbursts that sometimes wash railroads out—and I meant by that that this stuff had been carried in or floated in from the places higher up on that formation.

Q. Have you ever seen any indications of that same float being carried at any other place?

A. Yes.

Q. Where?

A. You can find it along this same ravine and all those canyons all along in the McKittrick outcrops you find the float.

Q. Have you ever observed at any place successive layers of this asphalt float and then sand and then asphalt float again?

A. Yes; on Section 22 I tried to encourage myself enough there when we were figuring on spending some money on 22 in 30-22. There is some holes dug in on that section where we located it and it showed asphaltum, and they done this work and I presume recorded it as making a discovery. But some of the men that we had employed—one of our

foremen—he went and done some digging for us and afterwards I went in and passed on his work and told him he was simply digging in the float, and that it was nothing but float. There was no outcropping there at all in my opinion, and that was a pretty good indication of it, because it looked like a nice blow-out—a nice outcrop. It was a sort of a gully that was washed over, and it could fool one very easily.

Then there is another indications in those hills where you can find this stuff washed in from the McKittrick seepage.

Q. In your opinion would the character of that alleged outcrop in Section 14 in the railroad cut be apparent to any competent geologist? Would any competent geologist know that [1425] that was float?

A. Yes sir; he could pass on it by digging into it and examining it. He could determine what it was.

Q. You have spoken of those abandoned derricks that were put on Section 26, 30-22, by the father of C. J. Berry. Is Clarence Berry a practical oil man?

A. Yes; he is now.

Q. And to your knowledge has he ever attempted to take up any of that land that his father had those rigs upon?

A. Not to my knowledge.

Q. Now, you have spoken of keeping in touch with the operations of various companies that were drilling in there in the Elk Hills and elsewhere.

Will you state what your practice was with respect to keeping track of the development in that country generally in the vicinity of McKittrick?

A. I kept constantly in touch—that is, by conversations with the different ones that were operating on these various wells, when I saw them, and in addition to that I would, every so often, go around and see for myself what was going on and keep track of the developments of the entire field.

Q. Now, you also have spoken of going over the Elk Hills. Did you make some examinations of any other country around McKittrick?

A. I went over the Midway field and around the McKittrick flats and the Temblor country, and on beyond that way, and the Bellridge country and the Devil's Den.

Q. You went over that entire country quite generally

A. Yes sir.

Q. Was that your custom off and on from the time you first went into the McKittrick?

A. Yes sir. **[1426]**

RECROSS EXAMINATION
OF
E. J. MILEY.

By Mr. Mills:

Q. Speaking of that Newman-Morris well on 26, Mr. Miley, in Township 30-22, that was located on the southwest quarter of that section, wasn't it?

A. The southwest quarter and nearly in the southwest corner.

Q. Now, as a matter of fact, at 1080 feet to 1190 feet they struck 1100 feet of oil sand which produced 40 barrels a day? Isn't that true?

A. Why, I couldn't say.

Q. Have you ever examined the log of that well?

A. I never examined the log.

Q. Are you prepared now to swear under oath that it did not pass through an oil sand 1110 feet?

A. I couldn't swear that they didn't pass through, but I would be willing to take chances on its not producing 40 barrels a day and keeping it up 30 days.

Q. Do you know whether the log of that well shows that it passed through 110 feet of oil sand?

A. No sir; I don't know whether it shows that or not.

Q. And that it is estimated at 40 barrels flow of oil at that point?

Mr. Lewers—I object to that—

Mr. Mills—I am asking the question whether he knows that.

Mr. Lewers—He says he never saw the log. If you have the log produce it and account for it properly by some one who knows—some one who put the log together.

A. Do I know whether that is true?

Q. Yes; do you know whether that is true?

A. From my experience I know it is not true. From my ex- **[1427]** perience in that territory I don't

believe it. That is, I don't believe it will produce 40 barrels a day.

Q. Do you know whether it did produce 40 barrels a day?

A. No; it did not produce 40 barrels a day.

Q. Do you know W. K. Dennis of McKittrick, California?

A. I do.

Q. Is he the man that drilled the well?

A. He was working on the well most of the time.

Q. Was he on the well at the time they passed from 1080 feet to 1190 feet?

A. He was there.

Q. I recall that little story you told illustrating what the only expert was. You mentioned Mr. Herron; that Mr. Herron showed him some oil tools?

A. Yes sir.

Q. Did it occur to you that any point was added to the story by the fact that Mr. Herron was selling oil tools?

A. No; that had nothing to do with it.

Q. He is not in the oil tool business?

A. He is not now.

Q. He was at that time?

A. He was; yes.

Q. I can well understand how he could refer to that as the only expert.

A. He didn't mean it that way. I know Herron too well. **[1428]**

DAVID KINSEY

Second Witness for Defendants. Los Angeles. December 5, 1912.

Direct Examination.

My name is David Kinsey and I live at Maricopa, California. I have lived in the west side oil fields about 17 years. At present I am the superintendent of the Midway Valley Oil Company with headquarters at Maricopa.

I have been in the oil business since 1896 and during that time have been engaged in one way or another with the actual production of oil and have been a driller and superintendent of oil properties.

I am familiar with Sec. 12, 31-24. This section is in the east end of the Elk Hills. I first went into this section in 1908 for the purpose of drilling a well there for the Midway Valley Oil Company. In drilling this well I was superintendent and also was partly interested as owner. I was present during the drilling of this well and had active charge of it.

We started this well May 7, 1910, and drilled it to a depth of 4850 feet by the last of November, 1911. We used a standard rig entirely and did not employ a rotary at any time. We paid very close attention to the formations passed through, and I was watching all the way for the oil. I kept a log of this well which was made up from the daily reports furnished by the drillers. I was familiar with every foot of that well during the time it was being drilled.

From the surface down to 200 or 250 feet we had a

blue shale and clay mixed. From 200 to 210 feet we struck a water strata, or about there. From there on down to about 2,000 feet we had clear sailing with shale. At about 2,000 feet we struck a stratum of sand without water. From that down to 3700 feet deep it was almost all blue shale and clay. At 3700 feet we had a **[1429]** showing of gas and iridescent colors of oil on the water that came out of the well, but no oil of any kind. At a depth of 4,800 feet we struck a water strata that carried a heavy pressure of salt water. From that on to 4850 we had a blue shale and clay mixed and no other showing at all. The gas pressure disappeared.

This showing at 3700 feet which I have referred to as an oil showing was simply a color that came in the shale similar to that produced by pouring a few drops of coal oil on water. It was not black but it was an oily substance and it is found in the shale very often. But there was no oil sand in any part of the hole from the top to the bottom.

When we reached a depth of 4850 feet I decided that there was no use of going any further as there was no chance of getting oil. We therefore pulled out the pipe and abandoned it altogether. I never started any other wells in that vicinity and have since abandoned the porperty entirely.

I was in the Elk Hills in Sec. 11, 31-24 in 1902 or 1903. I never passed over Township 30-23 to know it, but probably I have driven over it. In January, 1909, I started drilling a well on the Midway flat in

Sec. 32 of T. 31-23. While we were drilling this well and were down to a depth of 1800 feet, Timothy Spellacy, who has been engaged in the oil business in that country for a number of years, told me that we were crazy for putting a well down there. Some weeks later after we had finished the well and it was flowing four or five hundred barrels a day, I asked him what he thought about our being crazy for drilling at that place and he told me that he never had any idea that we could get oil there. I first began work in that field in 1896 for Jewett & Blodget at "Old Sunset." They were drilling wells there for oil on Section 13. W. E. Youle was in charge of their drilling operations at that time and remained in charge of their drilling **[1430]** operations for three years after I went to work for them. I was acquainted with Mr. Youle during this time and worked for him as a driller. I never heard him say anything about going out on the flats or further out to sink wells.

The attention of oil men, as indicated by actual drilling and development work, was directed toward the Buena Vista Hills and Elk Hills first in 1908 and 1909. Prior to that time the general belief amongst oil men from as early as 1900 and from that up to 1905 particularly, was that the oil zone was pretty well up in the hills from Sunset to McKittrick.

During the last five or six years the knowledge of oil men concerning the conditions of that country has increased greatly and much territory is now considered as possible oil land or prospective oil land

that would not have been considered in the light of the knowledge then existing. Up to 1905 the general opinion among oil men in that country was that the appliances then in vogue and under the conditions then existing a 2500 foot well would have been a pretty deep well. At that time the depth to which they ordinarily sunk wells was from 1200 to 1600 feet, which was considered to be a paying depth. A well from 4,000 feet to 5,000 feet deep, or such a well as that drilled on Sec. 12, of T. 31-24, would not have been considered in 1905 as a venture into which a business man would enter, because they had no machinery at that time equal to the attempt. Since that time we have changed the drilling rig and we use what they call ideal irons or clutch to handle our pipe. We did not have the same weight of pipe or the style of thread necessary to carry the present weight.

In drilling with a standard rig we have to put casing in to hold up the walls of the well and to prevent the drilling cable and tools from striking against the walls and breaking them down. For that reason we carry a string of pipe all the time. **[1431]** That string must be kept free to be able to raise or lower to allow the formation that is caving on the outside to fall in, thus keeping the pipe free. The drilling tools are operated through this pipe and make a hole underneath and ream this hole out to the outside diameter of the pipe. It is therefore necessary to have a string of pipe that will stand the whole length of the well and hold together of its own force as it is not supported by the ground at all. This could not have

been done in 1904. There has also been a change in the cables used in drilling. At that time we were just starting to use wire cables but they were not protected so that we could handle them to the same depth that we do now.

I heard Mr. Mills read to Mr. Miley an extract from Mr. Youle's testimony concerning oil blow-outs being always a sure indication of the existence of oil. I do not agree with this because there have been many places where a number of seepages were found but no oil was discovered although they drilled all around these seepages. Mr. Youle himself had such experiences at Half Moon Bay and at Hollister. There are seepages all over the Half Moon Bay country and he drilled wells all through there and did not get oil. This same thing has occurred in the Los Angeles field, although I am not sufficiently familiar with the situation to tell the details.

CROSS EXAMINATION
OF
DAVID KINSEY.

In the cases I have been referring to of drilling in the vicinity of seepages, the wells were drilled all around so that if there had been any lead of oil running away from them it would have been found.

I cannot approximate how many holes were drilled around the seepages because the seepages were spread out in different **[1432]** places and they drilled in places that they thought the oil should be found and it wasn't there. Answering as to whether in my opin-

ion, where the drilling took place, there was a proper development accompanying the drilling, I will say that my opinion would have nothing to do with it, because I am not posing as an expert; I am only telling the facts. I do not know, as a matter of fact, that in the Half Moon Bay Country Mr. Youle did not designate the place where the oil wells were put down and that they were designated by some one else. If I should find that to be true, it sure would alter my estimation of the relation Mr. Youle bore to the unsuccessful termination of that well. So far as Mr. Youle having anything to do with the well at Sergeant, I don't know anything about it, and I do not want to pass any judgment upon Mr. Youle upon insufficient information. Never to my knowledge have I been in Township 30 South, Range 23 East. That is about seven miles away from the well which I drilled on Section 12, Township 31 South, Range 24 East. From my experience as an oil man, there surely could be oil and oil sands between my well on Section 12, in Township 31 South, 24 East, and the land in the south half of Township 30 South, Range 23 East, if there is an anticlinal fold plunging toward my well. I drilled a well in the southwest quarter of Section 4, 11 North, 23 West. That was a successful well and produced over one hundred thousand barrels of oil in twenty-seven days and netted the company about forty-two thousand dollars. We are drilling another well on that section now. The first well that we drilled that I have testified to, on Section 4, is between two and one-half and three miles of the foot-

hills. This well is further out than any other well that has got oil except the Carnation, which is out a little further and struck oil. We are down 2048 feet in this second well and we expect to get oil at 2800 feet. It is my opinion that the formation dips that way. As far as my experience goes, speaking of the whole **[1433]** Temblor Range, the oil sands extend to the point where I brought in this successful well on 4 and towards the Buena Vista Hills. The well which I testified about on Section 12, in Township 31 South, Range 24 East, is in the Elk Hills, pretty well to the east end of the Hills. At the time I first started in the oil business in the McKittrick Field there, or the McKittrick-Midway Field, whichever you wish to call it, the deepest well we had at that time was 450 feet. Along in 1902 and 1903 they began to go 1500 feet and they struck oil at about 1200 feet. If at that time they had believed that they could have found oil sand at 3000 or 3500 feet, they probably would have made an attempt to go down.

REDIRECT EXAMINATION OF DAVID KINSEY.

Prior to 1905, I would not have gone into a new country from seven to eight miles away from where oil had been found to sink a 3000-foot hole because we had not been able to sink that kind of a well up to that time and did not have the machinery and appliances to do it with.

There were other wells sunk in Township 31-24 in

the vicinity of the well that I drilled on Section 12, but there were none sunk on that section to any depth. The East Midway Company, the Esperanza Company and the Balfour-Guthrie people put down wells there. These wells were on Sections 2, 7 and 9 or 10. The Balfour-Guthrie well on Sec. 7 was 3900 feet deep. The Esperanza was close to 3000 and the well of the East Midway Company went to a depth of only about 1200. None of these wells struck oil and they have all been abandoned.

The total cost of the well drilled by us in Sec. 12, 31-24 was about $90,000. In my opinion this was a medium cost for a well of that depth and it would not have been unusual if it had cost from $130,000 to $150,000. **[1434]**

I am certain that we could not have encountered oil in drilling this well and passed through it without discovering it.

When I was in the vicinity of Township 31-24 in 1903 or 1904, there was a well in Sec. 11 of that township which had been drilled by a man named D. E. Hoey. I think they abandoned this well at a depth of seven or eight hundred feet. They abandoned this well because they ran out of money and the association closed them out of their available visible assets and Hoey went to the penitentiary. They encountered some gas in this well. It is my impression that they encountered this gas about the first of December, 1904. It was not as early as 1901.

L. D. BELL,

A witness called and sworn on behalf of the Defendant, testified as follows:

DIRECT EXAMINATION

My name is L. D. Bell. I am a native of Mississippi and came to California in 1884 and have been here ever since. I went to work for Miller & Lux in Kern County in 1884. I worked for them for nine years on the Buena Vista Lake part of the time being at Headquarters Ranch as Superintendent. After I left their employment I went to McKittrick and began working for the McKittrick Oil Company. That would make it 1906. At the present time I am a driller for them. I have been in the oil business ever since I have been in McKittrick. Before going to McKittrick I knew the Elk Hills very well. They were called the Elk Hills because the Elk used to go up there. There were but very few of them at that time in that country and the elk used to come down out of the hills at night and feed in the alfalfa and the Egyptian corn and then they would go back into the hills to hide in the day time. There are a lot of elk there now. I have ridden into the Elk Hills a number of times on horseback. I used to go up there with a lot **[1435]** of the boys on Sundays and every time we went to a different point. I never observed any work going on there in those hills. I know that there were locations in there but after I went over to McKittrick I never went back into the Elk Hills. Some locations were made in the Elk Hills about thirteen years ago.

I can name the parties who made the locations all except three. One was Charlie Meaves, Jim Ogden, Superintendent for Miller & Lux, and Harry Robinson, who is now dead, and Tom Larkin, who was the bookkeeper, and Manuel Avila, who was the sheep boss. Mr. Meaves at that time was agent for the Southern Pacific at Button Willow. He was not an oil man. Mr. Ogden, who was Superintendent for Miller & Lux was not an oil man. Robinson was foreman under Ogden at the Button Willow ranch and he was not an oil man. Avila was Miller & Lux's head sheep man and he was not an oil man. I don't believe any of the men on that location were oil men. They located about eight sections. There were eight of them and I think they got eight locations. I don't know the townships or sections but they located from the dredger across the mountains. The dredger is right below the Elk Hills. It was known as Miller & Lux's dredger camp. It is five miles exactly east and south from Headquarters. I don't think they did anything with their locations. I think they just let them run out. They did not put up any rigs or sink any wells to my knowledge. I don't think they spent any money.

When I went over to McKittrick in 1906 I began work three miles west from McKittrick for the McKittrick Oil Company. I was well acquainted with the town of McKittrick and knew everybody in the town of McKittrick. Was in there nearly every day getting my mail. There was a whole lot of excitement there over the Elk Hills but I didn't take any interest in it and never cared anything about it. I don't know

just exactly when that excitement was but I know the time the Associated went in there. **[1436]** I am referring to the recent excitement. I don't know how long ago that was. I don't know whether others went in there other than the Associated except from hearsay but I know the Associated did because they went by our place. Before the Associated went in there I never heard the Elk Hills discussed as oil land. When I first went to McKittrick there was not anybody doing anything in the Elk Hills. Before I went to McKittrick fellows located the Elk Hills as oil lands and they were taking up considerable around there, jumping it as oil land and putting locations on it. I don't think they did anything with those locations, not to my knowledge. When I first went to McKittrick everything was shut down, all the fields were shut down; there was nothing started up until they got a new excitement in oil, raised oil to thirty cents and then everybody started to drill over the whole country. At that time the work was confined along the ridge of the Temblor range. It was later than this that the Associated went into the Elk Hills.

CROSS EXAMINATION
of
L. D. BELL

At the time this location was made in the Elk Hills by Charles Meaves and others, I thought they would put me down as a locator as they were all friends of mine and I wanted to get in but they had enough men besides me. At that time there were a number of

people that believed the Elk Hills contained petroleum and I believed they did at that time. The sheep Superintendent of the ranch and the agent of the Southern Pacific got excited at that time over the belief that the Elk Hills contained petroleum. I don't know whether or not these men ever did anything with their locations. What ever went on in the Elk Hills I had no personal knowledge of except what I might have seen when I had driven or ridden in there in some places. About the same time that these **[1437]** other locations were made Jim Wagy made a location over there with other parties. They put a cabin on the hill and it was there last winter when I went down there. I heard that Miley was located all over the Elk Hills. I don't think those Elk Hills have any value for agriculture or farming. I have been in the business of agriculture and grazing for a number of years. I know the value of agricultural land in that vicinity.

Those elk would come down in the night and feed on the alfalfa fields and go back into the hills for refuge in the day time. They didn't go into the hills to feed. They went in there for hiding. Those Elk Hills have no value for grazing at all seasons of the year. In rainy seasons flowers and alfileria comes up in portions of the whole country there and they have lots of feed. I would not give much for the Elk Hills generally as a grazing proposition. I would not regard it as of any value for grazing. If it had any value at all it would be possibly for its mineral value because it has no value for agriculture or grazing.

REDIRECT EXAMINATION
of
L. D. BELL

Miller & Lux's sheep run over the Elk Hills and they take the sheep in there for lambing purposes. In hard years they used to take them in there because the ground below was wet and they would take the sheep up in the hills and haul feed there for them as it was warmer there in the gulches. I hauled hay up there myself. In other years when there was rain in the spring the sheep grazed over those hills. I have heard of the Associated Oil well in there being a good well. I don't know what section it is on but I heard that the Associated had a good well. I am not interested enough at the present time in that country as an oil field to go in there because I don't think there is any chance to get in there now at all. I think it's all taken up. The Elk Hills are low foothills. They are a low range of **[1438]** mountains and you can drive pretty nearly all over them in a buggy except some places where you couldn't go where the ground was too steep.

RE-CROSS EXAMINATION
of
L. D. BELL

I was interested in getting a location thirteen years ago when those other men went in there and I wanted to get in but I was up on the Lake and I didn't get a chance to get in there with them. I felt awfully disappointed because they did't put me in with them.

A. BANDETTINI, a witness called and sworn on behalf of the defendant, testified as follows:

DIRECT EXAMINATION

I have been residing at McKittrick since 1897. I was there before that time from 1895 to 1896. I ran a feed yard there and a livery stable and a store. I was in that business up to two years ago. I am still residing at McKittrick. I was acquainted with H. A. Blodget. I worked for Blodget under Mr. Youle. I have known Mr. Youle since about 1896. I knew J. B. Treadwell. Everybody in that country had to come to my place as there was no other place to go. I knew Mr. Miley. I worked for Jewett and Blodget at Sunset. Mr. Youle was Superintendent. I heard lots of people talk about the different oil fields but I never paid much attention. I know the Elk Hills because I worked at old Headquarters. I have been through the Elk Hills. I first went there about 1894. Since then I have only been through the valley between Buena Vista Hills and the Elk Hills. There was sheep all through that country. I don't know if there was any mining going on in the Elk Hills before 1908. I never saw any work going on in **[1439]** there before 1905. Some of those French sheep herders paid rent for grazing to the Land Department of the Railroad Company.

CROSS EXAMINATION

of

A. BANDETTINI

I own eight town lots in McKittrick. I bought them

from the Railroad Company at two different times, four lots each time. In the deeds from the Railroad Company to me they reserve the mineral in the lands to themselves. I knew a man called Professor Owen. I have rented a team to him to go out in the country with. I knew a man by the name of E. T. Dumble. Treadwell came up there in 1899 and I think Dumble came after Treadwell left.

W. H. COOLEY, a witness called and sworn on behalf of the defendant, testified as follows:

DIRECT EXAMINATION

I live on Section 21 of Township 31-23 in the Midway Oil field and have been acquainted with the territory in that vicinity for seven or eight years. I have been a resident of California for about twelve years. I came to Kern County in 1902.

I am the secretary and superintendent of the Eagle Creek Oil Company which is operating on Sec. 31 of T. 31-23 in the Midway. Prior to that time I was superintendent for the Midway Crude Oil Company on the same ground. I first became interested in the oil business about nine years ago in the Old Sunset field at Maricopa. Before that time I had an experience in drilling wells for water in New Mexico and Arizona. Since coming to California I have worked with oil wells as a tool dresser and driller and practically done everything connected with oil wells.

I am acquainted with the Elk Hills and first went there for the purpose of locating land early in 1909. At that time [1440] there was nobody in there. I lo-

cated in Section 18 of T. 31-24, Sections 4, 10, 11, 12 and 14 of T. 31-23 and also in Section 26 of T. 30-23. When I went in there at that time there was no development in the hills and we had to cut a road to get in. There was an old road leading from the Buena Vista Lake through the valley south of the hills to McKittrick but it had not been traveled on for so many years that it was washed out and we could not make use of it without a lot of repairs. Other than a few sheep camps there was no life in there at all when I first went in in 1909.

At that time I went from the east line of the hills as far as McKittrick on the backbone of the anticline and I did not see any development. There were some wells about a mile or so from McKittrick but they were not considered as being in the Elk Hills. I saw some location notices in various places in the hills but I was unable to determine their dates at that time as I could find no notices that were legible. They appeared to have been there for a very long time.

In Sec. 32 of T. 30-23 I found where some trenches had been dug showing some gypsum. This work looked as if it had been done about a year prior to the time I went in there.

I went to the vicinity of McKittrick for the first time about nine years ago and at that time I went clear through from Maricopa to the Devil's Den and back, looking over the ground for a proposed pipe line that was to go through the north Midway. At that time the development at McKittrick covered a

little narrow anticline three or four miles long west and north of McKittrick. There was no development, to my knowledge, toward the Elk Hills. I am familiar with what is known as the Belgian Wells northeast of McKittrick along the western terminus of the hills. They are in broken country and now in the Elk Hills proper. I don't know of my own knowledge that they produced any oil. I have seen them but I saw no evidence of their having produced oil. There [1441] was some oil there but it may have been hauled there and lost out of their fuel tanks. When I went there nine years ago they had a watchman on the property but the rigs were pretty badly dilapidated and they were not being operated.

There was no development to my knowledge further out from McKittrick toward the Elk Hills beyond the Belgian Wells and I did not hear of any development in the Elk Hills at that time.

At that time I did not hear of the Elk Hills being discussed as possible oil land. There was, however, some suspicion that there might be oil in the Midway at that time. The first time I heard the Elk Hills discussed as possible or prospective oil territory was in 1909.

After the locations I have spoken of as being made in 1909, we erected four derricks on Sec. 18, T. 31-24 and drilled one hole 250 feet deep and another 1860 feet deep and then suspended operations. This work was done for the Kern Midway Oil Company. The Mercedes Oil Company drilled 1640 feet deep on the northeast quarter of Sec. 10, T. 31-23. The National

Midway Crude Oil Company drilled 3200 feet deep on Sec. 8, T. 31-23, This latter well was the only one that had a showing of oil which consisted merely of some colors appearing on the surface of the water in the slush box during the drilling, and also some gas. No oil was produced from this well or from any of the others I have mentioned.

These various companies expended in all about $165,000 in drilling the wells I have mentioned.

The well on Sec. 18, 31-24 was started in April, 1910, and we suspended drilling operations in February, 1911. Since that time we have suspended operations waiting to see what our neighbors might get on the adjoining sections.

The 3200 foot well on Sec. 8 of T. 31-23 is not now being drilled further and recently we were working on it trying **[1442]** to shut off the water and we think we will finish the hole sooner or later as soon as we feel like putting our money into it.

I guess the only occasion we had to go in there in the first place was to take a chance on it. We told everybody that put money in it that it was a gambler's chance and they put it in with that understanding, and nothing has occurred since that time to change my mind about it; I think it is a gambler's chance yet.

There is no certainty of finding oil within half a mile or mile of a well which is producing oil. I find that there is a great deal of difference even between locations as to the character of the oil and the amount

that wells will produce. I think the oil occurs in kidneys, or pockets and saturation in the sand beds is more prolific at one place than it is at another. There are many wells in commercially producing territory which are not profitable. In other words oil is where you find it and the only recognized method of determining its presence is to drill for it.

I do not think it possible for an experienced geologist to determine whether a particular territory that has not been developed is good oil territory without sinking a well. I do not think a practical oil man would place much confidence in the report of geologists of the presence of petroleum.

I do not think that the prediction in Bulletin 406 of the United States Geological Survey that oil could be found in the Elk Hills at a depth of 800 to 1400 feet is well founded. We did not find it when we drilled for it and reached the depth stated in the report where we ought to find it. If this bulletin meant that oil would be found at a depth of 5,000 feet within the Elk Hills, I might take a gamble on finding it, if I had plenty of money, but I would not do so because of the geologist's report. They generally tell us where the oil is not. I do not go on geologists' reports at all.

In 1904 I do not think that a 5,000 foot well would **[1443]** have been considered a possibility in the California oil fields. At any rate not in the Midway fields, as we did not have the facilities for going that deep. As late as 1904, 3400 to 3700 feet was considered as a

maximum. Since that time there has been a great change made in the methods of drilling and in the equipment and appliances used and they are still being improved upon.

I would not advise any one who is anxious to invest money to sink a well in the Elk Hills at this time, because I do not want to get any of my friends in bad, because I drilled there. I do not think you could get a return on the money commercially speaking. I do not think it would produce petroleum in paying quanties. I would not recommend investment myself. It would be extremely hazardous at any rate.

CROSS-EXAMINATION
of
W. H. COOLEY.

The location in which I am interested and in which I was one of the locators on section 26 in Township 30 South, Range 23 East, I believe is leased to the Associated Oil Company with an option to purchase. I might have built two or three houses on that section but they took the ground over. My first experience in the oil business was the drilling of a wild-cat well in Mexico sixty miles from Galop. All the rest of my experience in the oil business has been during the last nine years in California. All I know about the geological formations in the McKittrick country is what I have read and I had investments that used to bring me in contact with the well reports. I also accompanied geologists over the field. I am not prepared to testify under oath that a well drilled eighteen

hundred and sixty feet in the Elk Hills will prove either the presenec or absence of petroleum deposits. When we started to drill in the Elk Hills we figured on going about fifteen hundred feet. Our wells were situated on [1444] the flank of the Elk Hills. They were not on the back bone of the hills and it seems to me as a practical oil man to be demonstrated that our wells would have to go deeper than they otherwise would have had to go than if they had been properly situated on the anticline but we had to drill our wells where we did so as to get them on our land. The fact that our land was not situated favorably for drilling of wells may have been the cause of our failure. The territory was good territory, I think. I don't want to be understood as condemning the entire Elk Hills on account of those few wells that we put down. There may be some wells there that have not yet been started. They might discover petroleum there at a very shallow depth. I don't go anything at all on geology in the location of oil wells but I wouldn't drill in the Tehachapi Mountains because that was too far away. You have to find some surface indications, such as fossils, that are present on the surface in oil bearing formations or country and there is numerous rocks and float that are closely related to petroleum that we find and where we find it we are more likely to think there is oil there than some other place where there is no stuff of that kind. So far as the surface is concerned I pay some attention to geology and I want some surface indications

of the presence of oil before I drill. The character of the formations and the indications of oil seepages and gas blow-outs are the strongest indications of the presence of oil.

In determining where a well shall be drilled I do pay attention to surface indications, such as oil seepage and gas blow-outs.

I do not think the lands in the Elk Hills have any value as farming lands. If they had some water they would grow grain all right. The character of the soil is such that it would support vegetable life all right. It is very prolific if you have water. I do not know of any chance to get water there **[1445]** but I have never given that matter consideration. We struck water in the wells I have referred to about a depth of 400 feet at one time and considered using the water for our development purposes.

REDIRECT EXAMINATION
of
W. H. COOLEY.

1 do not regard the surface indications such as oil seepages, gas, blow-outs, etc., as being indications of finding oil in profitable quantities. These indications extend clear along the Temblor Range and there have been numerous wells drilled along them that have not been commercially profitable. These surface indications are more marked in the Devil's Den territory than they are in the Midway but no oil has been discovered in commercial quanties there. There is a great difference in oil that can be obtained in com-

mercial quantities and oil that will suffice for a discovery.

We have always been vitally concerned with sand croppings in relation to petroleum deposits and it is just a matter of guess as to which side you get on. Some will say one side and some the other. If you don't get it you ought to be on the other side, and you never drilled on the other side and you never find it unless it is defined which way the dip goes and demonstrates that there is a petroleum outcrop with petroleum in it. For my part I would rather drill near a gas blow-out than near a so-called sand outcropping that shows dry. A gas blow-out shows life and it might come from petroleum and you generally find oil in greater or less quantities where there is gas. If you don't find actual gas but you find sand that has been discolored by gas that is a very good indication. The only way you can find out whether there is oil or not is to sink a hole. Of course surface indications are important. I wouldn't try for oil in a **[1446]** country that don't bear any surface indicaitons whatever of the presence of petroleum, such as the surface indications that we find in an oil country but if we don't know that the surface indications were related to petroleum I would be as likely to drill in the Tehachapi range as in the Sierra Nevada range or any other range.

H. C. GOODYEAR

A witness called and sworn on behalf of the defendant, testified as follows:

DIRECT EXAMINATION

My name is H. C. Goodyear and I live at McKittrick. I went there first in 1902 and remained there for three years and was then gone for three years and came back in 1908 and have been there ever since. Prior to my going to McKittrick I was around Bakersfield and the Sunset country going to the latter place in 1900. Since I have been at McKittrick I have been working around the oil fields in every capacity from a roustabout to a superintendent and have been engaged in actual practical field work in the development of oil.

I have had experience in other kinds of mining, practically every kind except coal mining. I have mined all over the Pacific Coast and in Alaska and in the Philippines.

Although I passed through the Elk Hills in going hunting in 1903 or 1904, I went in there first for the purpose of examining the hills in 1910. When I went over there first I observed no mining of any kind going one there and heard of none.

When I first went to Sunset in 1900 I observed the work that was being carried on by Jewett & Blodget there. Most of their drilling was on the north foothills of the range. There was a little work going on in the flat but it did not amount to much and would not extend beyond a mile from the hills at the most. Going **[1447]** from there toward McKittrick there were several companies drilling along the foot of the range at a mile or two miles possibly, but they were

principally propectors. At McKittrick the development was toward the northwest for a distance of five or six miles along the hills but it did not extend toward the Elk Hills and there was no work going on there to my knowledge, nor did I hear of any.

Prior to the time I left McKittrick in 1905, the general opinion amongst oil men was that the oil extended right along the range of hills that lie back of McKittrick and ran in a northwesterly direction toward the Temblor. I never heard of the Elk Hills being considered at that time as oil land. I knew there were locations made all over that country, however. The Kern River oil discovery had been made shortly before I came into that country in 1900 and as a result the whole country was covered by mining locations. Everybody that had money enough to get out made a location, if he could find some open land and these locations were in places ten miles from actual discoveries. I have observed the same sort of thing in surrounding camps where there has been a gold excitement. Everybody rushes in to get a location and the country soon becomes covered in every direction.

During the time I was in McKittrick between 1902 and 1905, I was in touch with what was generally going on in that vicinity with reference to oil development and was very much interested in the discovery of new territory. I was personally acquainted with all the oil people in the field at that time and we discussed the situation at different times whenever we

would meet and talked about the localities around there where oil was discovered or was likely to be discovered. I never heard the Elk Hills mentioned in any of these conversations.

When I returned to McKittrick in 1908, there had been no work done, to my knowledge, in the Elk Hills. Since that time **[1448]** there has been a great deal done in there, the first of which was done in the summer of 1909.

According to my experience the opinions of experts as to the presence of oil would be of no value to me at all. The way to determine where oil is, is to put down a drill. I have had experience with one geologist in particular, and I never knew him to locate anything that was any account. I am referring to Mr. Owen.

According to my observation in the vicinity of McKittrick the oil production is not uniform as the field is undoubtedly spotted. You can get a good well in one place and 100 feet from there you may get a dry sole. It is my experience that having a producing well at one point is no assurance that a producing well can also be found a mile away.

S. J. DUNLOP, a witness called and sworn on behalf of the defendants, testified as follows:

DIRECT EXAMINATION

I live at Taft, California, where I have lived for the last three years. Prior to that time I lived in Los Angeles, San Francisco and other places in California. I have been interested in what is known as Twenty-five Hill in Kern County in Township 32-23

since 1900. At that time I promoted the Mt. Diablo Oil Company and we commenced actual development on Sec. 26 of that township. I was in charge of the development of this property. We put a well on each quarter of the section and made our discoveries of oil and obtained patent from the Government. After that there was quite a slump in the oil business and we let the property lie until a railroad had been built in there and until there was further development, at which time we resumed our work. This was about three years. This property is now known as the Dunlop Oil Company property and is producing oil. I am a direc- **[1449]** tor and superintendent of this company.

During the time I have been connected with these properties, I may say that I have been over the entire west side field. I was in McKittrick years ago a few days every week or so and with the exception of the last ten years I have kept in touch in a more or less general way with what is going on in McKittrick. From 1900 to 1905, the actual production territory of McKittrick was west of where the town is located and back in the hills, and there was no production of oil between McKittrick and the Elk Hills that I know of. The oil men generally who were interested in that district thought it was limited to the territory that is now developed.

Prior to 1905, I never heard anybody say that they considered the Elk Hills as being oil territory. In fact, the first time I heard it spoken of as even prospective oil territory was about two years ago.

I went into the Elk Hills in 1900 with a man named Graham who, I believe, is now dead. We went in to see if we could locate an outcropping of sand such as we had found further back in the hills on the main range where we are now operating. We made no locations as a result of this trip, however.

I did not see anything there to give evidence where it might be oil territory. There was nothing there to show.

I have not changed the conclusion I reached at that time and I do not believe that the Elk Hills are oil territory today. If there is an oil bearing sand there, I think it is too deep to reach so as to obtain a production of oil.

Prior to January 1, 1905, the general impression among oil men was that the Midway flat which is now very productive, could not be considered as oil territory. There were locations made all over the flat from the north end clear through to Sunset and there was some development that produced failures. As a **[1450]** consequence at that time we thought that the oil bearing region was along the foothills.

It is my experience that the only sure way in which to ascertain whether oil exists is by means of the drill.

CROSS EXAMINATION
OF
S. J. DUNLOP

In 1899 I was a conductor for the Southern Pacific Railroad Company and had had no experience in the

oil business. I left the employment of the railroad company in November 1901 and prior to that I was granted leaves of absence and it was during one of these that I was superintendent of the oil company I have referred to, in its operations in the Midway.

I remember the Honolulu Oil Well coming in about two years ago and I remember that it caused a great deal of excitement in that vicinity.

After my trip with Mr. Graham into the Elk Hills in 1900, I did not again visit them until about two years ago. During the last year I made about ten trips into the hills.

REDIRECT EXAMINATION
OF
S. J. DUNLOP

My conclusion as to the present value of the Elk Hills as oil territory is not based solely on my visits of 1900 but upon what I have been given to understand as to the amount of development that has been done in there and the reported failures. I have had occasion to observe some of this development work myself and have visited some of the wells that have been abandoned and the materials taken away. **[1451]**

FRED H. HALL, a witness called and sworn on behalf of the defendants, testified as follows:

DIRECT EXAMINATION.

I live in Bakersfield, California. Bakersfield has been my home for about four years. Before that time I lived in Visalia. I am forty-four years old and was born in California. I am engaged in the oil business,

the water business and garage business and farming, and am vice-president of the Bakersfield Board of Trade. I am connected with the Visalia Midway Oil Company operating in the southeast quarter of Sec. 25, T. 31-22 in the Midway district. This company is producing oil and is operating three wells. All of my oil experiences has been confined to the Midway field.

I first became familiar with the Midway country either in 1900 or 1901. I used to go to McKittrick and hire a team to go to the property that I speak of in the Midway field, and we also got our supplies from McKittrick. I was familiar in a general way with the country in the vicinity of McKittrick where the oil development was going on at that time. This covered the ground lying immediately west or northwest of McKittrick adjoining the town and from there either north or northwest along the main range about two or three miles.

At that time the developed or known oil territory did not extend down toward the Midway from McKittrick. In 1901, I believe, they got oil near Taft. I know that when I first went in there the Bay City was drilling on Section 25 near Taft in T. 32-23.

In 1905 the development in the vicinity of McKittrick was practically the same as I have described it for the earlier years. Going down toward the Midway there was an increase in the development around Taft and there had been two or three wells drilled around McKittrick but not to any great depth, and **[1452]** they had not produced any oil.

I am familiar with the Elk Hills and believe that I was in them first in 1901 for the purpose of looking around, as we were then hunting for oil land to locate. We did not make any locations in the Elk Hills at that time, however. From 1900 up to 1905, I was familiar with the general impression of practical oil men in that field as to the limits of oil territory. The general opinion at that time was that the oil bearing territory was confined to the small strip from McKittrick west or northwest and a small territory around Maricopa and around Twenty-five Hill. I think they considered the oil bearing territory as extremely limited. The general belief was that the territory between McKittrick and Twenty-five Hill was not oil land.

During this same time it was generally conceded that the Elk Hills were not oil territory. At that time I would not have invested any money in a well in the Elk Hills and would have thought that a man who went in there to start a well at that time was either more reckless or had more nerve than I had.

I think that development in the Elk Hills commenced about three years ago. I remember the fact very distinctly but I cannot fix the time exactly. Since that time I have been in the Elk Hills and have kept in touch with the general situation, particularly with the Kinsey well on Sec. 12, T. 31-24.

Basing my statement upon my knowledge of the Elk Hills from the time I first went into that country up to the present and upon my experience in the oil

business, I do not consider the Elk Hills to be oil land today. I have never seen anything there to lead me to believe that it is oil territory, although I was interested with same people who made locations in there and put my name in on the locations. I held the interest that I gained in this way for a short time and then sold it and have **[1453]** never attempted to acquire any interest there and have no desire to do so.

I remember distinctly the report of oil being struck in the Kern River field in 1899, I think. As a result of this strike a great many people went all over the country and located on anything they thought might possibly be oil land and in many instances these locators were men who never had had anything to do with the oil business. These locations were made all over Kern County. Such locations are no indication to me of the existence of oil.

CROSS-EXAMINATION OF FRED H. HALL

When I first became acquainted with the territory in 1900 or 1901, I went there for the purpose of finding land to locate for myself and a number of associates. Previous to that time I had had no experience in the oil business but had been a deputy sheriff and had held other similar positions.

The only way to absolutely determine the presence of petroleum is by drilling a well but attention should be paid to geological formations and physical evi-

dence on the surface of the ground in determining where to begin drilling.

Oil sands generally have some uniformity in the direction in which they dip from the outcrop, except where they are broken up. It was the general belief among oil men in the West Side field in 1901 and after that time that such continuity might be expected. In regard to the extent of the oil territory in 1901, I heard it variously estimated by different people. Some oil men thought that the strip was not more than half a mile or two miles wide. Some of them contended that it was very narrow in places and wide in others, but the general opinion was that the belt was confined to a narrow strip along the eastern slope of the [1454] main ridge of hills.

Some thought that this would run out in the flat while others contended that if you get down off the hills no oil would be obtained at all, and I shared in this general belief. Our location in Sec. 25, 31-22, was right at the base of the hill. It ran out on the flat about three quarters of a mile.

When I first went into the Elk Hills I cannot say that I thought there was a probability of oil being there but I thought there might be a possibility. I don't know that I had fixed opinion as to these hills. I went there to see what the country looked like but I did not find anything that I thought would warrant me in doing anything and consequently came away without doing so.

If I had believed at that time that there was oil at a depth of 1500 feet, or in excess of that, it is hard to

say what I would have done but I probably would have located the ground.

The locations in the Elk Hills on which my name were placed by others, was made about three years ago, and before the withdrawal order of September 27, 1909. After I found out that I was a locator, I think I put in $1,000 or $1100. I did not do this because I had any confidence in the ground but as my friends had gone into the matter and as they seemed to have a great deal of confidence and had declared me in, I put up the money.

I later had an opportunity to sell out my interest to one of my associates who paid me just twice what I had paid in. If I had believed that oil could be found at a depth of 4,000 feet at the place where these locations were made, I certainly would have held on to my investment.

REDIRECT EXAMINATION
of
FRED H. HALL

In saying that it is safe to assume that an outcropping **[1455]** of sand will continue for some distance in the absence of evidence of disturbed conditions, I do not mean to say that it is safe to assume that this will be true for several miles. Just how far the assumption can be safely made depends upon conditions. **[1456]**

H. W. THOMAS, called on behalf of the defendants, having been first duly cautioned and solemnly

sworn to testify the whole truth, and nothing but the truth, testified as follows:

DIRECT EXAMINATION

I live in Bakersfield, California, where I have been living for twelve years. I am engaged in the business of producing oil and have been engaged in the oil business generally in and around Bakersfield for the last twelve years and also in the Maricopa District and the Midway field.

I am a director of the W. T. & M. Oil Company, which has property on 25 Hill in the Midway District. I am also a director of the T. W. Oil Company at the same place and own the lease of the Tamalpais Oil Company. I am a director and Secretary of the Midway Premier Oil Company at Fellows, and also of the Midway Peerless Oil Company in the North Midway field as well as of the Alberta Midway Oil Company. I also own the Fox Oil Company lease in the North Midway.

All of these properties that I have mentioned and others with which I am connected are producing oil at the present time.

I first went into the West Side Oil fields in 1901, at which time I went to 25 Hill where I am now interested. During that year and the following year I was also at McKittrick. At that time the oil production in the Midway field was on 25 Hill.

The development at McKittrick was about where it is now, that is a little north and west of the present town of McKittrick.

After 1902 I did not go to McKittrick again until 1906 or 1907. At that time the developed territory had extended a little to the north, but had not widened out much.

In 1901 and 1902 the general impression among oil men was that the oil territory developed on 25 Hill in the Midway was about all there was and that the extent of the territory at Mc- [1457] Kittrick was about covered by the development then existing.

I first went into the Elk Hills in 1901, at which time I was driven over there by a man from Bakersfield, whose name I do not remember at this time. I went from 25 Hill on the Midway through the Elk Hills and then to McKittrick. We made this trip for the purpose of locating some land, but I cannot say what township or section we were on, but we went to a place north and west of the Buena Vista Lake and four or five miles from the Lake. We made some locations but I never even placed the notices on record and never did any work on the ground.

At the time when we went over to the Elk Hills to make these locations I had never heard any oil men say that they considered the Elk Hills as oil territory. During the last three years I have been over in the Elk Hills a number of times and have traveled over a good part of the hills but have had no interest in any claims over there. I have, however, kept in touch with what has been going on over there.

I bought some of the material that was used by the Monsoon Oil Company in drilling a well in the Elk

Hills as they were through with it and had abandoned the ground.

I do not think that the Elk Hills have been proven to be oil land. I say this because I know of a well that has been drilled there to a depth of 4800 feet which did not find any oil. If I had an opportunity to get land there for the purpose of sinking a well I would not do it nor would I advise anyone else to do so with the expectation of producing oil in paying quantities. I would not advise anyone to sink a well there as a gamble even.

When I first went into the West Side fields I was familiar with the work carried on by Jewett & Blodget. They were carrying on the work under Mr. W. E. Youle as their Field Superintendent and he was the first man with whom I became acquainted **[1458]** in that country. All of this work in the early years of the field was done in the low hills right in the main range you might say and none of it extended on to the flats. After Mr. Youle quit working for Jewett & Blodget he was in charge of work for other people in the West Side fields and I do not know of any of his operations extending out into the flat. All of the earlier wells drilled by Mr. Youle for Jewett & Blodgett were small, shallow wells and I do not think that they were successful from a commercial standpoint.

All of the development out on the flat in the Midway and in the Buena Vista Hills has taken place within the last four or five years.

I have had no experience in developing untried ter-

ritory. I think it is generally conceded by oil men that geologists know more than the average man as they are peculiarly fitted for that sort of work by their study and knowledge. But some of the productive fields were originally turned down by geologists. I suppose that these fields have been developed by practical oil men or by people who are not geologists because of indications that would appeal to a geologist just as they would to a practical oil man. The Bellridge Field was opened up by a man who had practical experience in the oil business but who was not a geologist. I do not know whether this field was turned down by geologists, prior to that time, but I do know that several big companies had geologists out through the Bellridge territory a long time before there was anything done there. In fact all the fields I know of were developed by companies not guided by a geologist or a geological report.

CROSS EXAMINATION OF H. W. THOMAS.

By Mr. Mills: **[1459]**

Q. Mr. Thomas, what fields do you refer to which were turned down by geologists and afterwards developed into oil fields?

A. Well, I will qualify that remark of being turned down, the fields being turned down.

Q. All right, what do you mean, then?

A. The Bellridge has developed into an oil field, and I understand—now, I can't say of my personal

knowledge, because I never talked to a geologist in my life.

Q. Mr. Thomas, before you complete your statement, I want just what you know yourself, not what you have heard?

A. Well, I don't know of any oil field that was ever turned down by a geologist that afterwards developed into an oil field. I don't know, because I never talked to a geologist.

Q. Now, do you know, as a matter of fact, that no field in California with which you are acquainted has ever been reported favorably upon, prior to its development, by a geologist, of your own personal knowledge?

A. I said that the fields were developed by people, either companies or individuals, who hadn't any geological report on that field; they didn't go in there because of any geological report.

Q. Now, do you know, from your own personal knowledge, Mr. Thomas, that none of the companies which went into these new oil fields in California were guided by geological advice before they went in there?

A. Well, I will take the fields that I know of.

Q. Yes. Those are the ones I want.

A. The Bellridge field—or, to go back earlier than that, as I remember, John Conley drilled the first well in the Midway field. He and Spellacy went in on 25 Hill. I know that neither one of them ever saw a geologist in regard to that field. I know that. [1460]

Q. Do you know, as a matter of fact, from your

own personal knowledge, that neither one of them ever saw a geologist in regard to that field?

A. Yes sir.

Q. How do you know that of your own knowledge?

A. Well, I have talked to both John Conley and Tim Spellacy.

Q. Well, then, you know it from what they told you, don't you?

A. Oh, yes. I have not been with all the geologists all their time, so as to know they didn't talk to them.

Q. Now, let us understand each other, Mr. Thomas. I am asking you whether you know, from your own personal knowledge that none of the companies or persons who went in and developed these new fields were guided by geological advice with reference to the development of the particular field in which they operated?

A. Now, if I must answer that question by stating that I know they didn't talk to a geologist, I would say that I don't know that they didn't.

Q. Then, as a matter of fact, from your personal knowledge, you don't know, and don't want it to appear on the record, that in any one of these fields the parties who developed the fields were not guided by geological advice as to drilling upon that particular field?

A. Only from what the men who actually drilled the first well told me.

Q. Well, I say, from your own knowledge?

A. That is all I know. From my own personal knowledge—

Q. You don't know anything about it, do you, from your own personal knowledge?

A. No.

Q. Now, as to the Kern River field, that field differs quite materially from the West Side field—and by the West [1461] Side field I mean for twenty miles, from above McKittrick down to Sunset—in what we might term or designate the surface earmarks of the presence of petroleum underneath the surface, does it not?

A. I don't think so.

Q. Don't you consider that the Kern River field, which I understand to have been discovered quite accidentally, has very few of the conspicuous surface evidences of the presence of petroleum as compared with the West Side field?

A. The Kern River was not discovered accidentally.

Q. Well, I am not stating that as a fact.

A. No.

Q. I am simply stating what I understand to be the fact from previous testimony.

A. There were sand-croppings there and gas blow-outs, and had been forever, probably.

Q. Those sand-croppings and gas blow-outs are, in your opinion, indications of the presence of petroleum?

A. Well, they are in that case, and they are in some cases and in some cases they are not. There was oil there at some time. Wherever you find a cropping of oil-sand there was oil there at some time.

Q. To be sure. Now, those evidences, that is, gas blow-outs and sand-croppings, I believe you call them?

A. Yes.

Q. You mean oil-sand-croppings?

A. Yes.

Q. Are generally taken among people who know the subject somewhat thoroughly as evidences of the existence of petroleum underneath the surface either then or at some previous time? Is not that correct?

A. Yes. **[1462]**

Q. And people, even practical men, as you term them, practical oil men, are guided, when they have no geologists who know more of the subject than they do, largely by those conspicuous physical evidences that they find in explorations of the land?

A. Yes sir.

Q. Such as gas blow-outs and seepages?

A. Yes.

Q. Now, isn't it a fact, Mr. Thomas, from such knowledge as you have acquired as an oil producer and in your talks with men who perhaps know more of the subject geologically than you do, that petroleum occurs in depositions, such as sands or shales which have somewhat of a uniform persistence underneath the surface, that the oil collects in these sand shales, which are laid down by depositions or deposits in the first place? Is that your understanding of it, Mr. Thomas?

A. Yes sir.

Q. And these oil-sands or shales, being deposited by former or ancient bodies of water, perhaps, have some uniformity or persistence for quite a distance?

A. Yes sir.

Q. In all directions?

A. Yes sir.

Q. Somewhat in the nature of coal deposits or measures of coal?

A. I should imagine.

Q. Yes. And that where one finds, at the line of contact with the mountain range, and oil-sand-cropping which is exposed there, showing evidences of stain peculiar to petroleum saturation, a gentle dip or angle off towards the valley, then one may assume, from such knowledge as you have from practical experience, that that oil-sand will persist for quite a distance [1463] off into the valley? Is not that true?

A. As a rule, yes sir.

Q. There is no limit that you know of by which it may be determined where that stops, until it is broken up at some place?

A. No sir.

Q. Or met by another mountain chain?

A. No sir.

Q. Is not that true?

A. Yes sir.

Q. So that that geological fact, and taken in connection with the oil-sand-croppings and the gas blow-outs, as you have termed them, give one an idea of the probability, generally, of the presence of petroleum

for quite a distance in some direction away from that oil-cropping?

A. I would not say "probability". I would say "possibility".

Q. Well, there is no reason for you to assume that that oil-sand stops at any particular place, is there?

A. Only we found that it does.

Q. Well, except where it has been disturbed or interrupted by some convulsion of some kind, you don't know where the sand stops?

A. There is no way to tell from the surface.

Q. No.

A. Unless it is broken up some place.

Q. So that if you sink a well near the line of the out-crop and you find a petroleum deposit at say six or seven hundred feet, and measure back to your angle from which the same plunges off into the valley, and find that your calculation is about right, it is safe to assume that if you go further out you may still find oil-sand at perhaps a further depth?

A. Not safe; but we do it.[1464]

Q. Safe to assume that?

A. Yes.

Q. And you do it?

A. Yes.

Q. And unless you find there has been some breaking in the formation so as to allow this oil to waste or escape, or so as to interfere with its general uniform persistence, you would expect to find, as a prospective driller, oil still further out, would you not?

A. Yes.

Q. Unless it has been interrupted?

A. Yes; unless there has been a break.

Q. That is to say, if the structure is uniform throughout, and there is no evidence to your mind, that you can see, of any jamming up or breaking up of the structural form, you would expect to find it at any distance out until you found where the oil-sand had stopped?

A. Yes.

Q. Isn't that true?

A. Yes.

Q. Now, that is the theory, I take it, among practical oil men?

A. Yes.

Q. And they gather to their aid these geological evidences that they know of themselves?

A. Yes sir.

Q. Through the avenue of their own senses?

A. Yes.

Q. Without being told by geologists?

A. Yes. **[1465]**

Oil sand croppings and gas blow-outs are considered by practical oil men as encouraging indications in exploring for wells.

Then an oil sand cropping is exposed and the geological formation shows that it dips off toward the valley from the ridge where it is exposed, it was the general impression amongst oil men even in the early days when I went into the West Side fields, that there

was a possibility of that oil-sand continuing in its dip, but I would not say that this was considered to be a probability as we found in many cases that this oil sand did not so continue because of interruptions that could not be determined from surface indications.

Yes, that was the accepted theory, and it is today, that where you find a cropping, that is, a live cropping, if you go out and follow it out, if it goes out and don't go too deep, and still prevails, you will get oil.

I know that there has recently been some showing of oil in the Elk Hills but I have considered that territory and do now consider it as being problematical and too deep for practical purposes and have begged friends of mine to stay out of there because I did not think the land was worth a cent.

I do not pretend to have any actual geological knowledge of the Elk Hills and it is possible that I advised my friends to keep out of there because I had a "hunch" that the hills were not oil territory.

I know that it is possible that a rotary drill may sometimes pass an oil-sand and I also know that any territory where we have **[1466]** no mechanical difficulties in drilling, we sometimes find that in moving over from one location to another we will get out of the oil-sand because of the change or disturbance of the uniformity of the sand. I have know of this to, occur in McKittrick and also in 25 Hill.

REDIRECT EXAMINATION
OF H. W. THOMAS

The changes in the oil-sands revealed by wells of which I have spoken were not indicated by anything on the surface. It is not assumed by practical oil men that an oil-sand found at a particular place would continue uniformly so that you could safely expect to sink a well seven or eight miles away from there and strike the sand. Even within one mile it would be a gamble.

The sand may end at any time, and that fact is known by geologists, and by the best of them; because I know and you know that the best companies over there, and with the best geologists, have drilled a lot of dry holes. They have gone down awfully deep, expecting to find sand at a certain place, and it is not there. So, I don't know, and no man knows, and no man can tell, where it is going to end.

The existence of a gas-blow-out or sand stained by gas, indicates that at some time and at some place there was some oil, whether it was ten miles away or ten miles deep. I know of places where these indications exist or wells have been drilled and no oil found.

The men who I endeavored to persuade not to go into the Elk Hills were Mr. Spellacy, Mr. Greene and Mr. Hutchinson. They started drilling in the Elk Hills but they are not operating there now. They have quit.

In my opinion a location in the Elk Hills at the present time would be a pure gamble. It is true that

my impression concerning the hills is what I have called a "hunch" but it is backed up and created by certain conditions that I know to exist there. **[1467]**

R. K. HOWK, a witness called and sworn on behalf of the plaintiff, testified as follows:

DIRECT EXAMINATION

I am now living at Taft in Kern County. I first went into the West Side oil fields in 1900 at which time I went to Sunset. From that time on I stayed most of my time at McKittrick for about four years. I was operating at McKittrick on Section 13, Township 30-22.

At present I am engaged in buying and selling oil well machinery and have been since March of this year. Prior to that time my business was selling oil land and inspecting oil land for different people. I have had practical experience in the development of oil land since 1900 when I began the development of this piece of property in McKittrick but it produced water rather than oil. My associates and I then bought a piece of property right in the center of the McKittrick field in section 19, Township 30-22 in which we drilled three wells in 1902, each of which produced an average of thirty barrels per day.

For about a year and a half I was superintendent of what is now the Associated Oil Company's producing property in McKittrick and had charge of all of the drilling. I also had charge of an oil property in Ventura County up to about two years ago. I have also had experience in the Midway field in Section 26,

of Township 31-22 where I have had full charge of drilling the wells.

Since 1900 I have had considerable experience in prospecting for new oil land. During the early years while I was at McKittrick I was interested with others in a well at Carneros Springs above Temblor where we drilled a well which was situated between the Carneros Springs and what is now the Bellridge field. We started this well because there was some indications there which we considered to be oil indications. We got nothing, **[1468]** however, except water, although we went to a depth of 1700 feet.

I am familiar with the Elk Hills and first went there in 1901 and 1902. I was last there during February or March of this year.

From 1901 up to 1904 while I was living at McKittrick I was familiar with the development that was going on around there. It covered what is now the producing field at McKittrick, the actual development being along the low range, north of the railroad. Several companies drilled what they considered to be deep wells there. Several of the companies went part way out on the flat away from the hills and drilled wells but got water and drew back toward the hills. The general opinion was that the oil lay in a very narrow strip through McKittrick. This had been demonstrated quite early in the development because wells very early were drilled that got outside of the oil belt.

Even in the territory extending down toward the

Midway, the belief from 1900 up to 1904 was that the development should keep to the hills. We had no machinery to go deep enough to catch the oil in the flats that was there and the general belief was that the oil was on the main range, what is now called the Temblor Range. When I went to look at the Sunset properties during these early years, it was Mr. Youle's belief that the development should stay on the Hill Range. He told me to stay with the hills because he had tried the flat and had not got anything. I remember that he was afraid that the flat was too deep for the machinery we then had to handle. His idea was that the oil was along the foot of the range to the north of the cropping that shows back of Maricopa.

The first trip I made into the Elk Hills was in company with Mr. Blodget. It is my impression we went into township 30-23. I remember we came out on the west side of that township. He wanted me to drill a well in there if I could [**1469**] raise the funds to do it. I looked over the ground with him and went back there myself a week or two later to satisfy myself whether I cared to put any money into it or not. I came to the conclusion it was very risky and did not invest any money there nor did anyone else to my knowledge.

From 1900 up through 1904 the Elk Hills were not generally considered by oil men to be oil territory. There were a great many men who were in there who were novices like myself, but I do not remember any-

one who was willing to put any money in the Elk Hills even to drill a prospect well. It was impossible to get a man to give it a thought as long as he could go somewhere else where there was production. The wells drilled right in the hills in front of McKittrick, which hills were an extension of the Elk Hills, had been producing nothing, and the Elk Hills were not considered to be oil land any more than this place was.

At that time I could have made locations in the Elk Hills if I had desired to do so as I was in a position to get money for such wells as I wanted to drill and I was also pretty well fixed myself.

I heard of the gas blow-out in the Elk Hills while I was at McKittrick during those years, but never went to see it as it meant nothing to me. I had experience in drilling near a gas blow-out in section 13 of Township 30-21 where I had got nothing except a water well.

Actual drilling in the Elk Hills started about three years ago. I was not in the country at that time but heard of the excitement. I have been over there since that time and went into the Elk Hills because I heard a report that the Associated Oil Company had found oil in section 30 of Township 30-24. There was no production being made when I visited the well. I have been in there since that time and recently bought an abandon- **[1470]** ed drilling outfit on section 4 of Township 31-24 where Reeves and Taylor drilled a well to a depth of 1750 feet. I know

the well was this deep because I pulled that amount of casing out of the well.

I am figuring on the purchase of a number of other abandoned rigs in the Elk Hills further to the north and west. I know these wells are being abandoned because I have talked with the owners with reference to taking out the rigs.

From my experience as an oil man I know the general opinion amongst practical oil men as to the utility of geological experts in connection with the oil business is that they are very useful. I think a whole lot of a geologist's opinion and have paid for some opinions in the past as they tell you where not to go. Of course they cannot tell you where to go to find oil commercially as that can only be determined by drilling. As to the certainty or probability of finding oil or finding the same oil sand at a distance from that, say half a mile or a mile, is a very hard question to answer. I am acquainted with geologists who make a specialty of giving the stratas through the Midway where it has worked out. In the Midway you may find oil at eighteen hundred feet and go a thousand or two thousand feet from there and then drill four thousand feet and not get oil to day.

CROSS EXAMINATION
OF
R. K. HOWK.

By Mr. Mills:

Q. You say you have been in the Elk Hills. Haven't you observed that that country is very much

broken at the surface—undulating—and has very little spots which even if you had water would be level enough to be found?

A. Towards the lake end and on the slope towards the north— **[1471]**

Q. Speaking of the general surface conditions?

A. The Elk Hills is nearly 18 miles long.

Q. Yes, I know. I have been all over it myself—probably as often as you have.

A. That land on the slope, on the north slope of the Elk Hills is pretty nice land.

Q. What sections?

A. 30-23.

Q. What sections?

A. I don't know. Right along on that range.

Q. You mean on the flat, on the north half of the section?

A. On that rolling land; yes sir.

Q. Do you mean on the hills themselves?

A. On the side hills? Yes sir.

Q. I am speaking of the Elk Hills as an uplift. Not the flats themselves.

A. There are a great many little valleys that if water was on them would be very good.

Q. Just name a section where it would be suitable for agriculture? Have you made any study of the soil of the Elk Hills?

A. No sir: No more than casually.

Q. Do you know as a matter of fact that it is very porous and that it wouldn't hold water even if it is put on it?

A. All our soils are so.

Q. Clay soils are not.

A. All of our Maricopa flat, if you drive over it, you will find places where the recently—

Q. Let us not get into an altercation. Be responsive specifically to my questions. Otherwise we will have a clash in a minute.

A. No, you won't. **[1472]**

Q. I am asking you whether you know as a matter of fact that the soil conditions in the Elk Hills are so porous that they won't hold water?

A. No; I don't know that.

Q. Have you made any study to ascertain that fact?

A. No sir.

Q. You never saw any growth there in the way of trees or other vegetation in the Elk Hills?

A. Sage brush only.

Q. Did you ever see a single sage brush in the Elk Hills?

A. On the slopes; yes sir.

Q. Where?

A. On the slope toward the valley, facing the Midway.

Q. Sage brush?

A. That is what we call sage brush.

Q. Where did you see the sage brush?

A. On the south flank of the hills.

Q. Not in the hills themselves, but on the flank on the south?

A. Yes sir.

Q. Recurring again to the splendid agricultural character of these hills, you say they would make good farming land if they had water?

A. I think it would produce if you had water on it; yes sir.

Q. Do you know of any spot in the entire Elk Hills except on Section 16, 30-23, that is level enough to get 40 acres in one piece?

A. I don't know what sections.

Q. Water won't stay on that hilly land at all, if it was put on it, would it? It is too hilly and broken?

A. It is very rolling. **[1473]**

Q. There is no spot that you would like to pick out for a nice farm?

A. You couldn't give it to me.

Q. Couldn't give it to you for agricultural purposes?

A. Oh, yes; if you had water there.

Q. If you had water and crops there you would take it?

A. Yes.

Q. But in its present condition would you take any of that land as a farm?

A. I am not in the farming business.

Q. If you were in the farming business?

A. That is a question.

Q. You don't want it to appear by your testimony that you think that that is good agricultural

land in its present condition, would you, to be perfectly fair?

A. Here is what I do say in answer to that; I don't know anything about agricultural land, and I don't look at it as oil land.

Q. I am not asking you about that. Read the question.

A. In its present condition I don't think it is agricultural land without water.

Q. And you don't know of any way of getting water there, do you, in sufficient quantities and sufficiently low cost to make it useful for farming purposes?

A. That is the trouble with the country.

Q. Just answer the question.

A. No.

Q. Therefore, your testimony is not to be taken as indicative of the high agricultural value of these lands?

A. You can get better lands for the same amount of money.

Q. It has absolutely no value in its present condition for agricultural purposes? **[1474]**

A. In its present condition, no sir.

Q. And you would not select it from its present condition for farming purposes?

A. No sir; I couldn't.

Q. Would you if you could?

A. There is too much good land in California.

Q. Would you in any event select it, whether

there is other land or not, in its present condition, and work it for a farm?

A. No; I don't incline that way to farming land; no sir.

Q. In other words, you don't believe it has any value as an agricultural proposition in its present condition, do you?

A. No sir.

Q. Now, you say you went into McKittrick, as I understand you, in 1901?

A. I was there in 1900 and went back in 1901 to stay.

Q. Where did you come from to McKittrick?

A. San Francisco.

Q. Had you been living in San Francisco for some time prior to that?

A. For some time.

Q. For how long?

A. I don't know. I had been mining in Shasta county.

Q. What kind of mining?

A. Quartz.

Q. For how long a time before you came to McKittrick?

A. Three years.

Q. Before that what were you doing?

A. I was in Guatemala.

Q. What were you doing there?

A. I was employed by the railroad.

Q. What railroad? [1475]

A. The Guatemala Central Railroad. I spent two years in traveling to get my health back before I went to mining.

Q. In Guatemala you were working for the railroad?

A. Yes sir.

Q. How long were you there?

A. Three years.

Q. Before that what were you doing?

A. I lived in Oakland and superintended the water-works there for three years—the Dingee system at that time.

Q. Prior to that what were you doing?

A. The hardware business in New York state.

Q. That leads you back to what year?

A. About 22 years ago, when I came to California.

Q. 22 years before you came to California?

A. 22 years ago I came out here.

Q. What year was it that you were in the hardware business in New York?

A. I was there for about three years with my relatives before I came out here.

Q. What time was it—what year was it?

A. I don't know. I could figure back. I have been here 22 years, and prior to that I was there 3 years in the hardware business.

Q. That would be about 1890?

A. 1888.

Q. To what year?

A. I came out here in 1888, I think. Maybe it is 24 years that I have been out here.

Q. Did you ever have any business relations, other than being an occasional passenger on their trains, with the Southern Pacific Company or the Southern Pacific Railroad while you were in California or elsewhere? **[1476]**

A. No sir.

Q. And your first experience in what you call the oil business was when you came to McKittrick?

A. Yes sir.

Q. About 1900 or 1901?

A. 1901, but I am not sure.

Q. You had just left what business?

A. Mining in Shasta county.

Q. Was that gold mining?

A. Yes sir.

Q. Now, you say that in 1901 or '2 you visited the Elk Hills?

A. Yes sir.

Q. How long after your arrival in McKittrick did you go out to the Elk Hills?

A. The first time—I don't know. I knew Mr. Blodget and he asked me to go out there and look at that property, and I met him and we drove out.

Q. That was in 1901, was it?

A. 1901, or '02; I am not sure.

Q. Right along there somewhere?

A. Yes sir.

Q. And you went out with him and you say you

never visited the Hills again till about three years ago?

A. After I went back to the McKittrick, very often—three or four or five times—I took a horseback ride through the hills and came back through Buttonwillow.

Q. What were you doing horseback?

A. Looking at the land.

Q. For what purpose?

A. For the purpose of forming opinion whether it was worth while to raise money to start a well. [1477]

Q. Water-well or oil-well?

A. Oil.

Q. Out in the Elk Hills?

A. Yes sir.

Q. At that time you hadn't had very much experience in the oil business except what you might have derived in running the water-works in Oakland or in the hardware business, or some of your previous occupations?

Mr. Lewers—I object to that sort of a question as frivolous.

A. I was drilling an oil-well when I made those trips. I was superintendent of an oil property.

Q. By Mr. Mills—What trips?

A. The trips to the Elk Hills.

Q. You became a superintendent in rapid order after you came there in 1901? You became a superintendent the same year?

A. I bought a piece of property.—

Q. What property were you superintendent of in 1901?

A. The property back of the Olig Crude, in Section 13.

Q. That was in 30-21?

A. Yes; I was part owner in the outfit.

Q. Your position as superintendent was derived largely from the fact that you were a large owner?

A. Yes sir.

Q. Not based on your previous geological observations?

A. No. We had to watch our pennies.

Q. You were out there to see that the money was not wasted?

A. Yes; we were all—nearly all the Californians at that time were beginning the game. We were all beginners in the game.

Q. At the time you went to the Elk Hills the first time you had not had a great deal of experience as a practical [1478] geologist?

A. No; I don't pretend—

Q. In fact, your knowledge was almost nil on the subject of general oil geology at the time you made your first reconnoisance in the hills?

A. I had looked over the Sunset property. That was the way I got acquainted with Mr. Blodget. And I had been out with Mr. Cooper—I had been out through the hills with him.

Q. But you had not very much knowledge of oil geology at that time?

A. No.

Q. As you look back on it now, with what you have learned since, you realize, do you not, that you knew very little about oil geology at that time?

A. Yes; I would make the same mistakes now. Everybody would if they didn't get the oil.

Q. You knew very little about oil geology at that time?

A. Yes. I had studied some of the—we had the bulletins. I don't remember the numbers. But I studied them pretty close to get that book knowledge.

Q. You have some book knowledge of geology?

A. I had a copy of the books in which we looked up the different localities as well as we could.

Q. In 1901?

A. Yes sir.

Q. Did those books or bulletins which you examined at that time tell you anything about the oil formations of the Elk Hills?

A. No sir.

Q. What do you mean?

A. In the McKittrick field there was a bulletin out, as I remember, treating on that asphalt deposit there. [1479]

Q. I am not interested in that, unless you want to volunteer it.

A. That is all I remember. I used that as a basis on these formations.

Q. You did find some excellent asphalt deposits around McKittrick?

A. One of the best.

Q. And you made $15,000?

A. For our company.

Q. By tracing up and disposing of this asphalt mine which you say was 98 per cent pure?

A. Most of it 98 per cent; yes sir.

Q. Are you sufficient of a geologist at the present time to give me an opinion of the comparison of the formations in and about McKittrick, to the north and west of that, with the Midway field?

A. No.

Q. You do not feel competent to venture such an opinion?

A. No.

Q. But do you know as a matter of fact that the character of the structure about McKittrick is jammed up and broken up by the convulsions of that fold more so than at any other spot, so that it has caused more natural waste of petroleum which is now left in residuum beds of asphaltum? Do you know that to be a fact as a geologist?

A. Not as a geologist, but from observation it is rough like the north slope of—it looks to me just like the north slope of the Elk Hills. That is rough. Whether it is erosion or not, I don't know.

Q. Have you not been told or have you not

learned from your reading that the character of the formation around McKittrick has been jammed and broken up geologically so that it **[1480]** is impossible now to determine at what point in some places, to sink a well in order to find any oil?

A. That is the general opinion.

Q. You don't mean to say as a geologist, Mr. Howk, that the Elk Hills from the reconnoisance that you gave it is broken up in the same way that it is at McKittrick?

A. Not from a geologist's point, but from observation it is very rough and broken in there.

Q. It is a structural fold, is it not, on the Elk Hills?

A. I don't know what you would call it, but I know it is just as rough a country as you could possibly get. You can't go over it horseback, it is so rough.

Q. I thought you said it was good farming land?

A. I am saying that where 30 is, to the north of there, off in here, where the Associated well is, that is very rough country.

Q. That is not suitable for farming there?

A. I should hope not.

Q. Do you know from your geological reading and basing your answer upon your experience as superintendent of several oil companies in and about McKittrick, that the Elk Hills is really in fact a gentle uplift with slight angle of the same sands that outcrop along the line of contact at McKittrick?

A. I don't know.

Q. You don't know that?

A. No; I don't know that.

Q. You don't make any pretensions of knowing anything from geological observations as to whether the Elk Hills would make a favorable spot for the accumulation of petroleum or not, do you?

A. What do you mean? My opinion about going in there and drilling for oil commercially? **[1481]**

Q. No; I am asking you if you would consider that from a geological standpoint—do you feel yourself as a geologist able to pass on the question whether the Elk Hills are a favorable spot for the accumulation of oil or not?

A. No; I am not a geologist.

Q. Now, Mr. Howk, in 1901, you say you went out into the Elk Hills for the purpose of determining the question whether you should go in there and drill an oil-well?

A. Yes.

Q. Did you look for any physical evidences of the existence of petroleum underneath those hills at the time you went out there—any surface indications?

A. I was looking; yes.

Q. What did you look for?

A. For a sand cropping. That is about all.

Q. Do you mean an oil-sand cropping?

A. Yes sir.

Q. What else would you look for?

A. If I could see evidences of asphaltum, as we found in McKittrick, I would think well of it.

Q. Those would be, in your mind, indications of the presence of petroleum?

A. To a certain extent; yes.

Q. Was it your understanding from the somewhat brief information you had at that time that these sands which outcropped along the contact of the Temblor Range near McKittrick, and which you say were stained over with petroleum or gas, dipped off into the valley, and that somewhere in those sands you could sink a drill, and if you reached the sands they would contain petroleum which a drill would prove?

A. I didn't see any indications.

Q. Isn't that your general understanding of the geologi- **[1482]** cal structure, that these sands that dipped off in the valley were somewhat persistent and uniform, unless broken by some convulsion of nature?

A. Naturally so.

Q. And unless they were cut off by something underneath which you could not see on the surface, they would extend indefinitely where they were deposited by the sea originally?

A. Yes.

Q. And unless some convulsion of nature had interrupted the persistence and uniformity of that sand stratum, it would exist till it met the other range of mountains?

A. That would be the natural effect.

Q. And that was the general belief among oil men, was it not, up there?

A. Yes sir.

Q. So that there was really no arbitrary limit, if you could have tools which would go down to get the sands, and the money to pay for the string of tools and follow up, why you should not expect to find oil in it after you struck that sand?

A. The indications were not there as we had them in McKittrick, to start with.

Q. I am speaking now of the general belief that these sands dipped off into the valley from the flank of the hills there.

A. I don't know what the general belief was, but it did not impress me enough to go and spend the cost of drilling.

Q. Read the question again. (The reporter reads the question.)

A. The general belief is that they dipped to the valley.

Q. And also, it was the general belief, was it not, that these sands had been laid down by the sea when the sea first covered that land—in a uniform and general disposition all [1483] over that valley?

A. Yes sir.

Q. And that these stratifications where they existed, there was nothing, unless there was some convulsion of nature to interrupt their course, to prevent their persistence indefinitely as far as the sea went?

A. Yes. But let me add this: We had tried by going out on the dip of the sands and failed to find it.

Q. We will come to that.

A. Won't that answer the same question.

Q. But that was the general belief, that the sands were laid down by deposition of the sea?

A. Yes.

Q. And if oil came into those sands, there was nothing to prevent its migration throughout its entire course?

A. Nothing whatever.

Q. Now, unless that stratification of sand in which the oil was found to accumulate had been interrupted by a shelving or by some intrusion of some kind, you would expect to find that as far as the sand went, wouldn't you?

A. After once finding it?

Q. Yes.

A. Yes sir.

Q. So that there was no arbitrary limit whereby a man could say, "If you go out there three miles, you won't find oil", was there?

A. There is today, but there was not then.

Q. At that time, the belief was that it extended out, but today you say it is different? Am I correct about that?

A. Yes.

Q. As a matter of fact, is it not true that from the time you first went into the McKittrick, where you say there was [1484] evidence of considerable

jamming up of the structural formation,—from there for twenty miles down the Sunset along the eastern flank of that main range where you say the oil-wells were originally on the flanks of the mountains, that since that time they have developed gradually by going out into the valley, into the flat, and in numerous instances they have found oil?

A. Yes sir.

Q. So, they have, in part, corroborated the theory which men entertained at the time you went to the McKittrick?

A. Yes.

Q. And it even has extended, as you say, to the Buena Vista Hills?

A. Yes sir.

Q. And there the same theory has been corroborated by certain parties sinking wells to a certain depth and discovering oil? Am I correct?

A. Not all of them.

Q. Some of them have?

A. Yes. But I want to add to that question. I can show the paper and I want him to corroborate it —to answer that question of yours. You are asking a very hard question.

Mr. Lewers—You have a right to explain your answer.

A. I want to explain that. Not by the theory, but the way it has worked out. He will corroborate it by what he has seen in the field. That geologist. It

is a hard question you are giving me. It is a damned hard question.

Q. By Mr. Mills—I am assuming all the time that you know more about the oil business than I do. If you don't, you don't know very much about it.

A. We know today that it is not theory. We started to spend money on the theoretical proposition. Let me have a piece of paper and I will draw the lines as I can. **[1485]**

Q. By Mr. Lewers—How will you get it in the record?

A. I don't want it in the record.

Q. I want it in the record. Explain what you mean so it will go in the record.

A. Here is our production today. Here is the Buena Vista Hills (marking on a slip of paper). Here is our strike of oil, coming out here. Assume that this is the valley. Here is our production of oil. The supposition is that this is an erosion of the same sands. Why is it on that same sand at certain points we get water-wells instead of oil-wells?

Q. By Mr. Mills—That is true. You will find that in what they call the synclines. The water being heavier than the oil it will sink and force the oil up in the domes of the hills. That is my explanation of it. When you find water here which is heavier than oil it will drive down into the lowest parts. It will have a tendency to force the oil up into the domes. Will that answer your question?

A. Yes. But a little more. On 25 Hill today we

have water—a great deal of water—between that point and this are oil-wells. Why is the water there? Why is the water there and not in between? These are the shallow wells. Here are the deep ones. The shallow wells have the water the same as the wells out here. Can you answer me?

Mr. Martin—Certainly; but I am not on the stand.

A. That is your business. But it is rather puzzling to me. That cost us money, Mr. Mills, to find it out. It is not theory.

Q. By Mr. Mills—In 1901 Mr. Blodget had you go out there to look over the Elk Hills as a possible or prospective oil territory?

A. Mr. Blodget knew I had some money for the business.

Q. And Mr. Blodget was at that time recognized as a man extensively interested in oil developments in the West side fields? [1486]

A. I think a great deal of his opinion.

Q. He entertained the opinion at that time that the oil-sand must extend out to the Elk Hills, at the time he asked you to go out there?

A. But he didn't put any money in it.

Q. I am not asking that. But did he entertain that opinion?

A. He thought there was a possible chance. It was deep land.

Q. He thought it was a possible chance? He thought sufficiently of it to interest you and others

in the undertaking of developing that field, did he not?

A. Well, it cost him no money to do that, and he was finding out something.

Q. How do you know it cost him no money when he has testified into the record that it has cost him money?

Mr. Lewers—The record don't show that it cost any more than to put up a few records and cabins.

Q. By Mr. Mills—At that time there was a few men that thought the Elk Hills was a favorable spot for the accumulation of petroleum?

A. The only men that tried to talk to me that it was a favorable spot were the men who had already locations. Men like myself who could have gone in and had the money to go didn't think well of it.

Q. You were interested in the flank?

A. Yes, but I was looking for more.

Q. You thought at that time, and quite reasonably too, as a novice in the business, that it was more favorable to drill an oil-well near a mal-producing well than to go out several miles distant into a new territory? You felt that your capital would be safer as an investment—

A. Yes sir. [1487]

Q. —To be perfectly frank about it?

A. Yes sir.

Q. And a great many people who were timid about the investment of capital, and who had little knowledge of the geological structure of the Elk Hills

and Buena Vista Hills, clung along the hillside? Is that true?

A. That is true.

Q. Did you have some confidence in the opinion of Mr. Youle that you spoke of?

A. At that time, yes; a great deal.

Q. He was a man who had been largely in the oil business for a number of years?

A. He had made much of the production.

Q. He was really the pioneer in that field?

A. As a manager; yes. He and McWhorter.

Q. Mr. Youle testified at page 1022 of the record: "Q—You have examined the formation pretty closely along the line of contact of the Temblor Range at Sunset and northwest as far as McKittrick, during the time that you were engaged there by Jewett & Blodget, the P. I. Company and others. By comparison, what is the characteristic formation of the Elk Hills?"—he was testifying as an expert oil man of fifty-one years' experience in the oil business—"A—Why, the Elk Hills, always, to me—There was an intuitiveness there that I always felt like getting away from the broken conditions I found on the edge of the formation. And the Elk Hills looked good to me all right. But that is as far as you could give any geology on it. It looked good from every standpoint; but there was no evidence of any uplift before you reached the Elk Hills; therefore the same formation that existed and was cropping out on the McKittrick side, if it was uplifting at the Elk Hills, must be uni-

form, must be the same; and, as long as that didn't uplift and expose [1488] itself and spill over and make asphalt was evidence that you would get bigger, more prolific wells than you would where the asphalt was, because of the fact that it was not broken. The biggest wells in the world are where there is the least asphalt." Do you agree with him in his statement of facts?

A. Is that recent evidence of his?

Q. That is testified to in the month of May, 1912, in this case.

A. Could he have spoken in that way without the development as you have asked of me ten years ago?

Q. He was speaking of it as of prior to December, 1904.

A. He couldn't have said that ten years ago.

Q. He is stating now that that is what he believed before 1904. I ask you if you agree with him in that statement as a geological proposition.

A. As to the development, as it goes? You have got to agree with it today, because it is borne out by the wells. But you asked my opinion of ten years ago.

Q. He is responding now to a question of his opinion as of more than ten years ago.

A. He was there then?

Q. Yes; and he had locations in the Elk Hills. He goes on further: "Q—Then, as a result of that, did you regard the Elk Hills as more or less valuable as an oil territory than that right around McKittrick?

A—Well, as to value, it didn't have any, more than a mine has until after you get it, and after you get it it is too late to buy it for $150 an acre. In my estimation as an oil man, it had a value—in other words I would be looking for a thousand or two thousand dollar an acre land. I would not be looking for anything else. It wouldn't be worth $5 an acre, or one, if you didn't get it. That is the way I look at it. Q—Well, as a possibility, then, for oil, what did **[1489]** you regard it? A—I would regard it as one of the best locations, without a question. No reason on earth. And that was from parallels over here I had just left in Puente. Without a question it would be one of the best locations in there." Do you agree with his estimation of the Elk Hills as a favorable spot for the accumulation of petroleum?

A. I do not.

Q. And your opinion is not based on any great degree of geological or oil geological information?

A. I think, Mr. Mills, if you had $50,000 to put in the oil business and say to me to go there, if I knew you or not I would say, "Mr. Mills, burn your money." That is the way I feel. I may be wrong.

Q. You know from what you have heard, if not from personal knowledge, that the oil development so far in the Elk Hills is that of a deep territory,—upwards of 3000 feet?

A. Answer me this.

Q. Answer my question.

A. It is deep; yes.

Q. And you know that it requires a great deal more money to go into the exploitation of an oil property known to be deep, than it does in a shallow property?

A. Naturally.

Q. A deep territory is a place for a poor man to keep out of?

A. Yes sir.

Q. A deep territory, if you know anything about the oil game, you know it to be a fact that a deep territory is a place for a man with plenty of money to risk?

A. That is true. Let me ask you this: In these oil wells where they have the oil in the Elk Hills, have they the sand?

Q. Let me ask you another question. [1490]

Mr. Lewers—Mr. Howk, he can't answer the question.

A. Excuse me then.

Q. By Mr. Mills—Do you know that the Elk Hills, in 30, 30-24—that there was produced a well in which there was upwards of 700 feet of perforation of the casing, and in which when it was put on the gauge for two days ran at the rate of of 406 barrels of petroleum a day?

A. For one day?

Q. For two days?

A. 800 barrels for two days?

Q. Yes. Do you know that to be a fact?

A. I do not.

Q. Would that fact make any difference to you or modify your opinion of the territory if you knew it to be a fact?

A. If I would go there and see a hundred barrels a day for twenty days—

Q. I am not asking that. Will you answer my question? Do you know as a matter of fact—

Mr. Lewers—Will you let him answer your question?

A. You want my opinion if I saw a well produce for 24 hours or 48 hours at the rate of 400 barrels for 24 hours if I would call that oil territory?

Q. By Mr. Mills—No. Would you consider it a good well?

A. Absolutely, a good showing.

Q. Assuming that the well was buggered and held down, in order to conceal its true capacity, until it ceased altogether to flow, and you knew it to be a fact that it had been deliberately plugged or stopped from flowing, but that notwithstanding that it would break loose, would that modify your opinion of the territory in any way?

A. How would I have the proof?

Q. I am not asking you that. If it was a fact and shown **[1491]** to you, would it modify your opinion?

Mr. Lewers—To which I object on the ground that it is a hypothetical question not based on any evidence, and counsel knows no evidence can be produced in support of it, and it is misconduct and improper for counsel to bring it in on cross-examination.

Mr. Mills—Don't be sure about your grounds as to what I can show.

Q. What is your answer?

A. Absolute proof by a man that knew his business, I would say that it was a very good indication for an oil well.

Q. If that was shown to be a fact, you would regard the land in the immediate vicinity of that well as excellent oil land, would you not?

A. A 400-barrel territory is good oil land.

Q. Now, referring to the same wells near McKittrick which you say were abandoned or did not produce oil, will you please take the first well that you mentioned? What section was that on?

A. The first one was the Lucille which went out over the hills on the slope, of the extension, in front of McKittrick.

Q. Do you remember the section?

A. It must be Section 8.

Q. In 30-21?

A. 30-22—no, that was Section 10.

Q. In 30-22?

A. Yes sir; I think that is where the Lucille was. In those early days we had no way of knowing—this wasn't surveyed when I was in there—we had no way of knowing the sections. It must have been there. You can get a log of that well from Dallas at Coalinga. He is secretary of the Producer, isn't he? Who knows Dallas? Some of you ought to know

him. He was the **[1492]** Lucille man. R. W. Dallas, I think is his name.

Q. Did you mention a well in Section 1 of Township 30-21?

A. No sir.

Q. Did you mention a well in Section 12, Township 30-21, in your direct testimony?

A. Yes; McKittrick Oil Company.

Q. What did you say about that well? Was that one that you say was abandoned?

A. Yes.

Q. Do you know of a well immediately north of that in Section 1 of the same township and operated by the McKittrick Oil Company or drilled by the McKittrick Oil Company?

A. No; they had a well on the crest of that hill. I could point out that well to you there.

Q. Did you mention a well in Section 6 of 30-22?

A. Yes sir; the Sea Breeze.

Q. Isn't it a fact, Mr. Howk, that on Section 1 in Section 12, of Township 30-21, and in Section 6 of Township 30-22, there were successful and producing wells drilled by the McKittrick Oil Company and by the Nacarimo Oil Company and by the U. S. Oil Company, and that the U. S. Oil Company at the present time is selling oil from those wells?

A. They have thick oil there.

Q. And that is right where you say the wells were abandoned?

A. The Sea Breeze on the extreme south end of 6,—the Sea Breeze abandoned that well.

Q. Don't you know on Section 6 they are selling oil now from a producing well, or do you know it?

A. I know that the Nacarimo have oil there.

Q. Do you know that they are selling oil?

A. No; I don't know that.

Q. Are you willing to testify under oath that they are not **[1493]** selling oil from that well?

A. I have not been there; I don't know.

Mr. Lewers—There is no need of getting that manner of addressing a witness. I protest that it is unfair to him—

Mr. Mills—I know it is not necessary for you to teach me how to examine the witness.

Mr. Lewers— —to examine a witness in that way.

Mr. Mills—I don't think Mr. Howk is taking any offense at my manner?

A. No; I consider that you are very much interested.

Q. Mr. Howk does not need your protection. He is well able to take care of himself.

A. I know that the oil is very heavy in there.

Q. The McKittrick Oil Company had a contest with the Southern Pacific Railroad on Section 1 in 30-21, didn't they?

A. I don't know.

Q. At a time when the railroad company endeavored to get the land in that section. It was an odd-numbered section. They were trying to get it under

the railroad grant conveying agricultural land. And the McKittrick Oil Company wanted it for oil purposes. Do you know anything about that contest?

A. No sir; I don't know anything about it.

Q. I believe you referred in part of your testimony to a Standard well in Section 12, 32-23. Am I correct?

A. They have taken their rigs away from the center of the section.

Q. Don't you know, as a matter of fact, that the Standard Oil Company has on the northeast corner of that section in Township 32-23, one of the best wells in the field?

A. Yes.

Q. You don't want it to appear that because they took some casing out of one well in that section, that your testimony shall **[1494]** condemn that section as an oil proposition, when they have one of the best wells in the field there?

A. That is a little over a quarter of a mile, isn't it?

Q. Yes.

A. Then there is that sand again, as you say, continues going up, and shows that it goes up there.

Q. Do you want to condemn that section because they abandoned one well?

A. I condemn no section at all.

Q. As a matter of fact, has it been your experience that in an oil field where you say the true test is the drill, that a drill which goes 1700 feet proves

anything as to the territory beneath that drill at 1800 feet?

A. It is all owing to the formation. That would take a chemist.

Q. You mean a geologist?

A. A chemist.

Q. Then you would have to get an expert chemist after the drill stopped at 1700 feet, to see if there was oil at 1800 feet?

A. If it was on the same formation, it ought to show some little indication that might be below there.

Q. When you stop a rig at an arbitrary 1700 feet, do you go and get a chemist to see if there is oil at 1800 feet?

A. No; they don't generally do it.

Q. Do you think they might do it?

A. That is a question. That is another hard question.

Q. Assuming that the drill has stopped at the 1700 foot level and the tools blew out, you say now, as I understand you, that with the use of a chemist he could tell whether if that drill had gone a hundred feet further he might have struck oil?

A. No; I don't say that he could tell. There might be an **[1495]** indication of gas below that, 50 or 20 feet or 10. And there might be a clay formation which would shut everything off.

Q. Does the drill in your opinion as an oil man, prove anything lower than the place where it stops,

as to whether the land below that contains petroleum or not?

A. Absolutely no.

Q. Chemist or no chemist?

A. Chemist or no chemist.

Q. As a matter of fact, in each one of these wells in which you say the company pulled their casing and abandoned the well, if the drill had gone further it might have struck oil?

A. Yes.

Q. So all it proves, according to your idea as an oil man, is that at that particular spot for the distance at which the drill stopped there was no oil?

A. That is all.

REDIRECT EXAMINATION
OF
R. K. HOWK

By Mr. Lowers—

Q. In your experience have you found that there was a gentle undulating blanket of oil sand lying under all of any given territory as developed by wells?

A. Uniform, you say?

Q. Yes.

A. No; it has proven different by the drill today. As I explained earlier to Mr. Mills, on these anticlines, going on either side, you go to a depth that shows in our flat country, that, as you say, the oil would follow out.

Q. Is it not a fact that in many cases where ac-

cording to the estimates, the oil-sand ought to be struck at a particular depth, judged by other wells, that the drilling at other places **[1496]** has not even shown sand, let alone oil?

A. There are cases, yes. They are still in the shale in some of them that they have abandoned. Mr. Crandall has two or three experiences that way. The Golden Gate has that experience and they are not far from producing wells. Still further on the Honolulu people got the oil.

Q. Then if the assumption made by Mr. Mills that the sand is deposited uniformly over the bed of that entire sea as it originally existed, is not correct; and if the proper assumption is that the sand containing oil would be found near the shore lines, you would expect if you got out from the shore lines into the fine sand too fine a sand for oil? Is that correct?

A. In what way? I want to get that.

Q. Mr. Mills has made the assumption as a geological fact that sand was deposited uniformly over the entire bed of the San Joaquin Valley from mountain to mountain by the original inland sea. Suppose, instead of that being the fact, that the coarse sand which carries the oil was deposited only near the shore lines by the ordinary processes of erosion and sand deposits. Isn't it a fact that as you went out further you would get finer and finer sand and finally it would be a fine silt or mud and not have any oil at all?

A. It would seem that way.

Q. In 1904 would you agree, from what you knew of the entire situation in that country, with Mr. Youle's statement that the Elk Hills were the best oil proposition around there?

A. I wouldn't agree with him. I couldn't.

Q. Do you know anybody that considered that at that time?

A. I do not.

Q. Did Mr. Youle endeavor to do any work out there to your knowledge?

A. Not to my knowledge. [1497]

Q. Did he ever tell you in all your conversation with him that he considered the Elk Hills the best oil country around there?

A. No; I don't think we ever spoke of it. Not to my recollection.

Q. Did Mr. Blodget, when he was endeavoring to interest you in the Elk Hills, say anything about Mr. Youle thinking that was a fine oil country?

A. Not that I know of; not that I can recollect.

Q. Basing your answer upon your entire experience in that field and upon everything that you have observed, not only in connection with the Elk Hills but in connection with the surrounding territory on the West Side that you are familiar with—would you today be willing to spend any money in the Elk Hills for an oil well?

Mr. Mills—Objected to as not only immaterial, but the witness has not qualified himself sufficiently in

oil geology to pass on the question with any degree of safety to himself or his friends.

A. I couldn't go there and drill for oil, no, knowing what failures have been made now.

Q. By Mr. Lewers—Is that known oil territory today in any commercial sense?

A. Not that I ever saw. And I have been to those wells. Not commercially.

Q. Is the discovery of oil in a well equivalent to making money out of that well?

A. Oh, no.

Q. What proportion of the wells, in which oil is discovered pay?

A. That is a hard question.

Q. Approximately. I know you cannot give it accurately. [1498]

A. That is a very hard question. That date I have not followed up. There is a man who could tell better than I.

Q. Referring to Mr. Martin?

A. Yes. That is his business.

Q. But he won't.

A. If he asked me what a piece of pipe was worth, I could tell him. But that is a very hard question. Depth governs one part of it. Quantity at that depth governs another. And the cost in that locality. That is the only way I can answer that question.

Q. By Mr. Mills—And the price of oil and so forth?

A. Yes sir. That is a very difficult question. Un-

less you go to the actual data it is a very difficult question.

Q. By Mr. Lewers—Did I understand you to say in answer to Mr. Mills that your observation had shown out there in the Midway field that at one place you would have deep wells producing oil and a short distance from there shallow wells in which the water came in?

A. On 25 Hill we have water. Then we go down and we have the wells of the Standard 30 off towards Maricopa, and then we get down into water.

Q. In the middle of the valley?

A. Where it runs off 25 Hill into 35 Hill anticlinal in an easterly direction.

Q. So far as the occurrence of oil is concerned, could you term that field spotted?

Mr. Mills—Objected to as extremely leading and suggestive.

A. It is spotted as to where you get the oil, on account of the so-called dip of this formation where they find the oil.

Q. By Mr. Lewers—Do you know any oil field that is not spotted, so far as the occurrence of oil is concerned?

A. No; I do not. The Kern River comes the nearest to being [1499] in that class of not being spotted, because it is a sort of a blanket—of uniform depth, I mean.

RECROSS EXAMINATION
OF
R. K. HOWK

By Mr. Mills:

Q. What do you mean by "spotted"? Do you understand what the term is?

A. Holes that don't produce commercially.

Q. Then you mean where the persistence and uniformity of the oil-sand is interrupted by some intrusion underneath the surface, and a well is sunk where that intrusion occurs? That is what you mean by "spotted"—where it would come in a dry hole?

A. The Midway field is so large—that strike along where the production first came and they have been developing out—the only way to answer that in this dipping from this one side of the valley to the other, there may be a place where you would get it at 2000 and in another place you wouldn't get it at 6000.

Q. You don't mean that anybody went 6000 feet, do you?

A. No; I do not.

Q. You are using those as arbitrary terms?

A. Yes; that is all. It would make it spotted as to getting your oil, because in one place you get it and in another it would be too deep for you.

Q. If you got water in place of oil—in a syncline —would you call that a spot in your definition of spots?

A. No

Q. What would that be? A mere speckle?

A. A mere speckle.

Q. As a matter of fact, you never heard the word spotted **[1500]** used in that connection?

A. No. In other words, a great many wells don't produce at all. It might be they are, as you say, buggered.

Q. That is, some mask as to the true character of what the well produced?

A. Yes.

BENJAMIN M. HOWE, called on behalf of the defendants, having been first duly cautioned and sworn to testify the truth, the whole truth, and nothing but the truth, testified as follows:

DIRECT EXAMINATION

By Mr. Lewers:

Q. Your home is in Los Angeles, is it, Mr. Howe?

A. Yes.

Q. Where is your office in Los Angeles?

A. 401 Union Oil.

Q. Are you connected at the present time with any oil companies?

A. Yes sir; several.

Q. Will you state which companies they are?

A. The Sqaw Flat Oil Company, operating in Ventura county; Pan-American Oil Company and Pencland Union Petroleum Company operating in Maricopa.

Q. What connection did you have with those companies? In what official way, if any?

A. Secretary and manager.

Q. Are any of those companies actually producing oil at the present time?

A. We have a small production in Ventura county, and we are ready to bring in wells in Maricopa.

Q. How long have you been engaged in the oil business, [1501] Mr. Howe?

A. About eighteen years.

Q. And where?

A. California altogether.

Q. And what fields?

A. I worked in Los Angeles, Kern River, in the West Side fields and in several counties along the coast, wild-catting.

Q. You have referred to working in several counties wild-catting. Do you mean by that prospecting for new fields?

A. Yes sir.

Q. Have you had any experience in connection with the actual operation of drilling?

A. Yes sir; I have worked in all branches of the business.

Q. And when did you first begin working in the actual drilling work?

A. About 1898.

Q. 1898? And where was that?

A. Drilling for water-wells at San Bernardino. I dressed tools previous to that.

Q. When did you have your first experience in

the actual drilling for oil, as distinguished from water?

A. Your first experience is when you are dressing tools, in the Los Angeles field. You very often work in the driller's place in that capacity.

When did you first go to the West Side field?

A. I went to the Kern River fields in December, '99; and then I went in the spring of 1900 over to San Luis Obispo County and returned to the Kern River field in October, 1900, and worked there until March, 1901, and then went out to the West Side field on Section 24.

Q. In what township?

A. 32-23. **[1502]**

Q. How long did you work there?

A. I stayed there until the latter part of May.

Q. Of that year?

A. Yes sir.

Q. And when did you return to that country?

A. I returned in March, 1908, to the Sunset field again.

Q. During that first period when you were in there in 1901 were you at McKittrick at any time?

A. Yes sir.

Q. Will you state generally over what portion of that country you went?

A. Well, I went out there in March, 1901—I had charge of the Kern Crude Oil Company, they call it, I believe. Captain Lucy was manager at that time. I had charge of the work and running one tour. I

had my own team there and while we were off tour I was over a good deal of country over at McKittrick and the Buena Vista Hills and the Elk Hills, looking to see if we could find land that looked favorable for oil purposes, to make some locations.

Q. As the result of those trips did you make any locations?

A. I made no locations in the Elk Hills. I saw nothing there that would lead me to infer that it was worth while to go in there.

Q. At that time was there anything going on in the Elk Hills?

A. No sir.

Q. Were there any locations in there that you observed?

A. There were locations made in there at that time, but on what sections I would not be in a position to state now.

Q. What work was being done at that time on any of those locations?

A. About all the work that was done that I could see was **[1503]** the posting of the location notices.

Q. Now, what was the effect of the discovery of oil in Kern River field on the location of ground in that county?

Mr. Mills—That is objected to as immaterial.

A. Simply to stimulate the people into the idea, after seeing the rapid development in the Kern River field, that the possibilities of the oil business were great, and, like all districts, they would locate the

country for miles and miles around on the chance that it might develop later into oil.

Q. And what sort of persons went in on these locations?

A. Most any one that could get in. It was not confined alone to oil men, but a lot of the business men and clerks and people around Bakersfield would go out and file locations—people that knew nothing about the oil business would go out there and take a chance.

Q. At the time when you entered in 1901 where was the actual oil production at McKittrick, generally?

A. Right close to the town there, back in that little narrow strip south and west. The Shamrock well was there, I think, and there were two or three companies operating there by Laymance. I don't know whether E. J. Miley was connected with the oil companies operating in there back of the town or not. They were drilling in there.

Q. And what was the condition, so far as development was concerned, down toward the Midway at that time from McKittrick?

A. There was very little development between what was known as Taft now and McKittrick. There were a few rigs scattered in there, but the one producing well was on Section 22, the old Bay City.

Q. In what township?

A. That would be 32-23. That would be two miles west of where I was. **[1504]**

Q. And what was the general impression, if you know, amongst oil men as to where the oil was at that time?

A. It seemed to be the general opinion that it was confined to the hills on the west side of the district there.

Q. You mean by the hills, the Temblor Range?

A. Yes.

Q. Were the Elk Hills at that time considered by oil men in that vicinity as being oil land?

A. I never heard any one state that it was considered to be oil land.

Q. Were you in touch with oil men in that vicinity while you were there?

A. Yes sir.

Q. When was it, if you know, Mr. Howe, that the attention of actual developers was directed toward the Elk Hills?

A. Not until about 1910. That was stimulated from the discovery of the oil—

Mr. Mills—Just a moment, Mr. Howe. I object to the witness volunteering anything not responsive to the question.

Q. Mr. Lewers—I will ask you, by what was that stimulated?

A. By the discovery of oil in the Buena Vista Hills.

Q. On what properties?

A. On Section 10. I think it is by the Honolulu people.

Q. What effect did that discovery have on the Elk Hills?

A. It caused a good many locations to go into the Elk Hills district, from the fact that the Buena Vista Hills were covered by locations being held by the Honolulu people, and that there was no available territory there, and the only open territory was to the north through that flat between the Buena Vista and the Elk Hills, and in the Elk Hills.

Q. And what companies went in there that you know of, into the Elk Hills? **[1505]**

A. The Hale & Heffner. Their locations were on the south side of the hill. The Hart Crude Oil Company was in there.

Q. Who else?

A. I don't know all the locators through there. They had the Barnadon Oil Company that had a series of sections in the Elk Hills, and the Associated was there.

Q. The Associated Oil Company?

A. Yes.

Q. Was there a company called the Scottish Oil Company?

A. There was quite a lot of oil companies in there. I kept no track of all the oil companies that were operating in there.

Q. When were you last in there?

A. It would be about a year and a half ago.

Q. You have not then examined the territory recently?

A. No sir.

Q. In your opinion, is the Elk Hills oil territory?

Mr. Mills—I object to that question for the reason that the witness has not yet qualified himself as competent to pass an opinion upon the Elk Hills territory.

A. I wouldn't call it oil territory.

Q. By Mr. Lewers—Do you remember the names of any of the early locaters in the Elk Hills? Particularly, do you remember a man by the name of Bartlett?

A. Yes; I remember there was a Bartlett that had a quarter-section of land in there on contract with the locaters.

Q. When was it that Bartlett was in there?

A. That would be in 1901.

Q. Where did Bartlett come from?

A. He came from Boston originally, I think.

Q. What did he do in there?

A. He promoted several oil companies in and around the Sunset field. He acquired, I think, a 40 or 60-acre lease in **[1506]** the Sunset district. He partitioned it off into small holdings and organized several oil companies. His method to increase his acreage would be to acquire outside land. One company, I know, particularly, had a quarter-section of land—

Mr. Mills—I again object to the witness volunteering any statement not responsive specifically to the question asked.

Mr. Lewers—This is responsive. You may proceed.

A. —to increase the acreage of the companies which he organized. In one of the companies he had a quarter-section of land in the Elk Hills. What section it was, I do not now remember.

Q. Did he have any oil on any of the land down near Sunset?

A. Yes sir.

Q. You mean he had the oil down there and the land up in the Elk Hills, and sold stock on that?

A. Yes sir.

Q. Did he invest any money in development in the Elk Hills?

A. He had no investment at the time.

Q. How was your attention directed to that matter?

A. It was called to my attention through my wife's uncle who was a resident back in Massachusetts, whom Mr. Bartlett was seeking to have invest.

Mr. Mills—I object to that as wholly irrelevant and immaterial.

Mr. Lewers—You may remember Mr. Bartlett was referred to by Mr. Blodget as one of the men that went in there.

Mr. Mills—I don't doubt that at all, but it is wholly irrelevant about the witness' relative back in Massachusetts.

Q. By Mr. Lewers—Now, Mr. Howe, basing your answer upon your experience in the oil business and

in the oil fields, what, in your opinion, is the practical utility of geological experts in determining the existence of oil in undeveloped territory? **[1507]**

Mr. Mills—Objected to for the reason that the witness has not shown himself qualified in any way to pass any such opinion.

A. Well, the people that make a study of formation have to base their opinions, of course, wholly and exclusively, on the surface indications. Very often they are badly fooled in their deductions. They can see no further into the ground than anybody else.

Q. By Mr. Lewers—How can you determine whether there is oil in the ground?

A. By actually drilling a well reaching the formation which the expert tells you is the oil formation, it will prove whether there is oil down in the sand or whether the sand exists at that point or not.

Q. And in your opinion can that be determined in any other way than by the drill?

Mr. Mills—Objected to because the witness is manifestly incompetent to judge, from the evidence he has already given, as to whether it can be determined in any other way or not.

A. Deductions can be made from the surface indications that the formation extends and is in place, but that is not necessarily proven to be the case.

Q. By Mr. Lewers—Have you had any experience in testing out the predictions of geological experts?

A. I have been out on several wells which were located and drilled on the strength of experts examining the ground.

Q. What experts do you refer to?

A. Mr. Arnold.

Q. Mr. Ralph Arnold?

A. Ralph Arnold.

Q. Any one else?

A. Mr. King. I think the name was.

Q. What is his first name? [1508]

A. I think it is J. N. I am not sure.

Q. Where was it that you had this experience in connection with the prediction made by Mr. Arnold?

Mr. Mills—Let me interpose an objection to the immateriality and irrelevancy of that question.

A. The Vallecitos district.

Q. By Mr. Lewers—Where is that?

A. San Benito county.

Q. Did you find any oil?

A. No sir.

Q. And was the position of those wells indicated by the advice given by Mr. Arnold?

A. One of the wells drilled in that locality was.

Q. And was the depth indicated by Mr. Arnold at which oil would probably be found?

Mr. Mills—Objected to as extremely suggestive and leading.

A. Yes sir.

Q. By Mr. Lewers—And was oil found at that depth?

A. No sir.

Q. Was any oil-sand found at that depth, if you know?

A. No.

Q. Were you in any part of the West Side country, in 1904, Mr. Howe?

A. I was there in the fall of 1904, I think, for a few days—at McKittrick.

Q. And at that time were you over in the Elk Hills at all?

A. On the western edge of them.

Q. For what purpose did you go over there on that occasion?

A. I went down to look at some land that Mr. Shepherd owned or was leasing.

Q. Do you know his initials?

A. A. D. Shepherd. **[1509]**

Q. By Mr. Lewers—Where was this land that Mr. Shepherd had under lease?

A. South and east of what is known as the 1901 Oil Company.

Q. Then it wouldn't be in the Elk Hills?

A. It would be right on the edge of the Elk Hills; just about on the western edge, if I remember.

Q. Will you give that section?

A. It was east of what was called the 1901 Oil Company, if I remember correctly, the name of the company. I can't recall the section.

Q. Did you make any examination of that land?

A. Yes sir; I was out there two days looking at it.

Q. For what purpose were you examining it?

A. To see whether I considered it was practical for Mr. Shepherd to hold that for future developments for oil.

Q. And what conclusion did you come to?

Mr. Mills—I object to that on the ground that the witness has not yet shown himself qualified to pass an opinion upon oil land.

I advised him not to drill; that I had obtained the data of the drilling in the vicinity, and it didn't look like a favorable proposition.

Q. By Mr. Lewers—Did you hear the Elk Hills discussed as being oil land at that time?

A. No sir.

CROSS EXAMINATION
OF
BENJAMIN M. HOWE.

By Mr. Mills:

Q. You say that in 1898 you were drilling water-wells over in San Bernardino county. At what depth is water found in San Bernardino county where you were drilling? **[1510]**

A. Surface water was about 60 feet. We encountered several stratas at various depths up to 600 feet.

Q. How deep did you drill there? What was the deepest well in San Bernardino county that you drilled?

A. About 600 feet.

Q. What form of rig?

A. We used a Star rig.

Q. Will you describe what the process was that was used with that sort of a rig in drilling a water-well?

Mr. Lewers—Objected to as not cross-examination and not relevant to anything in this case.

A. The Star rig is a light portable rig on the same principle as the Standard rig, with a cable system and walking-beam and the same tools, only lighter.

Q. In your experience as a driller and tool-dresser, what sort of rigs were you working on most of the time?

A. Standard rigs—oil rigs.

Q. Entirely so?

A. Yes sir.

Q. You are not a devotee of the rotary rig?

A. I have drilled wells with the rotary rigs also.

Q. In the oil field?

A. Yes sir.

Q. I understood you to say that you did all of your drilling with a Standard rig. Am I mistaken about that?

A. No; I have drilled two or three wells with a rotary rig.

Q. Whereabouts did you drill with a rotary?

A. On the wild-cat well in San Benito county, and at Hollister. I drilled several wells around Oak-

land during the summer of the earthquake, in 1906.

Q. Did you ever use a rotary rig in the West Side field at any time? **[1511]**

A. Yes sir.

Q. Whereabouts?

A. On Section 4.

Q. There are a great many Sections 4. In what township?

A. Section 4, 11-23.

Q. Down in Sunset?

A. Yes sir.

Q. What was your business prior to the year of the earthquake when you were drilling wells at Oakland?

A. I was drilling wild-cat wells in Santa Clara county.

Q. Have you at any time been connected with the Southern Pacific Railroad Company?

A. No sir; only as a passenger on the trains.

Q. Or with the defendant Southern Pacific Company?

A. No sir.

Q. Have you had any business relations with the Kern Trading & Oil Company?

A. No sir.

Q. Or the Associated Oil Company?

A. No sir.

Q. Or the Pacific Improvement Company?

A. The only time I had any connection with the Pacific Improvement Company is when I went down there for Mr. Shepherd.

Q. Was Mr. Shepherd connected with the Pacific Improvement Company?

A. I think he was the manager at that time.

Q. How long were you employed by Mr. Shepherd?

A. Just simply to go down and make that report.

Q. Now, you say you came from the Kern River field after you returned from San Luis Obispo, to the West Side field, in March, 1901?

A. Yes sir. **[1512]**

Q. What time in March was that?

A. The 15th.

Q. And you stayed there on the West Side field from that time until May of that year?

A. Yes sir.

Q. What time in May did you leave the field?

A. In the latter part of May, I think.

Q. You were there about two months and a half?

A. Practically two months and a half at that time.

Q. While you were at work on Section 24 of 32-23? Is that correct?

A. Yes.

Q. What was your business on the well on Section 24 that you referred to?

A. I was a driller and had charge of operations.

Q. Whom were you working for?

A. Captain J. S. Lucy, the manager of the company.

Q. And what was the name of the company?

A. I think they call it the Kern Crude Oil Company.

Q. Did you live on the location in Section 24?

A. Yes sir; we had our own camp out there.

Q. How far is Section 24 of 32-23 from the nearest land in the Elk Hills?

A. Section 24 would be about 8 miles, I think.

Q. Now, at that time you say it was the belief of oil men that the oil zone on the west side of the field was contained where?

A. Through that range of hills running from Sunset through the McKittrick.

Q. Did you know anything about oil formations when you went to the West Side fields?

A. What I had picked up and what I had been able to read **[1513]** and study from books on the subject, trying to obtain some knowledge of the different formations that were passed through, and endeavoring to obtain some knowledge of the oil country.

Q. Where have you principally learned oil geology, if you know anything about it, before you went to the West Side field?

A. Here in the Los Angeles field and the Kern River field.

Q. Now, in the Kern River field the oil formation is uniformly at substantially the same depth all over the field, is it not?

A. Very near.

Q. And within the limits of that oil zone the sink-

ing of a well will invariably strike oil, if you drill deep enough?

A. In that field, in the proven area.

Q. Now, you say that you had occasion, while you were at work as a tool-dresser drilling on Section 24 of 32-23, to go out with a team for the purpose of examining lands for their oil possibilities? Is that correct?

A. Yes.

Q. And you say you made a trip into the Elk Hills?

A. Yes sir.

Q. What month was that?

A. It would be in April.

Q. Where did you go on that trip into the Elk Hills? Just describe your course?

A. We drove through the flat there between the Buena Vista Hills, and drove around through the hills there in an endeavor to locate this particular quarter-section which I think was about what would be the center of the Elk Hills district. I don't recall the numbers.

Q. What township and range?

A. It would be in 32-21, or 32-22, or something like **[1514]** that.

Q. 32-21 or 32-what-22?

A. Yes.

Q. You can't remember the sections you were in?

A. I don't recall the section at that time; no sir.

Q. Don't you know as a matter of fact, Mr. Howe,

that you were from six to twelve miles away from the Elk Hills when you were in 32-21?

A. Six to twelve miles away?

Q. Yes; from the nearest land in the Elk Hills.

A. I couldn't say that that particular section of land that I was looking through would be in 32-21.

Q. You said you went to the center of the Elk Hills district, in 32-21, or 32-22?

A. Yes sir.

Q. Are you as positive of that as of any evidence you have given here this morning?

A. No; I wouldn't be distinctly positive that the exact location of the quarter-section was there.

Q. Are you as positive that the Elk Hills are located in 32-21 as anything you have testified to this morning?

A. Part of the Elk Hills is in 32-21.

Q, What part of them?

A. The eastern part.

Q. The eastern part of the Elk Hills would be in 32-21? As a matter of fact you don't know where the Elk Hills are, do you, Mr. Howe?

A. They are directly north of the Buena Vista Hills.

Q. What township and range are the Buena Vista Hills in?

A. In 32-24.

Q. So that the Elk Hills would be in 32-21, and would be directly north of it? **[1515]**

A. They would be in 32—it would be in 31-24.

Q. Then you are not as positive about it as you were, are you—about the location of the Elk Hills? You cannot positively state on your oath what township and ranges are included in the Elk Hills?

A. I can't describe it all; no sir.

Q. And you didn't know where much about the Elk Hills, at that time, did you, after the two months and a half experience in the West Side field?

A. I know where the Elk Hills are; I have been over them.

Q. You don't know what township and range they are in now, do you—positively?

A. No; I couldn't say positively.

Q. What were you looking for when you went into the Elk Hills in 32-21, or 32-24 or 32-22, whatever township and range you give?

A. Looking for this quarter-section of land that had been under contract by this Bartlett. I think he called it Dirigo Oil Company.

Q. Did you go in there for the purpose of looking for this quarter-section of land or did you go there, as you have testified on your direct examination, for the purpose of examining the land with a view of ascertaining whether it was oil territory or not?

A. I went in for both purposes.

Q. In passing on the question of whether it was oil territory, what indications would you look for as an oil man? What surface indications would you look for?

A. Look for the outcroppings of the oil-sands.

Q. And anything else?

A. And the shales—the shale formations.

Q. Anything else? **[1516]**

A. I would look to see how the formation was in place, and see if the sands were discolored from possible oil that was contained—the seepage indications.

Q. Anything else?

A. And the character of the country.

Q. Would you look for gas-blow-outs?

A. If you see those you would take those into consideration.

Q. Now, if you found oil seepages, oil-sands or croppings of sands, and gas-blow-outs, what would that indicate to your mind in a country in which you were looking for it?

A. It would indicate that it was a possible oil district.

Q. And in determining where you would place your drill, what reference would you make to the position of the oil outcroppings of sand, the gas-blow-outs, oil seepages, and so forth?

A. In the first place, you would see which way the formation was dipping underneath the surface of the ground, and then you would attempt to define the angle of the dip and see how fast it was dipping underneath the surface, and endeavor to go back on the formations to where you could reach the depth of several hundred feet with the oil bearing formations which you had found at the outcrop, to see if there

was oil contained in the sands that cropped to the surface.

Q. Then you regard it as quite important to find these indications of the cropping of sand, the angle or dip of the formation, and the structural condition, in determining the place where you would sink your drill, would you not?

A. Certainly.

Q. Have you acquired sufficient information from your reading of geology and from such experience as you have had as a driller, to know that the petroleum is contained in depositions of sand, which are uniform and persistent in an oil field?

A. Yes. **[1517]**

Q. You understand, do you not, that these sands have been laid down by the deposition of the sea in a uniform manner over a wide area, and that when the oil migrates into these sands, it follows that sand sometimes for many miles, do you not?

A. Yes; that is true.

Q. And unless the sand is broken—that is, unless the formation in which the oil migrates is broken up underneath the surface by some convulsion or by some intrusion through strain or folding underneath the surface, you would expect that oil to be present all over that sand formation persistently, would you not?

A. It would be presumed to be.

Q. Was that the theory which you understand to

be entertained by oil men at the time you first visited the West Side field?

A. Yes.

Q. That was generally the theory, was it not, among practical oil men?

A. The opinion; yes.

Q. And where along the contact of the main range of mountains you found stains or discolored sand croppings which you took to be oil-sand and ascertained the angle or dip off into the valley, you would expect then to find the oil following that sand formation cut under the valley and into any unlift, unless it was broken up in the meantime by something underneath the surface?

A. Unless it was pinched out.

Q. That is, where the sand itself has pinched out by the fact that it has not been deposited by the sea?

A. Yes.

Q. And wherever that sand is present and where it is not broken up by intrusions or geological disturbances underneath the surface, you would expect to find the oil present in that formation? **[1518]**

A. For a ways, yes.

Q. How do you determine as an oil man how far that exists? You say "for a ways." Why do you put an arbitrary limit on it?

A. Because after the outcrop has started down under the formations, it may dip down faster than it does at the surface.

Q. I say unless the angle had been disturbed by

some convulsion of nature or folding or strain, you would expect it at the same angle?

A. Most all the oil fields—

Q. Just answer my question.

Mr. Lewers—Just allow him to answer.

Mr. Mills—I will allow him to answer my question at all times.

A. I was going to explain what I meant by "for a ways." In nearly all oil fields, the sand has a certain limit for oil, and when you pass that limit it is water.

Q. That water is generally found in the synclines, isn't it?

A. Yes.

Q. Water is heavier than oil?

A. Yes sir.

Q. And has a tendency to force the oil up onto the sides of the anticlines?

A. Yes sir.

Q. Do you know enough about geology and geological conditions in the Elk Hills now to say on this record whether the Elk Hills are a structural fold, unbroken by any disturbance visible at the surface.

A. No; I couldn't say.

Q. Do you know?

A. No.

Q. Was your examination in such detail that you can now [1519] state whether that is a fact or not a fact?

A. I couldn't make that statement from the fact that it requires a longer period of examination of the territory than what I was able to give it, to give any thorough testimony in regard to the country.

Q. How much of an examination did you give the Elk Hills at that time?

A. I was through that locality on numberless occasions. I had my own team.

Q. Do you mean a number or numberless?

A. I was possibly there through that district ten or fifteen times.

Q. I mean in the two months and a half that you were in the West Side fields.

A. I was probably in the hills ten or fifteen times.

Q. Did you on any of those occasions get onto what is known as Section 32 of 30-24?

A. I couldn't say that it was that exact section.

Q. You know, do you not, that there is an extensive oil cropping or gas blow-out in the Northwest quarter of Section 32, 30-24?

A. I heard of that; yes.

Q. And you knew of that in the two months and half that you were in the West Side fields?

A. No; I couldn't say that I did.

Q. You didn't know about that at that time?

A. No sir.

Q. You yourself in looking for indications of the presence of petroleum in there either in the Elk Hills or the Buena Vista Hills, which I understand

you did,—did you go into the Buena Vista Hills also?

A. Yes sir. **[1520]**

Q. Before I complete this question, did you find evidences—conspicuous evidences—of a gas blow-out or oil-cropping in the Buena Vista Hills in Section 11 of 32-24?

Mr. Lewers—Objected to as indefinite. Do you mean gas blow-out or oil-cropping? They are not the same thing.

A. There is a sand blow-out there, evidently from gas.

Q. By Mr. Mills—Did you discover that at the time you went in your peregrinations about that field in those ten or fifteen trips that you took in those two months and a half?

A. Yes sir; I was there in the Buena Vista Hills.

Q. You saw that?

A. Yes sir.

Q. What did that indicate to you as to the oil geology of that particular region?

A. It would indicate to me more presence of gas than oil.

Q. Do you mean to draw a distinction between gas and oil? That gas is present where there is no oil?

A. Yes sir.

Q. And from your geology, as you understand it, in that particular field, you may have gas where there is no oil anywhere?

A. Yes sir.

Q. Is that your understanding?

A. Yes sir.

Q. You don't see any connection between the gas and the oil, do you?

A. There is a connection; yes.

Q. What is the connection?

A. Gas in some localities is in what they call the domes of the oil-sand.

Q. What is a dome?

A. It would be the upraise of the oil-sand. **[1521]**

Q. Such as on the Buena Vista Hills?

A. Yes sir.

Q. Or in the Elk Hills?

A. Yes sir.

Q. That is where the formation has been lifted up by some structural stress of the interior, and folded up there? Is that correct?

A. Yes sir.

Q. Now, where you find gas in a dome such as you have described, in the Buena Vista or Elk Hills, what connection then would that have with the oil? Where would the oil be with reference to the gas?

A. It would be at the lower level.

Q. But you would find in every instance, would you not, in that field where you find gas coming from a dome of that kind, oil beneath it?

A. You would find oil at probably a considerably lower depth.

Q. But it would be there somewhere, wouldn't it?

A. But it might be quite a ways from there.

Q. But it has an ultimate connection at some point?

A. Yes.

Q. So that gas, in your opinion, from what you read of oil geology, has a distinct connection with oil or petroleum?

A. Yes sir.

Q. Then you would say, would you not, that a discovery of a gas blow-out in the Buena Vista Hills would be an indication to you that there was at some point petroleum, or there would not be that connection?

A. There must have been oil somewhere within a reasonable distance of that gas blow-out. It might be several miles.

Q. Then, if you found a gas blow-out such as that over in **[1522]** the Elk Hills, you would form the same opinion about the Elk Hills that you did about the Buena Vista Hills, would you not?

A. That might be a gas property, or you might take that same indication, after you saw the gas blow-out, and figure that at some distant time back it had been an oil formation, and through some disturbance of nature of some kind the oil had been burned out, and it would be a burned out oil-sand which contained no oil.

Q. That is to say, that the oil got out and burned, do you mean?

A. That is, from some cause in nature, the sand was denuded of the oil which might have been there centuries ago.

Q. Do you mean waste of oil by evaporation or actual ignition or burned by fire when you say burned out?

A. I wouldn't say—that is an expression they use.

Q. You have no precise idea of just what is meant by that, do you,—by burning out? You don't know whether it is from conflagration or whether it is from natural waste by evaporation?

A. We figure that it is the natural waste.

Q. Did you find this oil seepage or cropping of sand that you heard of on the occasion that you went out to the Elk Hills?

A. No.

Q. And you didn't find any other indications of oil?

A. No sir.

Q. Now, assume that you had found this indication on any one of those trips—this oil seepage in Section 32 of 30-24—what would that have indicated to your mind at that time?

A. If I had discovered gas blow-out?

Q. Yes.

A. Well, it would have indicated that there might be a possible chance for an oil district there.

Q. And on such evidence as that, if you were looking for [1523] oil land to locate it, would you have made locations?

A. I might have made locations, but I doubt if I would have invested any money in it.

Q. You were not a man of very large means, were you?

A. I was in a position to command some money at that time.

Q. How much money could you have commanded at that time?

A. I could have raised twenty-five or thirty thousand dollars for development.

Q. How far do you think twenty-five or thirty thousand dollars would go toward developing territory over in the Elk Hills, assuming that the oil formation is at least 2500 feet deep?

A. It would go a very small way.

Q. So your ability to command $25,000 would not have helped you much in the development?

A. Not at that time; no.

Q. Assuming that the petroleum deposits which are in the Elk Hills are at a depth from twenty-five to thirty-five hundred feet, or in excess of that, from the surface, would you regard that as a territory for a poor man to let alone?

A. Yes sir.

Q. It would be, in your opinion, a territory to be developed by men of considerable capital, would it not?

A. It would require considerable capital to develop it.

Q. Would you regard a well in the Midway-McKittrick field producing 406 barrels on the gauge, measured for several days, as a good or bad well?

A. For how many days?

Q. Well, for several days, before it was shut down.

A. Several days? What do you mean? Two or three days or thirty days?

Q. I mean two or three days.

A. I would not consider on that test that there was oil in **[1524]** paying quantities in that well.

Q. Would you regard it as an oil territory?

A. I would regard it as a favorable indication, to be demonstrated by a test of from thirty to sixty days.

Q. Will you please read the last question? (The reporter reads the question.) Would you regard it as an oil territory?

Mr. Lewers—Objected to as indefinite. What do you mean by "an oil territory?"

Mr. Mills—Never mind what I mean. I will conduct this examination.

Mr. Lewers—I submit that the question is unfair unless you can define what you mean by an oil territory. The witness has answered that it is not a commercial oil territory.

Mr. Mills—I call your attention to the fact that you frequently interrupt me in my examination and are always solicitous for plenty of leeway when you are examining witnesses yourself. I am not trying to mislead the witness. You can understand the question?

A. You mean as a commercial oil territory—

Q. No; I mean an oil territory. I am not talking about producing in paying quantities at all. Would you regard it as oil territory, if the well produced for two days or three days on the gauge 406 barrels of oil?

A. I would regard it as a possibility.

Q. Would you regard it an oil territory, is the question. Say yes or no, will you?

Mr. Lewers—I object to that manner of examination.

Mr. Mills—I am entitled to a categorical answer.

Mr. Lewers—I object to that as asking for a categorical answer to a question which no sensible oil man is expected to answer. Oil land may mean a drop of oil in ten miles—

Mr. Mills—This furnishes you an opportunity for another **[1525]** long speech, and the record will bear me out that your interruption is to prevent the witness from answering the question.

Mr. Lewers—I protest against that.

Q. By Mr. Mills—Have you any objection to the question, Mr. Howe?

A. Well, the proposition is this. When you talk about oil territory, I look at oil territory as a proposition that is going to pay you. If it does not pay you, I wouldn't call it oil territory.

Q. Eliminate the proposition of commercial productiveness in paying quantities. Would you regard it as an oil territory?

A. Well, if the territory produced oil, you would have to say that there is oil there.

Q. Assume that you have a coal mine which had a measure of bituminous coal eight feet in thickness, of high quality, covering 160 acres of land, which cropped at the surface with a gentle angle. Would you call that a coal property?

Mr. Lewers—Objected to as not cross-examination.

A. I would.

Q. By Mr. Mills—You would not put the qualification on it that it was commercially profitable, would you?

A. Not when you try to define it as coal territory, no.

Q. If it is five hundred miles away from a railroad and it cannot be produced at a profit, would you still say it was coal territory or not?

A. Certainly. The coal would be there.

Q. And the same about oil? If the oil is there, whether it can be produced in commercially paying quantities or not, it is oil land, is it not, in your opinion?

A. It has oil on it; yes. If you produce it from the territory, there is certainly oil there. But the question of a commercial— **[1526]**

Q. I didn't ask you anything about commercial. You inject that yourself. I just asked you whether it was oil territory. Now, as a matter of fact, Mr. Howe, if you found that on Section 24 and on Sec-

tion 26 of one township in the Elk Hills they had discovered oil, and that on another section cornering on Section 26 in the adjoining township in the Elk Hills they had produced a well which showed on the gauge for at least two or three days 406 barrels daily, and that afterwards this well was shut off so that it could not produce if it wanted to, would that modify your opinion about the Elk Hills as an oil territory?

Mr. Lewers—Objected to as a hypothetical question not based on any evidence in the case and contrary to the evidence in the case.

A. For that immediate vicinity.

Q. By Mr. Mills—To what extent would it modify it? Would you regard that immediate vicinity as good oil territory?

A. Not till it was further demonstrated.

Q. I am placing limitations in my question. Read the question again. (The reporter reads the question) What do you say?

Mr. Lewers—I submit that it has been answered.

A. The existence of the oil there has been demonstrated, but when you take it as an oil territory, as I am looking at it, on a commercial basis—

Q. By Mr. Mills—You wouldn't regard the land immediately under that drill even as oil territory, would you, Mr. Howe,—in the hole itself—you would not regard that as oil territory?

A. I would say there is oil there; certainly.

Q. But it is not oil territory in your opinion?

A. It is not oil territory unless it is a commercially paying proposition.

Q. Is it oil land? [1527]

A. You can call it oil land; yes sir.

Q. Well, I am very much obliged to you for that concession. Have you any prejudice against the government in this suit?

A. I don't know that I have.

Q. You don't know that you have? Do any of your neighbors know?

A. No sir.

Q. Have you had any trouble with the government in any way about the location of lands?

A. No sir.

Q. You are not sensible now of any particular prejudice against the government and in favor of the railroad company in this litigation?

A. No sir.

Q. When did you first hear of this litigation?

A. Several months ago.

Q. How did you hear about it?

A. Through the medium of the newspapers—the California Oil World, which I take.

Q. When were you first notified that you might be a possible witness in this case?

A. Possibly two months ago.

Q. Who notified you?

A. Mr. Jeffers.

Q. Where did he see you?

A. I think I met him at Bakersfield.

Q. What did he say to you at that time?

A. He asked me if I had ever been out to the West Side.

Q. Did he tell you what the railroad company would like to prove out there?

A. He told me—

Q. Answer that question, if you will. **[1528]**

A. What was the question?

Q. Did he tell you what the railroad company wanted to prove in the Elk Hills?

A. He told me they wanted to hold their title to the land.

Q. Did he tell you what they wanted to prove as to the Elk Hills?

A. I don't know that he did definitely.

Q. You don't know that he did?

A. No sir.

Q. Did he tell you that it was the purpose to get somebody to condemn the Elk Hills as an oil territory?

A. He told me that the railroad company wanted witnesses who had been out in the territory, as to what their opinion was as to the land—if it was oil land or agricultural.

Q. And at that time did you tell him that you had had the rich experience of two months and a half in the West Side fields in 1901?

A. Yes sir; he asked me if I had been in that locality.

Q. And you told him about the vast experience that you had over there in two months and a half?

A. Yes sir.

Q. And that you didn't find any oil?

A. Yes sir.

Q. And that you were willing to come down here and tell all about that? Is that correct?

A. He asked me if I would come and I told him yes.

Q. When did it first occur to you that you had been in the Elk Hills in 1901? Who suggested the date to you? Who suggested the date 1901?

A. It didn't require any suggestion, because I knew that I had been there.

Q. I am speaking now as to whether it was suggested at that [1529] time by either you or Mr. Jeffers as to the importance of your having been there at that certain date. Was that suggested?

A. No sir.

Q. How many times did you ever talk to Mr. Jeffers?

A. I saw him twice.

Q. Both times in Bakersfield?

A. I saw him in my office at the Union Oil.

Q. When did you have your talk with Mr. Lewers?

A. I saw Mr. Lewers this morning.

Q. Is that the first time?

A. Yes sir; the first time I ever met the gentleman.

Q. You had two months and a half experience on Section 24 of 32-23 on the West Side field in 1901, during which you went with a team several times into the Elk Hills and the Buena Vista Hills?

A. Yes sir.

Q. And you never came back to that field until March, 1908? Is that correct?

A. That is correct.

Q. And on that you are willing to go on record here as saying that in your opinion as an oil geologist—

A. I don't claim to be an oil geologist.

Q. —that the Elk Hills is not an oil territory?

A. I would consider it not to be oil territory.

Q. You are perfectly willing to say that notwithstanding all the development and the fact that they brought in a well there with 406 barrels a day —you are still willing to say that it is not oil territory in any part of it?

A. In that immediate vicinity where they have got the 406 barrel production there may be a small pool there of oil territory. The development over there has not shown it. **[1530]**

REDIRECT EXAMINATION
OF
BENJAMIN M. HOWE.

By Mr. Lewers:

Q. Have you any other information than the particular statement of Mr. Mills that there is a 406-barrel well?

A. I have no other information.

Q. And your answer is made on the basis of the proposition made by Mr. Mills?

A. Yes sir.

Q. Mr. Mills has given a good deal of attention to having that land characterized as oil land because there is some oil there. Is that what an oil man calls oil land?

A. No sir.

Q. What does he call oil land?

A. Oil land that has oil in commercially paying quantities—which will pay for the expenditure of the drilling of the wells and where he has a possibility of getting his money back in dividends.

Q. Are those two things the same thing? When you find oil in land is it always paying?

Mr. Mills—Objected to as wholly immaterial. The question in this case is not whether the land is oil in paying quantities. The question is whether it is mineral land and was so known to the railroad company before the land was selected.

Mr. Lewers—Unfortunately the authorities are all against you on that.

Q. Answer the question.

A. No sir; it is not.

Q. Have you had any experience in connection with drilling near a gas-blow-out for oil?

A. No sir. **[1531]**

Q. Are you familiar with the numbers of the townships that comprise the Elk Hills?

A. No; I can't say that I am.

Q. Do you know where the Elk Hills are themselves?

A. I know they are north of the Buena Vista Hills—a range from close to Cole's levee at the north end of the Buena Vista Lake—that range of hills running from the Lake over to McKittrick.

Q. And those are the hills that you were in in 1901, are they?

A. Yes sir.

Q. At the time when you were in there in 1901 you state that you were able to control or would have been able to command twenty or twenty-five thousand dollars? Is that correct?

A. Yes sir.

Q. Was there anything to prevent you from getting other people who were able to command money going in there with you if you had something good?

A. No sir.

Q. What is the usual practice in the way of starting wells in new oil territory, as to the thing being done by one individual or more?

Mr. Mills—Objected to as wholly immaterial.

A. It is done generally by corporations. Very few individuals would care to start on a wild-cat proposition out of their own pocket.

Q. What would you term the work done in the Elk Hills beginning in 1909 to the present time? Is that actually developed producing territory or is it something else? Do you understand what I mean?

A Most of the work done in the Elk Hills—you mean from 1909 and subsequent? **[1532]**

Q. Yes.

A. They brought in what they call in the oil world "dusters." That is, dry holes—outside of the well which Mr. Mills speaks of.

Q. Now, referring to the persistence of oil sands, what has been your observation and experience in the fields as to whether there is a blanket of sand that uniformly underlies a large territory, that you can find everywhere you go? What is the fact as to that? Does that sand continue indefinitely in that way?

A. No; it thickens and thins out. Around the Maricopa district it is irregular.

Q. Is there any certainty, basing your answer on your experience in the oil business, that when you have a well in one quarter-section that is producing oil that a well a mile away from there will produce oil?

Mr. Mills—Objected to as immaterial, the way the question is constructed. It might be up in the mountains, away off of the oil-sands entirely.

A. It depends entirely, Mr. Lewers, on the position of the well and the formation.

Q. By Mr. Lewers—Well, suppose that you have a well a mile away that is, so far as surface indications are concerned, apparently on the same formation. Is there any certainty that that well will produce oil?

A. No sir.

Q. Would there be any certainty that a well seven or eight miles away from any producing well in territory that has not been developed, would produce oil?

A. No sir.

Q. And was it the general belief amongst oil men in the early days in 1901 when you were in there, that if a well was sunk 6 or 7 or 8 or 10 miles away from a producing well, that **[1533]** there would be any probability of finding oil?

A. That was not the feeling; no sir.

RECROSS EXAMINATION
OF
BENJAMIN M. HOWE.

By Mr. Mills:

Q. It is a fact, is it not, Mr. Howe, from what you know of the Elk Hills territory and the development there at the present time, that the Associated Oil Company has made three oil discoveries in three different sections of land instead of one, as you have stated?

A. I understand they have a discovery in two, but not to my knowledge have they three.

Q. You don't know that they have discovered oil in Section 24 of 30-23?

A. They have oil in 22.

Q. Section 22? And where else?

A. And I couldn't state accurately the other section.

Q. Section 22 is altogether a new information to me. I didn't know that they had made a discovery on that section. That makes four discoveries, so far as my information goes.

Mr. Lewers—Are you testifying into this record, Mr. Mills? There has been no question asked Mr. Howe as to the discoveries of that kind. He testifies that he has not been in there recently.

Mr. Mills—I am asking the fact.

Mr. Lewers—No; you are stating the fact.

Q. By Mr. Mills—I will ask you if you know as a matter of fact from your own personal knowledge that the Associated Oil Company has or has not made three oil discoveries on three different sections of land in the Elk Hills.

A. I don't know of my own personal knowledge that they have made three discoveries; no sir. **[1534]**

Q. And you don't want to testify here under oath that they have not, under those conditions, do you?

A. No sir.

Q. Now, that land which you examined in 1901 was near Section 34, Township 30-22, was it not?

A. Near Section 34?

Q. Yes; of Township 30-22?

A. At what time?

Q. In 1901 when you say you went to the Elk Hills to look at this section of land.

Mr. Lewers—I submit that the question is unfair. Mr. Howe testified that he don't remember the township.

A. I don't recall the township or range or section of the land at that time.

Q. By Mr. Mills—What was the name of the property?

A. If I remember correctly, it was on the old map as the Dirigo Oil Company. D-i-r-i-g-o. I won't be positive as to that.

Q. Did I understand you to testify, Mr. Howe, that it was east of the 1901 property?

A. Oh, that was some property down in 1904.

Q. Oh, then I am mistaken about that. I withdraw that. Do you know from your personal knowledge, and is it not a fact, that all of the wells which have been brought in in the Elk Hills, got gas?

A. I don't know that they got petroleum gas.

Q. Do you know that they got any kind of gas?

A. It is very hard to drill a well anywhere that you won't get gas.

Q. Do you know that the gas came in such a quantity on the Redlands Oil Company property that it ignited and burned up the rig? Do you know that?

A. No sir. **[1535]**

Q. Do you know that all of those wells that you designate as dusters struck gas at some point in their drilling?

A. I know that they had gas; yes sir. In some of the wells.

Q. You have answered in response to a question of counsel for the defendant that even if you came

out on the formation from the oil-sand-cropping, and in the direction in which the angle dips, that the drilling of a successful well is not always a certainty. That is correct?

A. Yes.

Q. The successful drilling of any well, any oil-well, is not a certainty?

A. It is not a sure certainty.

Q. There is an element of hazard in drilling a well any place to get oil?

A. Yes sir.

Q. People don't go into the oil business on a dead certainty that they will make money?

A. Well, they have that inspiration that they are going to make money.

Q. They have the hope that they are going to make money?

A. Yes sir.

Q. But it is not at all certain in any oil field that any particular drill will get oil, is it?

A. Yes, it can be demonstrated that in certain locations you will get oil. That has been by lots of development previous to your entry in that particular district.

Q. Then, I understand you to say now, there are conditions, after there has been some development, by which you can go out and place a drill and be dead certain of getting oil?

A. You are morally certain. You can't be absolutely certain.

Q. And that certainty is based upon the surface indications, **[1536]** the dipping of the formation and the previous developments, is it not?

A. Yes; to a large extent.

Q. And it amounts to such a certainty, does it not, that it forms what you would regard, as an oil man, as a good investment proposition?

A. In asking that question do you mean going into a developed district or into an undeveloped district.

Q. I am taking it under the conditions which you have imposed. You say there are conditions where there has been some development and where the sand-croppings are favorable and the angle is favorable that there is a moral certainty that if you use judgment in selecting your spot to sink a drill you will find oil?

A. That is, in a developed district where there has been considerable development done.

Q. From that you would infer that the oil sands have some uniformity and persistence?

A. They have, yes.

Q. Let me ask you this question: Did you see the report made by the geologist, Ralph Arnold, on the well which you speak of in the Vallecitos district in San Benito county? Did you see the report made by Mr. Arnold?

A. I think I have a copy of it.

Q. Did you see the report of Mr. King?

A. I have a copy of Mr. King's report.

Q. Who was Mr. King? Where does he have his office?

A. He was located, I believe, in Fresno for a while. His report was secured by some Fresno people.

Q. Is he still here in this country?

A. I don't know where he is at present.

Q. Do you know what Mr. King's business was while he was [1537] in Fresno?

A. I think he is a mining engineer.

Q. He was not a geologist, was he? He was an engineer?

A. A mining engineer, and claimed to be a geologist and have some knowledge of the oil business.

Q. But his paramount business is engineering, isn't it?

A. That I couldn't say.

Q. Do you want to have it appear upon the record that you have no confidence in Mr. Ralph Arnold whatever as a geologist?

A. No.

Q. He is recognized on the coast?

A. He is recognized as—

Q. Is he a competent and thorough oil geologist?

A. Yes, but he is liable to make mistakes in his deductions. He is not able to see all conditions which possibly make changes in the formations he can see.

Q. Do you know of any practical oil man who is

better qualified than Mr. Arnold is to make deductions to be correct in the matter of oil geology?

A. I don't know that I know any one better than Mr. Arnold or that has any better reputation than Mr. Arnold.

Q. From that one failure which was made in Vallecitos that you have referred to, you would not say that Mr. Arnold was incompetent as a geologist to determine the successful drilling of any well?

A. No, you can't hold one failure against a man.

Q. And you have as much confidence in Mr. Arnold's opinion of oil geology as you have of any practical oil man that you know of?

A. I have as much confidence in Mr. Arnold's opinion as I have in any geologist that I know of.

Q. Either practical or theoretical? **[1538]**

A. Practical. Theories don't always carry out.

REDIRECT EXAMINATION
OF
BENJAMIN M. HOWE.

By Mr. Lewers:

Q. It is a fact, is it not, Mr. Howe, that even the best of them have to guess at it?

A. There is a certain element of guess in it.

[1539]

THEODORE TRACY, a witness called and sworn on behalf of the defendants, testified as follows:

DIRECT EXAMINATION

I am now living at Bakersfield where I am employed in the cigar business. I own a ranch of about

2,000 acres at Button Willow, and was first employed by Cox and Clark and later by Miller & Lux in running cattle on the range.

I am familiar with the Elk Hills and first went into them in 1875 and have been in them a great many times since then running cattle. These hills are used as a range by Miller & Lux, and many other people. I was in the Elk Hills between 1900 and 1905. At that time there was no work going on in those hills.

I was connected with some locations that were made in the Elk Hills by Si Drouillard and others but never spent any money on them.

The actual mining work began in the Elk Hills about three years ago. I never heard the Elk Hills discussed as oil territory from 1900 to 1905 and the first I heard them mentioned as prospective oil territory was about three years ago.

CROSS-EXAMINATION

—of—

THEODORE TRACY

I am now working in a retail cigar stand at Bakersfield, just putting in time. After I had work for others in the cattle business I was engaged in the cattle business myself but sold out about four years ago. Buttonwillow where I was located is about three or four miles north of the Elk Hills.

I have been in the cattle business since 1875. I am not a bit interested in oil development and never was interested in any other business than the cattle

business and the cigar business that I am now in. I never paid any attention to oil development. The only way I would know an oil seep from a horse doctor **[1540]** would be if the seep was good and strong, otherwise I wouldn't know the difference. I never was sufficiently interested in the oil business to even discuss it. I didn't care anything about what went on in the oil business around me, paid no attention to it and I don't know anything about geological oil formations.

JOHN J. McCLIMANS, a witness called and sworn on behalf of the defendants, testified as follows:

DIRECT EXAMINATION.

I am now living at Fellows in the West Side field. I am superintendent of the Olig Crude Oil Company and have been connected with that company since December, 1900. Prior to that time I lived in Penando County, Pennsylvania, and was engaged in the oil business there. I have been in the oil business ever since I was big enough to work—since about 1884.

I came to California in 1900 and went to McKittrick and was employed on Sec. 13 about two and one-half miles northwest of the town of McKittrick, by the Pacific Crude Oil Company. I worked for that company until 1904 when it was reorganized into the Olig Crude Oil Company. I still have charge of that property and also of property in the Midway, where they moved about two years ago. During this

time I have had practical experience in development of oil properties, but only for the Olig Crude Oil Company. I went into the Elk Hills in 1901 and was there last year and also three years ago. In 1901 I crossed along on the edge of the hills in going from McKittrick to Maricopa.

From 1900 to 1905, the oil development was along the Temblor Range. The only place where there was any oil at that time between McKittrick and the Sunset was in the Midway on Sec. 8, 32-23. Between that and McKittrick there was no development at all. While at McKittrick the development was south and west of the town. **[1541]**

The impression at that time amongst oil men was that the oil was very narrow and I know that they were afraid to go out one side or the other for fear they would get off the belt, and they hugged the Temblor Range pretty close. This continued to be the idea, to my knowledge, up to 1908. At that time they thought oil might be everywhere and began to take up land all over that country. They thought everything was oil land.

From 1900 up to as late as 1908, I never heard the land in the Elk Hills discussed as oil territory by people in that vicinity. Nobody ever bothered the Elk Hills, to my knowledge.

I have been in the Elk Hills twice since 1908. I visited the Associated Oil Company's property on Section 26, 30-23 a little over a year ago, at which time they were drilling but no discovery had been

made to my knowledge. I heard that there had been a discovery and visited the rigs but saw none.

CROSS-EXAMINATION
of
JOHN J. McCLIMANS

By Mr. Mills:

Q. You are what they term an oil man, aren't you?

A. Yes sir.

Q. By that you refer to an oil producer, or a man dealing in oil lands?

A. No.

Q. What do you refer to?

A. I was superintendent and operating drilling for a company.

Q. You don't mean an oil prospector or oil geologist whose particular work is the examination of lands in order to determine whether they are oil lands or not?

A. No; I am not a geologist.

Q. Your business is really and exclusively operating for the [1542] purpose of production?

A. Yes sir.

Q. After the well has been placed by somebody else?

A. After the location has been placed.

Q. In other words, you take up your work after the prospecting has been fully completed?

A. Yes sir.

Q. You yourself have never prospected any lands?

A. Not myself.

Q. And you have not located any lands?

A. No sir.

Q. In other words, you are not interested in that phase of the oil business?

A. No.

Q. You are particularly interested in the actual operation after that work has all been done by somebody else?

A. Yes sir.

Q. Then your experience and the work you would do in the operation of your particular phase of the oil business would be confined to the actual production after all the preliminary work of prospecting and locating had been accomplished?

A. I don't know what you mean by prospecting. After the location has been made. I have prospected in the same way for the Olig Crude Company. It was practically a wild-cat country.

Q. Did you do any locating there on that prospecting?

A. No sir.

Q. Your work, as I understand it, then, is taken up in the actual operation of the well and production of oil?

A. Yes sir.

Q. And that you gave your principal attention to, isn't that so?

A. Yes sir. **[1543]**

Q. You say that in 1901, you visited the Elk Hills on a trip from McKittrick to Maricopa. Was that merely incidental to the trip that you took, or did you have business in the Elk Hills?

A. I had a friend in Maricopa and I went that way.

Q. What townships and ranges are the Elk Hills located in?

A. You have got me. I didn't pay that much attention to it. I know where they are, but I don't know the townships.

Q. Generally, in what direction from McKittrick is Maricopa?

A. Maricopa from McKittrick is southeast.

Q. And what township is McKittrick in?

A. I would have to look at a map to find that out.

Q. Is it in 30-22, if I would suggest the name to you?

A. I couldn't say that positively.

Q. I will tell you that it is in 30-22. Township 30 South, 22 East. Where in relation to the town of McKittrick are the Elk Hills? In what direction?

A. Well, they lie almost east.

Q. About how many miles to the nearest hill?

A. The nearest hill is about three or four miles, I think. Three miles from McKittrick.

Q. And in coming down to visit this friend of yours, you crossed the Elk Hills?

A. No; I didn't cross the Elk Hills. I went

through the valley on the edge of the Elk Hills,—between the Elk Hills and Buena Vista Hills.

Q. To Maricopa?

A. Yes sir.

Q. Did you select the usual traveled route in going there?

A. Yes sir.

Q. That is to say, you went down the flat or valley between the Elk Hills and Buena Vista Hills in your way to Maricopa?

A. That is it. **[1544]**

Q. And in doing that, you selected the usually traveled route?

A. Well, there is two roads; One that went direct through the Midway flat, and the road that went down by the lake.

Q. In following out the road which you took at that time, as a matter of fact, if you had kept on, you would finally drive right into the Buena Vista Lake, wouldn't you?

A. Yes sir.

Q. And be some twelve or fifteen miles from Maricopa out of your way?

A. Not that far.

Q. Not twelve miles out of your way in Maricopa?

A. No. I think there was probably five or six miles difference.

Q. Did you go as far as Buena Vista Lake in your drives?

A. Yes sir.

Q. Did you go around the eastern side of the Buena Vista Hills?

A. Yes sir.

Q. On the lake side of the Buena Vista Hills? Is that correct?

A. Yes sir.

Q. What was the valley called between the Buena Vista Hills and the Elk Hills at that time?

A. I don't know whether it had any name or not.

Q. Did you ever hear it called the Elkhorn Valley?

A. I have since that.

Q. I understand you started from McKittrick and went down the valley between the Buena Vista Hills and the Elk Hills till you come to the Buena Vista Lake?

A. Yes.

Q. And then skirted on the eastern side of the Buena Vista [1545] Hills down to Maricopa?

A. Yes sir.

Q. In doing that, you went some twenty-four miles out of your way, did you not?

A. Not to my knowledge; no.

Q. How long did it take you to make that trip?

A. I think about five hours.

Q. From McKittrick to Maricopa, via Buena Vista Lake, around the eastern side of the Buena Vista Hills?

A. Yes sir.

Q. What time did you start in the morning?

A. I started in the afternoon.

Q. What time?

A. Two o'clock.

Q. What time did you arrive at Maricopa?

A. At seven o'clock.

Q. Now, Mr. McClimans, did you keep on the road all the way?

A. I can't tell you as to that. There wasn't much road to it.

Q. Did you keep on following up what you supposed to be the road?

A. Yes; I went that way because the road through the Midway country was cut up so bad and dusty by team work.

Q. That was in 1901?

A. 1901.

Q. And you never visited the Elk Hills again un- 1908 or '09?

A. 1910.

Q. And then you were in there for how long a time?

A. Just made a trip over there in a machine.

Q. From where to where?

A. From Fellows over onto 26.

Q. Onto 26, 30-23, where the Associated well is?

[1546]

A. Yes sir.

Q. From Fellows to where?

A. From Fellows over onto Section 26 in the Elk Hills.

Q. And back to Fellows again?

A. Yes sir.

Q. How long a time did you spend in the Elk Hills?

A. I was there three or four hours, I guess. I visited several rigs.

Q. Did you ever make any visit to the Elk Hills besides that?

A. One after that in 1911. Practically the same thing.

Q. Where did you leave from then?

A. The same place.

Q. Fellows?

A. Yes sir.

Q. Went up in a machine?

A. Yes sir.

Q. And spent about the same length of time?

A. Yes sir; just about the way I did before. I went with the same men.

Q. And back to Fellows?

A. Yes sir.

Q. Whom did you go with?

A. Bert Dunn of the Associated Supply.

Q. How do you spell his name?

A. Dunn.

Q. On this trip in 1901, where you took the road down the valley between the Buena Vista and Elk Hills and around the eastern side of the Buena Vista

Hills to Maricopa, and from there to McKittrick, how many miles did you traverse in those five hours?

A. I couldn't tell you that.

Q. You kept pretty busy going? **[1547]**

A. Yes sir.

Q. You didn't stop anywhere?

A. Not to speak of at all. I stopped at the upper end of the lake.

Q. You didn't stop off, peradventure, to go up and make a trip into the Elk Hills?

A. No sir.

Q. You kept right along busy on that road?

A. Yes sir.

Q. So your visit was really by proxy into the Elk Hills in 1901

A. Yes sir.

Q. In other words, your visit was made by the roadside down in the valley?

A. Yes sir.

Q. And you obtained no specific detailed geological knowledge of the formation of the Elk Hills in the time that you made that trip around through the valley?

A. No sir.

Q. And you never have made any detailed specific examination of those lands to ascertain their geological formation or their possibilities, have you?

A. Well, I have looked at the formation, but not in those trips.

Q. Those are the only trips that you say you made. What other trips did you make?

A. I never did make any other trip.

Q. Then your knowledge is obtained by those three trips—your personal knowledge?

A. What of?

Q. Of those hills.

A. I didn't have any knowledge of them. I don't think there **[1548]** was anything there, but I didn't bother about them.

Q. I don't care about your volunteering any more. Respond to my question.

Mr. Lewers—Your answer is responsive. If you treat the witness respectfully, he will treat you respectfully.

Mr. Mills—He is treating me very respectfully. I think very kindly of Mr. McClimans, notwithstanding your vociferous objections. You never made any reconnaisance of those hills?

A. No sir.

Q. And you don't feel yourself competent as a geologist to pass an opinion as a geologist upon the formation of those hills, from what you know of them?

A. Not from the surface formations, no sir.

Q. Your personal information obtained at first hand, both of the surface indications and of the structural formation of those hills, was obtained at a time when you were not making any special study whatever of the hills?

A. No sir.

Q. On two trips that you took in an automobile going up on Sections 26 and 30, where the Associated wells are in 11?

A. No; when I went on the hill, I went there for the purpose of seeing oil in the wells that were on the hill.

Q. But you did not make any study of the geological conditions in the hills?

A. No sir.

Q. In other words, you did not trace out the anticline?

A. No sir.

Q. You did not examine the hill for the purpose of examining and determining whether there were any sand-croppings—

Mr. Lewers: Objected to as not cross-examination. I wasn't asking about geological conditions or anything else in that respect, and counsel is merely consuming unnecessary time in his [1549] cross-examination.

Q. By Mr. Mills—gas blow-outs or other physical evidences of the presence of petroleum, did you, Mr. McClimans?

A. No sir.

Q. You just made a random visit in there to those wells?

A. Yes sir.

Q. Such as you would make to any wells?

A. Yes sir.

Q. Now, basing your answer on what you know of the Elk Hills from your personal observation on those two trips and your long-distance observations made from the road in the valley, you are not able now to pass any opinion whatever upon either the geological formation of the hills or their possibilities for oil, are you?

A. As far as that is concerned, I don't think there is any possible chance of getting any oil in the Elk Hills, to my knowledge.

Q. Do you base that on the two trips that you made?

A. The last two trips. The first trip, I knew nothing about it. I wasn't looking for oil at that time and, in fact, I don't think that anybody figured on there being any oil in the Elk Hills at that time.

Q. But on your last two trips, you base your statement?

A. Yes sir.

Q. And at that time you made no study whatever of the conditions, you say, of the geological formation, or had any knowledge whatever, obtained by you on those trips, of the sand croppings, of the anticlinal structure, and nothing whatever but a visit to these holes, and you are willing now to go on record under oath on a statement of that kind with that limited information? Is that correct?

A. I don't exactly know what you mean. I never took any **[1550]** geological information, anyway. I never took that up. I never went on any-

thing like that. I always went from what I found coming out of the well in the formation in the ground that we take out in drilling operations, and I didn't see anything at that time in the wells that I visited that looked anything like oil.

Q. Are you connected with the Associated Oil Company?

A. No sir.

Q. Or the Southern Pacific?

A. No sir.

Q. Or the Southern Pacific Railroad Company?

A. No sir.

Q. Or remotely or directly with any of the defendants in this case?

A. No sir.

Q. Did the Associated Oil Company at that time you visited the well throw open their log to you?

A. No sir.

Q. Did they furnish you extra facilities for examining their wells?

A. No sir.

Q. You were just a visitor as any casual person or observer would be, coming in an automobile?

A. Yes sir.

Q. Did you have any extraordinary facilities by which you could form a correct judgment, not having seen the log of the well, and having no facilities afforded you other than the right to go on their property, from which you could form an opinion?

A. All the way I could form an opinion would

be from the location of the conditions around the well, and if they were working on the well, to see what was coming out of the well.

Q. They were not working on the well at that time, were they?

A. Yes sir. **[1551]**

Q. Which well were they working on?

A. I couldn't tell you exactly; it was on 26.

Q. Were they working on the well in Section 30 in 30-24?

A. Yes, but they were not down when I was there. They were not deep enough to get oil if there was any.

Q. So, if they discovered oil, it was after your last visit there?

A. Yes sir.

Q. Do you know as a matter of fact that since your last visit the Associated Oil Company have discovered a well which will produce on a gauge 406 barrels of oil a day?

A. For how long?

Q. Do you know that to be a fact?

Mr. Lewers: I object to this question because it is constantly asked, and counsel knows it is not a fair question. It assumes that it is a regular steady production, and there is no testimony to that effect.

A. I do not.

Q. By Mr. Mills: Assuming it to be a fact, Mr. McClimans, that they have discovered a well which runs 406 barrels of petroleum a day on the pump,

and which will probably increase in its amount when it is kept on the pump, but which has been temporarily stopped by the company operating the well, would you regard that well as a good indication of oil territory in the Elk Hills?

Mr. Lewers: To which I object on the ground that it is a hypothetical question not based on the evidence in the record and contrary to the evidence in the record, and indefinite, because it does not furnish any data as to the length of the production.

A. I do not believe it to be a fact.

Q. By Mr. Mills: I say we will assume it to be a fact. You needn't volunteer something that is not the question. I say we will assume it to be a fact. [1552]

Mr. Lewers: You are volunteering something that is not in the evidence. He has a right, in the light of his knowledge not to take your assumption.

Mr. Mills: Well, the gentleman is willing to take an assumption.

A. Any oil property that will produce 400 barrels a day is profitable.

Q. That is, in the McKittrick-Midway field?

A. Yes sir.

Q. And assuming it to be a fact, which you say you don't know, and basing it only on the assumption that the well will produce 406 barrels a day, and possibly increase its output, would you regard that as an indication of a splendid oil territory?

A. Not a splendid oil territory for that depth.

Q. I didn't say anything about depth. Did I say anything about depth?

Mr. Lewers: I object to that question because counsel must not assume that the witness is entirely ignorant with the situation that he has observed. If you are going to make a statement of a hypothetical question, put in all your facts. It might be one foot deep, for all you know, or for all you say.

Q. By Mr. Mills: Are you willing to concede as a practical oil producer that a well in the McKittrick-Midway field, regardless of its locality, so long as it is in that field, which will produce continuously for an indefinite period of time, upwards, of a year, we will say, 406 barrels of oil a day, and probably increase that amount gradually, is a good oil proposition, and that the land on which that land is placed and the contiguous land is good oil territory? And, say, the gravity is 28.

A. Yes; that would be good territory.

Q. Would you regard that as good as any territory where they have not developed what you call a gusher or something extra-[1553] -ordinary in the McKittrick-Midway field?

A. I couldn't catch you.

Q. Would you regard it as good oil territory as the average successful territory in the Midway-McKittrick field?

A. Yes sir.

Q. Now, assume it to be a fact that on Section 24 and on Section 26, in 30-23, they have discovered oil,

and that on Section 30 which corners on 26 in 30-24, they have produced a well which has been designated by some authorities as the best well in the McKittrick-Midway field, running at least 406 barrels a day. Would you say that that was sufficient, if it would run for a year at that rate, to prove that to be excellent oil territory?

A. I don't know anything about it. I never heard of it.

Q. I am assuming the fact. Would you regard it to be oil territory?

A. I said that before. That I regarded a 400-barrel well, if it would last or pump or produce 400 barrels a day for a year,—it would be a paying proposition. It would be oil territory. Good oil territory.

Q. You say you are in touch with conditions in the oil business in the West Side field from 1901 to 1904?

A. Yes sir; with the exception of one year.

Q. What year do you except from that?

A. That was from December, 1901, till—It was a year and a half. From December, 1901, till May, 1903.

Q. December 1st, 1904, you were over there—or substantially at that date,—on the West Side field?

A. Yes sir.

Q. About how many wells, as near as you can recollect, were in Township 30 South, 21 West, at that date—wells which had struck oil?

A. I couldn't tell you how many wells there were.

[1554]

Q. How many wells which had struck oil were there, on December 1st, 1904, in Township 30 South, Range 22 East?

A. In the McKittrick field?

Q. Yes.

A. I never counted the wells. I don't know how many there were. There were several of them.

Q. On the same date, in Township 32 South, 23 East, how many wells would you say as one having been in touch with the conditions there on December 1st, 1904, which had struck oil and were producing?

A. I couldn't tell you anything about the sections. I didn't keep no track of them.

Q. I am speaking of townships.

A. That takes in the McKittrick field?

Q. 32-23 takes in the McKittrick field?

A. I don't know where it takes it. I don't know anything about it.

Q. You are not familiar with the township numbers and names?

A. Not unless I get a map and look them over.

Q. Yet you have been in that field some time?

A. Yes sir.

Q. And have not acquainted yourself with the townships, ranges, and numbers?

A. Only in certain places—certain sections; those that I a minterested in.

Q. How many wells were there on December 1st, 1904, in Township 30 South, 24 East?

A. I don't know.

Q. How many wells were there on December 1st, 1904, in Township 12 North, 24 West, San Bernardino Meridian?

A. I don't know.

Q. How many wells, do you know, in successful operation on [1555] December 1st, 1904, in Township 11 North, Range 24 West, San Bernardino Meridian?

A. I don't know.

Q. In Township 11 North, Range 23 West, San Bernardino Meridian?

A. I don't know.

Q. How many wells altogether were there which had struck oil anywhere in the McKittrick-Midway-Sunset field on December 1st, 1904, or prior to that time?

A. I couldn't tell you how many.

Q. Don't you know as a matter of fact there were upwards of 300 successful wells in 1904, in December, from McKittrick to Sunset?

A. No sir.

Q. Do you swear that they were not?

A. No.

Q. You simply don't know it to be a fact?

A. I do not.

Q. As a matter of fact, Mr. McClimans, your recollection at this time is not very definite, is it, as to

just what the conditions were there year by year in those fields? In other words, you cannot segregate what difference there was in such a year as distinguished from the year following, can you, during the course of the twelve or fifteen years?

A. From 1904 up to 1908 there was very little work done.

Q. I mean taking it from 1900 till 1904.

A. There was very little work done from 1902 up till 1908 or '09.

Q. (The question is read by the reporter.) Can you give me a more specific response to that question?

Mr. Lewers: I submit that the answer is responsive.

Q. By Mr. Mills: Can you now, Mr. McClimans, after the pass- **[1556]** age of the number of years, recall back distinctly enough to remember definitely what progress was made between the year 1904 and 1905 in that entire field?

A. Nothing at all, I don't think.

Q. Can you remember sufficiently to say that there were no wells put in during that time?

A. Well, there probably was between Sunset and McKittrick one or two or three.

Q. Taking the entire field from McKittrick to Sunset? My purpose is not to mix you up, but to test your recollection to see whether you can now after a passage of these years distinctly remember

year by year the number of wells that were put in each year in that entire field.

A. No; I could not.

Q. As distinguished from any other year?

A. No.

Q. It would be hopeless for you to attempt to do that?

A. Yes.

Q. Do you know of anybody else in the oil business that could do that?

A. I do not.

Q. The best record of the development there is the public records that are left of the wells that are brought in?

A. Yes.

Mr. Lewers: And where is that?

Mr. Mills: That is in certain maps that were produced year by year showing the state of development.

Mr. Lewers: Public?

Q. By Mr. Mills: Yes, public. Sufficiently so that the oil men kept in touch with those matters. That is true, isn't it, Mr. McClimans?

A. I don't know anything about that. **[1557]**

Q. You don't know as a matter of fact definitely just the number of wells there were in any one year on the front of that range from McKittrick to Sunset?

A. I do not.

JOHN LANG, a witness called and sworn on behalf of the defendants, testified as follows:

DIRECT EXAMINATION

I live at McKittrick, Kern County, California, and at the present time deal in oil lands. I have been connected with the actual production of oil, however, since 1900. Part of my experience was in the Kern River field and part in the McKittrick and Santa Maria fields. I ceased my connection with active field work in the oil business in February of this year. At that time I was superintendent of the Hill Crest Oil Company.

I went into the Elk Hills for the purpose of drilling a well for the Hill Crest Oil Company on Sec. 28, T. 30-23, in February, 1910, and we started the actual drilling on October 24th of that year. We drilled to a depth of 1670 feet. We found some gas at 720 feet but we did not find any oil in this well. We quit drilling on this well on April 4, 1911, and nothing has been done since.

I was also connected with the drilling of the well by the Scottish Oil Company on Sec. 20 of the same township in the Elk Hills. This well was started in November, 1910. We drilled to a depth of 4005 feet. At a depth of 1300 feet we got a blow-out of gas and at 2620 feet struck brackish water that flowed over the top of the well. We got no oil in this well but at a depth of 3500 feet there was apparently a color of oil on the water, although I am not positive of this depth. The well was then abandoned, the casing was

cut off, and pulled out. Some of it was sold and some of it is still on the ground.

The Hill Crest well I have been speaking of on Sec. 28 of T. **[1558]** 30-23 cost about $38,000 or $40,000, while the Scottish Oil Company's well on Sec. 20 of the same township cost about $60,000.

The Redlands Oil Company about the same time drilled a well on Sec. 30, 30-23, 2850 feet deep. I had charge of the drilling of this well for two weeks of the time when they first put in the rotary drill. They found some gas at 520 feet in this well and at 1050 feet they got a color of oil. We thought at that time it might be a 25 barrel well but after it was bailed out it did not show up any oil at all. What we supposed was a color of oil must have been asphaltum and dry sand. We could not account for it in any other way. The well was tested to their satisfaction and showed that there was no oil there at that time. This well cost somewhere about $45,000 or $50,000.

I know of a well that was drilled by the Midway Pacific Oil Company on Sec. 32, 30-23 about that time to a depth of 2425 feet. I was acquainted with the superintendent of this well and we exchanged confidences and I visited the well sometimes. They had at one time what they thought was a small showing of oil but they afterwards concluded that it came from a new wire line they were using for drilling. I don't know whether it came from the formation of this line. We spent about $45,000 on this well.

The Redlands well on Sec. 30 of this township has

been abandoned and the casing has been pulled. The Midway Pacific Oil well on Sec. 32 of the same township is standing just as they left it, except that they have moved some of the houses away.

I do not think that the Hill Crest well was started by my company as a result of any expert opinion, although my associates might have obtained such opinions without my knowledge. We did read the Arnold and Johnson Bulletin No. 406 and it made us think more of the Elk Hills than if we had not read it, but we had located before I saw the bulletin.

I was not connected with any other development in the Elk Hills **[1559]** but I saw the Associated Oil Company operating on Section 22, 24 and 26 in T. 30-23 and on Section 30, 30-24. I was there from time to time and saw them drilling. I saw oil produced in Secs. 26 and 30, I think, in the latter part of 1911. I have not been in the Elk Hills but once or twice since I left there in February, 1912.

CROSS-EXAMINATION OF JOHN LANG

The fact that the Government of the United States has withdrawn from entry the land in the Elk Hills has to some extent had something to do with our not doing anything further with out locations as it makes it doubtful whether or not we can get title to the land. The withdrawal, I think, has also had a tendency to discourage capital and has discouraged locators because of their inability to get capital interested. To my knowledge oil has been

discovered in the Elk Hills in Section 26, Township 30-23, and in Section 30, Township 30-24. Gas has been discovered in the Elk Hills in sections 32, 30, 20, 28 and 26, all in 30-23, and 30 in 30-24. Gas was discovered in the Redlands well on section 30, 30-23. At 1300 feet quite a bit of gas was discovered in this well and their rig burned down. They claimed that the gas was the cause of the rig burning down as there was a sufficient quantity to ignite and set fire to the rig and it burned down. The only wells in the Elk Hills that were drilled entirely with Standard tools were the Hill Crest and the Midway Pacific wells. The Scottish Oil Field Limited was drilled 1800 feet by standard tools. This was in section 20, township 30 south, Range 23 East. From 1800 feet down to 4055 feet they drilled with a rotary. The Redlands well from 1600 feet on drilled with a rotary. The Associated drilled some of their wells in part with the standard and finished with rotaries. The Associated well on section 26, Township 30 South, Range 23 East was started and completed with a [1560] rotary. In their well on Section 26, Township 30 South, Range 23 East, the Associated perforated their casings at about thirty one or thirty two hundred feet and they continued on down to 4035 feet and put in perforated pipe there.

Q. Have you any opinion as to whether that well would have made a better showing if it had been perforated at a higher point in the well?

A. From what I was told and from indications

that I saw when I passed around there, I thought there might have been oil at 2600.

Q. And from your understanding they did not perforate the casing at 2600?

A. No; I didn't hear of it, if they did.

Q. Now, this well which you referred to on Section 24 of 30-23, was that an Associated Oil Company's well?

A. Yes sir.

Q. What do you understand that well made?

Mr. Lewers: I object to that. You are calling for hearsay testimony that you are declaiming so loudly against.

Mr. Mills: This is your witness and I am asking some questions to find out what he knows. He gave hearsay testimony on direct testimony that I didn't object to.

Q. Did you hear of that well making 500 barrels a day?

A. I heard it did; yes.

Q. On Section 24?

A. Yes sir; that is, it started in with that.

Q. Now, that well on Section 30 of 30-24, how many barrels of oil a day did that make?

A. I couldn't tell you. I had no way of telling how much it made.

Q. Did you ever hear? You were around that country. Did you ever hear what that well made?

[1561]

Mr. Lewers: Objected to. I object to this hearsay testimony as not cross-examination.

A. I believe I have heard what it makes.

Q. By Mr. Mills: How much?

A. I have heard various stories about it. Some of them told me it made a hundred or more and others a good deal more than that. I never got nothing definite about it.

Q. By "a good deal more" how much do you mean?

A. Well, two or three hundred barrels a day.

Q. Do you know whether the Associated Oil Company ever shipped any oil through a by-pass from that well into the main pipe-line?

A. I do not.

Q. You don't know anything about that?

A. No sir.

Q. How many feet of oil-sand, to your knowledge, did the well on Section 24 of 30-23 pass through?

A. I don't know a thing about it.

Q. Did you ever hear how many feet of oil-sand?

A. No.

Q. Did you ever hear how many feet of oil-sand they passed through on Section 30 of 30-24?

A. About eleven feet, they told me.

Q: Is that the well in which you stated you had heard they had gotten several hundred barrels of oil a day?

A. Yes; I heard some different stories.

Q. Do you mean eleven feet?

A. Yes; eleven feet of sand.

Q. At what point?

A. At about 2700.

Q. From 2700 to what point?

A. It was about 2700. It might have been a little below or a little above, where they got the sand.

[1562]

Q. Did they perforate the casing at 2700 feet?

A. They perforated down there about where the oil came from.

Q. About 2700 feet, do you think?

A. Yes.

Q. And you heard that they got several hundred barrels a day?

A. Some of them claimed that it wasn't doing over a hundred, and others claimed that it was doing something like two or three hundred barrels. I didn't get anything definite on what was producing.

Q. Do you know a man named James McCay?

A. Only by hearsay.

Q. Do you know from what you know of him that he is employed by the Associated Oil Company?

A. No sir; I do not. I don't know whom he is employed by. To the best of my recollection he was a director. I believe I did hear him say something about working there, coming to think about it.

Q. Do you know anything about the Newman & Morris well?

A. Yes sir.

Q. Where is that located?

A. Section 26, 30-22.

Q. How far is that from the Elk Hills?

A. About a mile or a little over.

Q. Was that well to your knowledge tested out satisfactorily?

A. Well, no. I don't think it would be fairly tested unless you went down as much as 3500 feet. I think from what I have heard it was about 2900 feet.

Q. Have the Hill Crest people an opinion, so far as you know, at the present time, that they can get oil if they continue their operations there?

A. I don't know just exactly how you mean.

Q. Are they embarrassed from any other consideration? That [1563] is, were they embarrased by the lack of capital?

A. Well, they are probably not getting the capital put up to go ahead with the work.

Q. They have strong hopes of making an oil property of that?

A. Well, they have some hopes. I couldn't say that they have strong hopes.

Q. And they have not given up the property at all? They still keep a watchman there?

A. Yes; they still keep a watchman there.

Q. Now, from your knowledge of oil drilling, you may state whether or not it is possible—I don't say probable—but is it possible for any company drilling in the Elk Hills to conceal the actual production

of their wells so that it would be difficult to ascertain just what the well is producing?

A. If they had a motive to conceal it, they might.

Q. How could that production be concealed?

A. By not pumping a well, and various other ways, I suppose.

Q. Suppose, for example, the oil runs in the well at, say 2700 feet, and they put the pump at a few feet below the surface at the point where the oil rises in the well. Would that have a tendency to conceal the actual production of the well?

A. Certainly; it would reduce the production. If it filled in it would fill in slower than if you exhausted the head of the fluid.

Q. The higher up toward the surface of the oil in the well you place the pump the lower the production would probably be?

A. Yes; of course there would be a limit in that. But if you place it a little ways below the top of the oil, naturally you wouldn't get as much production because you would exhaust it through your pump.

Q. And the well would produce much more slowly than if you sunk the pump lower in the fluid? **[1564]**

A. Yes.

Q. Suppose you put the pump at a point above the level of the oil. You would get no oil at all, even though the well was a producer?

A. Yes sir.

Mr. Lewers: I object to this as purely frivolous

speculation, and not cross-examination. If you have got anything of that kind, go after it by those that know this particular well. It is not fair to ask this witness about what he doesn't know about.

Mr. Mills: What well are you referring to?

Mr. Lewers: I suppose you have been all along referring to those wells of the Associated.

Mr. Mills: Don't let the shoe pinch you. I hadn't said "Associated well" to the witness. I don't know what you have on the subject.

Mr. Lewers: I have a lot more knowledge than you have, and I know there was nothing of that kind done there.

Q. By Mr. Mills: If one had a motive to conceal the actual production of a well and would proceed about it in the manner which I have described, would it be possible for an expert visiting that well to discover that fact without himself sinking a pump down to a point where the oil rises in the well?

A. No; it would not be possible to discover the depth of the tubing in the well, unless they saw it pulled.

Q. It could be effectually concealed, then, could it not?

A. Yes sir.

Q. In the Hill Crest well which you say is in Section 28, 30-23, that went to 1670 feet?

A. Yes sir.

Q. Has that well to your knowledge ever been thoroughly tested?

A. Only down as far as it went. [1565]

Q. That is, to the depth of 1670 feet?

A. Yes sir.

Q. Do you think they went deep enough to thoroughly test that well?

A. To test the well or the territory?

Q. The territory.

A. No, they did not, to my satisfaction.

Q. Now, take the Redlands well on Section 30, 30-23. Has that well, which you say went down to 2850 feet, been thoroughly tested?

A. No; there is a possibility of getting oil below there and be paying, anywhere from 3500 to 4000 feet.

Q. So, the fact that they went 2850 feet does not prove anything definitely about that being oil territory?

A. No; I wouldn't think so.

Q. Has the Midway Pacific, which I think you said was on Section 32, 30-23, ever been thoroughly tested?

A. No; not any more than the others have.

Q. That well, you said, went down 2425 feet about?

A. Yes sir.

Q. If that well was sunk deeper it would more thoroughly test that territory, would it not?

A. Yes sir.

Q. Is it your belief that if they go deeper they would have a prospect of striking oil?

A. They would have a chance.

Q. They quit too soon in those wells to thoroughly test it?

A. Yes sir.

Q. How long do you think it would take to test a well after they struck oil? How many days or weeks should they have a well on the gauge?

A. Wells vary so that it would be pretty hard to answer that offhand. A well ought to be pumped at least a month, I think; a [**1566**] month or six weeks.

Q. And if they pumped a month it would be a pretty fair test?

A. Yes; to find out if the well is producing oil or if it is in a right proper condition.

Q. Now, by the use of a rotary rig, Mr. Lang, I understand from the testimony that has been introduced here that they pump in a certain amount of mud or cement into—

A. Pumped in mud.

Q. And force it up around the casing?

A. Force it up around the outside of the drill-pipe.

Q. It has a tendency to hold the walls of earth away from the drill-pipe?

A. It has a tendency to keep it from caving in.

Q. And it also has a tendency, has it not, to mask the formation so as to conceal the oil-sand as you pass through it?

A. Well, they claim that they have, but I don't know positive that it has.

Q. That is to say, a rotary drill passing down through an oil-sand, by the pressure of this mud up against the walls may possibly conceal the fact that the rig has passed through an oil-sand?

A. There is a slight possibility; yes. But it would show a color on the surface—the water would show a color of the oil.

Q. In all cases does it show a color?

A. Yes, it couldn't hardly avoid it.

Q. Did it not, in all these wells in which the rotary rigs were used, show a color of oil, so far as you know?

A. So far as I know, except on the Redlands. I never heard them say that they got a color.

Q. The fact is, is it not, Mr. Lang, that the use of a rotary rig in drilling has more of a tendency to conceal the true formation through which you pass than the use of standard tools? [1567]

A. It certainly has.

Q. It is possible, is it not, that by the use of rotary rigs which were used, as you say, on a great many wells in the Elk Hills, for the operators to pass through oil-sands and not know it?

A. It is a possibility, yes; if they were not very thick. And what makes the possibility greater is drilling in the night and no one there but the drillers. Lots of times they don't notice it. They know when they go through something hard or soft. They can tell whether it is sand by the way the drill drops.

Q. And they do drill day and night?

A. Yes sir.

Q. From what you know of the Elk Hills, do you regard it as a prospective and possible oil territory?

A. Part of it; yes. Possible.

Q. And you know of certain discoveries both of oil and gas in different places in the Elk Hills?

A. Yes sir.

Q. Have those hills and value whatever for agricultural purposes, to your knowledge?

A. I wouldn't want to cultivate them.

Q. Why not?

A. I wouldn't consider them paying unless I had water on them.

Q. Why wouldn't they be paying?

A. They are pretty rough to cultivate. Part of them might be cultivated, as far as level is concerned, but with the rainfall it would not pay, unless a man could get water up there. I don't see any way to pay to cultivate.

Q. And considering the Elk Hills as a possible asset, have they, in your opinion, basing your answer on your experience in those hills and from your general observation and knowledge of agricultural conditions in that vicinity,—have those hills any [1568] value for any
possibility of minerals they

A. Not outside of grazing.

Q. What value have they for grazing?

A. I couldn't state definitely. But in good years they have quite a bit of grass.

Q. For what length of time?

R. That is a hard question to answer direct, because there might be quite a bit of stock in there and eat it off pretty fast. Certainly, during the rainy season.

Q. How long does the rainy season last?

A. That differs.

Q. Isn't it a fact, Mr. Lang, that the grazing in the best years does not last over two or three months in the Elk Hills?

A. Do you mean that the grass was green or good?

Q. Yes.

A. It was more than that. About four months, I should judge.

Q. And the rest of the season it was dry?

A. Yes sir.

Q. And absolutely valueless except for the minerals that the hills contain?

A. Yes sir.

Q. The only real value that those hills have as a possible investment is for petroleum or other minerals that they contain?

A. Yes sir, or grazing.

Q. You would not give much for them as a grazing proposition?

A. Personally I would not.

REDIRECT EXAMINATION OF JOHN LANG

By Mr. Lewers:

Q. Did I understand you to say that part of the Elk Hills you would regard as an oil possibility? [1569]

A. Yes.

Q. Would you put it any stronger than that?

A. No; I don't know that I could. I am only basing it on hearsay.

Q. And you put it merely as a possibility as to part of the hills?

A. Yes sir.

Q. What part of the hills?

A. The eastern end.

Q. Now, was it in the Scottish well, in Section 20, that they struck water?

A. Yes sir.

Q. And how much water did they strike?

A. Well, it flowed a little bit over the casing.

Q. Now, what did that indicate to you?

A. That water?

Q. Yes.

A. Well, I didn't have much hopes after we struck that water that we could get oil in there.

Q. And would you regard the territory where the Scottish is as oil territory?

A. No; not after that well was put down as deep as it was. There was a possibility, but I don't think it was—

I did not regard that territory where the Scottish well was as oil territory after the well went so deep but there was a possibility but I think it was remote. Now, as to the well on section 28 that went down 1670 feet, there was nothing discovered that indicated there was actually oil below that but I would like to have seen that well go deeper on account of the formation. Comparing that formation with other wells I would say the same thing of the Redlands well on section 30. I don't think anyone can

tell that there is oil below the surface except by drilling a hole. [1570]

I have studied the Elk Hills with a view to discovering where the anticlinal fold is. I don't know much about an anticline as I am not posted on geology or geological work as I stated, but I would consider the anti-cline in the Elk Hills as running nearly East and West, a little tendency to the Southeast. The anti-cline in my opinion is not very definite, that is so far as I know what an anticline means. I think it runs from the Northwest to the Southeast in a general direction. Theere are croppings of it which show from the Railroad crossing where the railroad goes down through the gap in section 14, a little East of McKittrick. I noticed the anticline fold there. I have been through the Northwest quarter of section 32, Township 30 South, Range 24 East but I never saw that blow-out or oil cropping there. In fact, I never looked it up, never looked for it when I was going through there. The Elk Hills, from the practical standpoint, show an uplift from the valley, a gentle uplift similar to the Buena Vista Hills and are also a little higher. The Buena Vista Hills have a very definite anti-cline but in other regards the hills are similar. I have observed the smashing up and breaking up of the hills near McKittrick where the asphaltum runs out and it shows considerable surface disturbance there and structural folds underneath. Now, comparing the Elk Hills with the McKittrick hills I would say that the Elk Hills are undisturbed by any physical evidence of the structural

fold. That they are undisturbed compared with the McKittrick anti-cline.

D. W. MADDUX, A WITNESS CALLED AND SWORN ON BEHALF of the defendants, testified as follows:

DIRECT EXAMINATION

I am a farmer in township 30-21 about five miles from McKittrick. I have lived there fourteen years and have been seven-[1571]teen years in the vicinity of McKittrick.

I was subpoenaed as a witness in this case last Spring and came to Los Angeles in response to that subpoena and remained here five or six days but was not called as a witness.

I am acquainted with a man by the name of E. C. Ryan and saw him in the early part of January, 1904, at McKittrick, and at my own place. At that time I was employed by him to pilot him over some land he was inspecting in the Elk Hills and also in Maricopa. I was employed by him in all at that time for seven days and as I remember it he paid me twenty-one dollars, at the rate of $3.00 the day.

Of these seven days, five days I think were spent by us in the Elk Hills and the other two days on the road to and from the lands out east of Maricopa.

While I was in the Elk Hills with Mr. Ryan during these five days he was evidently inspecting the lands and we examined a number of odd sections. I remember that he was looking for the odd sections. We first found the corners so that we knew the locations

of the sections and then we went out across the section more or less each one of us. I did not know what he was doing as he never told me what his business was and I asked him no questions. The country was very badly broken up and we could not drive very much.

While this examination was going on we spent our nights in McKittrick, usually starting out in the morning about seven o'clock and reaching the hills about eight o'clock. We returned from the Hills somewhere between four and five o'clock in the afternoon. The last day we were in the Elk Hills we went over on the northeast side of the old canal where I found the corner of section one of township 30-23 as near as I can remember. All of the land we examined was in this township as I remember.

Most of the time we were in the Hills we went along the ridge [**1572**] and went down from this ridge to find the sections we were looking for and then would drive back up to the summit and would go east or southeast to find other corners.

We spent the entire days in the Hills as we took our lunch with us. When this work was completed I was paid twenty-one dollars in cash, as I remember it, and signed some sort of a paper which Mr. Ryan made out for me.

While I was in the Elk Hills I observed no mining work going on there of any kind. I saw location notices and all of the corners were covered with these notices. These notices dated back to 1900, 1901 and 1902.

CROSS-EXAMINATION

When Mr. Ryan came there in 1904 he was driven out to my place shortly after the first of January and I think that we drove from my ranch over to McKittrick on that day, but do not remember whether we made any part of the examination on that day or not. I do not remember the sections we went on but think that we went first along the township line on the west side.

It is not my recollection that we spent only two days in the Elk Hills. We were in there four or five days before we went to the other land in Maricopa.

On the last day when we went over by the canal we went into the foothills of the Elk Hills about two or three miles to the south from where we got our bearings on the canal and had to walk up into the foothills. I think there was something that he looked at on the flat.

That is the way it is in my mind, that I got $21.00; that he allowed me $3.00 a day; I wouldn't go for anything less. I was not paid for the team; the team belonged to the livery stable. The only way that I recollect that it was seven days is from the amount of money that I received. There was more than five days, but I am not absolutely sure about the seven days; there were two [**1573**] days of all the time that we spent that we went down near Maricopa—one day going down and one coming back. If it should appear that we only spent five days altogether, then I only spent two days going up into the Elk Hills, but

I am pretty sure that we were there three or four days.

Mr. Ryan did not tell me that he was looking for oil derricks and the only information that he gave me was that his business was to inspect the odd sections or railroad sections. Mr. Ryan frequently got out of the buggy while we were in the Hills and we walked to some of the corners that we could not drive to.

I do not know that Mr. Ryan looked for oil sands or seepages while we were in the Hills. I was looking for them myself because sometimes I located oil lands.

REDIRECT EXAMINATION

Mr. Ryan did not mention derricks to me and made no remark that I can remember about there being no improvements on the land or that he was looking for derricks or anything else.

H. H. McCLINTOCK, a witness called and sworn on behalf of the defendants, testified as follows:

DIRECT EXAMINATION

I live at Bakersfield and am a superintendent of oil properties. I have been connected with the oil business since 1904 and am now connected with the Northern Exploration Company and the Southern California Gas Company. From 1904 to 1910 I was employed by the Standard Oil Company as superintendent of their gathering system which includes all survey work, building up new fields, laying and gathering lines and purchasing oil from the various producing companies. From 1906 to 1910 I was in the

Kern County district, mostly in the Midway and McKittrick fields or what is known as the West Side.

I am familiar with the Elk Hills as I surveyed a part of that country in 1904 and from that time until 1910. Most of my work was in townships 31-24 and 30-24, although I have done some [1574] work in 30-23. In 1904 I ran a preliminary survey in the first two townships mentioned for the purpose of putting in a pipe-line into the Midway District which we eventually did in 1907.

I did not make any special examination of the Elk Hills in 1904 but drove through there occasionally on my way to Buttonwillow. At that time there was nothing at all going on in the Elk Hills. There were probably locations in there but so far as I observed they were abandoned. There was no drilling going on there. The first drilling to my knowledge started in the spring of 1908 on either Section 2 or Section 11 of township 31-24.

From 1904 up to 1909 the Elk Hills were not considered by oil men to be oil land. I was in touch with all the oil men in the district at that time and never heard the Elk Hills discussed as oil land prior to 1909.

In 1904 the oil was supposed to begin down near Pioneer in the vicinity of the old Jewett & Blodget locations. There was some oil in 30-22 in the old McKittrick field and there had been one or two indications on what is known as the Spellacy anticlines in section 30 of township 32-24.

The first actual drilling operations in the Elk Hills

in township 30-23 commenced in 1909. People went in there at that time because it had been discovered that the oil extended farther out in the Midway than had been supposed. A number of big wells were brought in there and this created a demand for oil lands throughout the entire district and everybody got excited so that if you had land located almost anywhere you could sell it or do something with it. Owing to the fact that the land in this vicinity was tied up, people rushed out into the Elk Hills and started to build derricks and to drill.

I was last in the Elk Hills yesterday when I drove through sections 11 and 13 of township 31-23 and on to sections 6, 9 and 12 of township 31-24. There was no work going on there, [1575] but occasionally we would find some junk man in there hauling out material.

About six weeks ago I was in township 30-23 in the Elk Hills with Mr. Latham, geologist for the Kern County Water Commission. At that time everything in there was absolutely dead and shut down as far as we could see. I passed several of the leases and things were at a standstill. In most places the watchmen even were withdrawn and work had been abandoned.

On this visit with Mr. Latham we went to the Spreckels property on section 16 of township 30-22. That was abandoned. We then went to the property of the Scottish Oil Company in township 30-23 and to the properties of four or five other companies.

Everything was shut down and in some cases everything had been moved away that could be moved.

In my opinion the Elk Hills cannot be considered as oil land at the present time. I say this because I have personal knowledge of wells as deep as 4600 feet that are apparently barren and it does not look as if there was much chance below that depth because we do not know how to go much deeper. A well 4,000 feet deep in that territory would cost about $60,000 without counting the cost of water and fuel lines.

A pioneer well there would cost not less than $15 per foot.

Cross-Examination.

I do not know of any discovery of oil or gas in the Elk Hills in paying quantities. During one of my visits to an oil company in township 30-23 while I was employed by the California Natural Gas Company laying gas lines throughout that district, I noticed more or less gas coming out of a well that was being drilled but they didn't have enough gas to do their own work and we sold gas to them.

The development in the Elk Hills started prior to the [**1576**] withdrawal order of September 27, 1909, and this order did not retard the activity of any of the companies that were operating at that time in the Elk Hills. There were many thousands of dollars put into that country after the order was made and they kept on going until the drills couldn't go any further.

The cessation of work in the Elk Hills is not due to financial difficulties because some of the companies

that put their money in that district are also putting money in other places and have plenty for that purpose. But they are putting no more money in the Elk Hills.

A. T. LIGHTNER, seventeenth witness for defendants, Los Angeles.

Direct Examination.

My home is in Bakersfield where I have lived since 1875. During that time I have been county clerk, recorder, assessor and also a deputy in nearly every office in the county except that of Treasurer. At present I am engaged in taking care of Government land matters such as contests in the United States Land Office and preparing papers in any class of Government entries. I am also engaged in doing a great variety of other things, for instance, I am inheritance Tax Appraiser for Kern County under appointment by the State Comptroller and am frequently appointed by the court as a Referee.

I have heard of the Elk Hills and of locations made in there but all I know about them is from the records as I have not been there to see the notices posted. In 1903 I think it was, I was associated with a man by the name of George E. Brown in preparing notices of locations and locating lands not previously located or those on which the locations had lapsed.

I became acquainted with Brown through the fact that I had been interested in some locations north of McKittrick. Brown came to me with a suggested plan of locating up lands that appeared [1577] to be free from locations on the record and inducing

various people to employ him to go on these lands and make locations on them for oil with the expectation that he would receive some payment for his services in doing so. My duties in this connection were to look up the records and ascertain what lands were free to locate. He charged each of the people who went into these locations $20 and went on the ground himself with such assistants as he needed and made the locations, putting up the names of the various people who had gone in on the plan. After that the location notices were put on record. We made no investigation whatever to determine whether the lands located were oil lands or not and the locations were made largely as a speculation, although we endeavored to locate them as near to producing territory as we could find open land. Brown was not an oil man, although he had some general knowledge on the subject and I do not think he knew anything about geology.

A great many people who went in on this arrangement had authorized Brown to make the locations for them. He had a great many of the county officials on his list. There were a few oil men such as Tim Spellacy, but most of these locators were men who were engaged in other lines of business.

There was no work done by Brown or any of these people on any of these locations. I have talked with most of these people and I found that none of them had ever seen the lands and did not know anything about them.

Most of these locations that were made in 1903 were

made in townships 30-23, 31-23 and 31-24 and possibly some in township 30-24.

The discovery of oil in the Kern River Field was made in the latter part of 1898 or the early part of 1899. The excitement of this discovery caused locations to be made in all parts of the country where there were any signs of oil. These locations [1578] covered a very extensive country but by 1903 they had begun to lag somewhat. At that time interest was revived and Brown conceived the idea of making a little money for himself and so evolved the plan I have spoken of.

At the time we made these locations in the Elk Hills we did not do so because we considered that the territory was oil land. We had no opinion as to its oil value, other than we were locating any land that was unlocated thinking that it might be a speculative proposition, and thinking that we might strike some oil land. We didn't know whether it was oil land or not. We thought any land above the flat and lying west of the flat in that country, or the valley pointing towards McKittrick might be classed as having some speculative value for oil. That is all we knew about it.

Cross-Examination.

My part of this location scheme was to look up the records and assist Brown in finding lands that were open for location. We selected townships where there were vacant tracts.

E. S. GRAHAM

Eighteenth Witness for Defendants. Los Angeles.

December 12, 1912.

Direct Examination.

I live at Redlands, California, and am engaged in the real estate and brokerage business.

I am one of the directors of the Redlands Oil Company which operated in Sec. 30, 30-23 in the Elk Hills. This company was incorporated a little over two years ago, and Mr. Ralph Arnold, the geologist connected with the United States Geological Survey at one time, was one of the incorporators.

I was on the property of this company in the Elk Hills on two occasions a little over a year ago while we were drilling. We drilled to a depth of 2850 feet but did not find any oil. We [**1579**] spent about $60,000 in drilling this well. Nothing is being done with it now. The work was discontinued and the property abandoned and the company dissolved, and what little was left in the treasury of the original subscriptions was returned to the stockholders. We stopped work because it could not be carried on profitably. From the reports we had from the surrounding territory of wells that went deeper than we did and gave it up, we thought it was unprofitable commercially. We did not think it was best to go ahead and develop.

The people connected with this company were financially able to go ahead if they desired, for several of them were wealthy men. The only reason we discontinued work was because of our failure to find oil. Everything connected with the well that was saleable was disposed of and after deducting what we received in this way the net cost of the well was

about $60,000. We did not sell the claim but allowed it to lapse.

As the result of what Mr. Arnold told us, we thought we would strike oil at 1800 feet.

Cross-Examination.

I am not a practical oil man. There might be great quantities of oil below the point where we stopped drilling, but we did not think it would pay to go deeper. I think we were unanimous that we had gone as far as we were justified in going. The log of the well might have shown some traces of oil. I do not know about this. There was some gas shown but I don't know that there was any oil. I never heard that the Redlands well had been known as a 25-barrels-a-day well, but wish I had known that.

All I know about the surrounding territory is from the reports we received concerning the drilling carried on by others. The directors accepted the reports we got from our superintendent concerning the Scottish well, which was put down about 4,000 feet, and that was one of the influences that discouraged us from going ahead. [**1580**]

We were not influenced by the withdrawal order of September, 1909. That matter was discussed but we were of the opinion that we were safe in going ahead in making our development. We left the question of the effect of this withdrawal to our legal adviser and were told it was all right to go ahead. If we had not thought so we would not have put so much money in the development. This withdrawal order had nothing to do with our quitting work over there.

JAMES A. OGDEN

Nineteenth Witness for Defendants. Los Angeles. December 12, 1912.

Direct Examination.

I live at Bakersfield, California, and am superintendent of the Kern County ranches belonging to Miller & Lux, and have been such for eighteen years, and have lived at Buttonwillow and Bakersfield during the whole of that time. I am familiar with the Elk Hills which lie directly south of Buttonwillow.

I was first in the Elk Hills about 1895 and have been traveling over them from time to time during the eighteen years I have been in that country looking after stock and feed, etc. We leased this land from the Southern Pacific Railroad Company with the exception of two years ever since they have had it, for grazing cattle and sheep. The feed in the Elk Hills depends a great deal upon the seasons but in the Spring of the year we almost always have feed and practically the year around, there was more or less feed in that country. There is a good deal of Foxtail and grass we call bronco grass and some alfileria, which furnishes feed for cattle and sheep.

I had some locations at one time in the Elk Hills. Some of the men on the ranch went out and located this land and my name was used by them in these locations. I did not make the locations myself and was not on the ground when they were made. [1581] I probably knew at the time where they were but I am not able to say now. One of the men who made these locations was a man by the name of Meaves who

was the railroad agent at Buttonwillow. We did nothing with these locations. I think I put up a few dollars to pay the expenses of recording the notices but that is all.

At the time when these locations were made, I cannot say that I considered the Elk Hills to be oil land, as I thought very little about it. I was not an oil man and the other men simply used my name and I let it go at that. None of these locators were oil men, as far as I know, but they were all greenhorns in that business.

At that time I had not heard any oil men discuss the Elk Hills as possible oil land but there were a great many people going in and locating land there. They put up no derricks and the only work done was to dig a hole here and there or fix a crossing to allow a wagon to go over a gulch. The first actual development work in the Elk Hills began about three or four years ago. Two years ago there were a number of rigs working in there but at the present time there is not one.

Cross-Examination.

The records show a number of locations in the Elk Hills in which my name appears, but I never put up any money in connection with those claims, except possibly for the filing of the notices of location.

At this time the lands in the Elk Hills are under lease to Ardizzi and Olcese but we exchanged land with them so that we had the use of the Elk Hills. They paid seven and one-half cents an acre per year for the grazing privilege in the Elk Hills. Under

the arrangement we have with them, we give them the use of 1,000 acres around the borders of Buena Vista Lake with the water privilege, in return for our right to use about twelve or fifteen thousand acres of land in the Elk Hills for grazing purposes. [1582]

There is grass practically the year around in the Elk Hills, but Miller & Lux control the only water in that vicinity and the lands are not valuable for grazing without water. [1583]

M. H. WHITTIER, a witness called and sworn on behalf of the defendants, testified as follows:

DIRECT EXAMINATION

My home is in Los Angeles and I am engaged in the oil business and have been for about twenty-three years, principally in California and the Indian Territory. I have business interests in practically all of the oil fields. I learned the old business first as a laborer and have followed it right along. I am now vice president of the Bellridge Oil Company and am a director of the Associated Oil Company and connected with other companies and have properties of my own at different places, and am actively engaged in the production of oil.

I am familiar with what are known as the West Side Oil fields, including McKittrick and Midway. I first went into that country in 1899, and since that time have kept in touch with what was going on there.

From the time I went in there up to 1905 the production in that field was along a narrow strip through

there. Our experience was limited in those days but we have broadened out a great deal and learned that oil can be found were we did not expect to find it.

Up to 1905, there may have been some people who considered the Elk Hills as oil land, but I was not particularly interested in them and never have been. The Associated Oil Company with which I am connected, acquired interests there in recent years, but I never thought of it as an oil country. I have been interested in acquiring new property for myself since 1899, and have drilled many wildcat wells since that time in various places.

I have been on the property of the Associated Oil Company in the Elk Hills while they were drilling there. I am not as active with the company as I used to be but I went out there [**1584**] where they worked to see how things looked. The first time I was there they had found a little oil which, I think, was the reason I went out there. If I remember rightly they were down to a depth of 4,000 feet.

From the work that we have done there and the expense we have gone to and the small amount of oil we got, I hardly think we would now consider the Elk Hills or any portion of them as oil territory. There was a time that people, during the excitement, thought that was oil territory, and the Associated went in there by the advice of very good people, but I think they are kind of sick of it. My opinion about it is that they made a mistake. I do not know how they feel about it as a company, but in my personal judgment I don't think very much of it.

CROSS-EXAMINATION
of
M. H. WHITTIER.

I became a director in the Associated Company in 1902 or 1903. The Southern Pacific Company obtained a stock control of the Associated Oil Company in October, 1908, but did not take control of the board of directors until 1910. At that time I went off the Board of Directors. I went back on the Board of Directors in the fall of 1911 and am still a Director of the Associated Oil Company. The Associated Oil Company has a capital stock of 400,000 shares. I own over 10,000 shares of the capital stock of the Associated Oil Company. These shares have a par value of $100, and their market value ranges from $40 to $45 per share.

I never did visit the Elk Hills particularly. I have been over there but I never did make an examination of them for oil. I am not a geologist and never made a geological reconnaisance of any portion of the Elk Hills at any time.

I never visited the Elk Hills until recent years, but [1585] I have known the West Side country as well as the average man for the last fourteen years. I will not say under oath that the Elk Hills are not oil lands, and I do not think there is any man under oath who can tell what are oil lands until he has drilled for it. We found oil sometimes where we did not expect to, but as to the general conditions there, I never took very favorably to that country.

That would not mean that it was not oil territory particularly.

There are other places that I would rather go to than the Elk Hills, as they are one of the expensive places to operate. What we look for is a place where we can get returns from our work.

The Associated Oil Company employs geologists but they make mistakes. For instance, they turned down the property on which the Bellridge Oil Company is now working. I do not think that the geologists have helped us out much in that field. I don't think that the Associated Oil Company have abandoned any of its property in the Elk Hills by what I understand as abandoned.

REDIRECT EXAMINATION
of
M. H. WHITTIER.

I think that the Associated Oil Company made a mistake in going into the Elk Hills. We have bought a great deal of land in the Lost Hills and paid quite a sum for it, and I think in the Elk Hills also. We spent a large amount of money there and have not received the results that we should have from the wells we drilled. This company, as well as other large companies in the field occasionally takes a gambling chance on new territory.

I have had about 23 years of practical experience in the oil fields. I started in Ventura County, went from there to the Los Angeles field and help open it up. I went from [1586] there to Coalinga and did considerable work there. After that I was in the

Kern River field and then became acquainted with the McKittrick districts. I was one of the pioneers in the Kern River field and later in the McKittrick field and also in the present Bell ridge field. Prior to 1905 I lived in Los Angeles but was in the West Side fields very frequently and during all of this time kept in touch with the work that was going on, but I never heard the Elk Hills being discussed as oil territory by any oil man.

I am not aware of anything at this time that would attract me to the Elk Hills and I would not advise any man to invest money in the Elk Hills on the chance of finding oil in commercial quantities. On account of the work that has been done there I would not even advise him to take a gambler's chance on it. My opinion is based altogether on the work that has been done there, which I think is not very encouraging.

RE-CROSS EXAMINATION
of
M. H. WHITTIER.

The Associated Oil Company has discovered oil in the Elk Hills. I am not willing to condemn the Elk Hills as a commercially profitable territory on the work that has been done there. In fact, I don't know anything personally about it except I have my own views. I don't think anybody can swear that there is no oil in the ground. [1587]

EUGENE OVERTON, a witness called and sworn on behalf of the defendants, testified as follows:

DIRECT EXAMINATION.

I am an attorney, and am a member of the firm of Chase, Overton & Lyman. In 1910 I was a member of the firm of Lee, Chase, Overton & Valentine, which firm represented the Buena Vista Land & Development Company at that time. In connection with a contest that this Company had concerning some lands in the Buena Vista Hills in Kern County, Dr. J. C. Branner of Stanford University was employed to make an examination of these lands, and on October 18, 1910, we received a written report from him showing the results of his examination. I have been unable to find the original of this report but recently wrote to Dr. Branner and obtained a copy which I now produce.

Said copy was thereupon produced in evidence as Defendants' Exhibit 5, and reads as follows:

"(COPY)

Stanford University, Cal.
Oct. 18, 1910.

Lee, Chase, Overton & Valentine,
Los Angeles Trust Building,
Los Angeles, Cal.

Gentlemen:—

I have examined the lands in and about the Buena Vista Hills near the town of Taft in this state, which are indicated on the accompanying outline map, namely: 32 south, 24 east, section 2 (all but the southeast quarter), section 4, section 6, section 8, section 12, the south half of section 14, and section 20.

This examination was made for the purpose of de-

termining whether or not there are on the sections mentioned indications of valuable minerals in paying quantities. In order that nothing of importance should escape me, I personally went over each of the [1588] tracts mentioned, examining the exposures along gullies, and roadsides, and following the land lines along the routes indicated on the accompanying map. In addition to these examinations of the lands in question I kept a constant lookout for geologic evidences that might appear on the adjoining lands and that might throw light upon the geology of these particular sections.

The fresh water origin of the formations exposed over the surface.—The geologic formations exposed over the sections mentioned are everywhere the same with slight local variations. They are composed of sands, gravels, clays, and boulders, the gravels and boulders all being more or less waterworn. The bedding and waterwearing of the materials show that they were deposited in water, and the finding of the fragments of Unios or fresh-water clam shells at several places, especially on section 2 along the north and west sides, on section 12 at and about the northwest corner, and on section 14, near the middle of the east side, show that *these deposits were laid down in a body of fresh water.*

Under ordinary circumstances deposits of fresh water origin may contain important placer deposits of gold, tin, or diamonds, but nothing was seen that would lead me to suspect the presence of any of

these or of any other minerals, with the exception of small quantities of gypsum.

Gypsum.—Small patches of gypsum were seen at several places, but none of these gypsum deposits have any commercial value either immediate or remote. The nature and origin of the formations of which the gypsum is a part preclude the possibility of the deposits being large or more than small local patches of no importance. A chemical examination of two specimens of the gypsum taken by me on section 10 show the material to contain 73.86 per cent. of gypsum.

Indications of oil.—Epecial effort was made to [1589] find indications of the presence of petroleum on these lands. Seepages of petroleum and beds of asphaltum were looked for on all of the sections in question, but none was found.

Old oil seepages, however, are known and were seen on one of the adjoining sections (section 11).

The question arises whether a seepage of oil on section 11 could be considered geologic evidence of the existence of petroleum on section 12 or on any other section involved.

As a conservative geologist I hesitate to express an opinion on this subject without more evidence than these seepages afford. I have seen enormous asphaltum deposits where no oil could be found by deep wells put down in the most favorable localities in the vicinity.

Seepages and asphaltum deposits cannot there-

fore be regarded as unquestionable evidence of the existence of petroleum in the adjoining sections.

Evidence from outside of the Buena Vista Hills.—In spite of the absence of direct evidence to be found in the geologic formations on the lands in question, a study of the broad features of the geology of the southern end of the San Joaquin Valley leads me to the conclusion that these lands probably do have oil beneath them. The features referred to are the existence of an enormous thickness of oil producing shales along the west side of the San Joaquin Valley, the association with these shales of porous sedimentary deposits, and the folds beneath and along which oil and gas usually accumulate.

If oil had not been found, however, in the region south and west of the Buena Vista Hills a geologist would have been very bold indeed who would have ventured to predict the existence of petroleum in the Buena Vista Hills themselves.

Very truly yours,

(J. Signed) J. C. Branner

Consulting Geologist." [1590]

Mr. Mills—Let me ask Counsel whether this letter which has been marked as Exhibit 5 is intended in any way as an impeachment of the testimony of Doctor Branner?

Mr. Lewers—I wouldn't say that, Mr. Mills, because I don't think Doctor Branner is a man that is open to impeachment. But it is explanatory of the testimony given by him about the particular territory referred to in this letter.

CROSS-EXAMINATION
of
EUGENE OVERTON.

The Buena Vista Land & Development Company obtained its title through indemnity state selections.

A rehearing has been asked for in this case. The Honolulu Oil Company had made a contest against the state selection made by our company upon one of the quarter sections and in March, 1912, I was served with a notice of motion which was to be made before the Secretary of the Interior on April 4th by the Honolulu Consolidated Oil Company, the effect of which was to ask for the cancellation of the state selection of the Southwest quarter of section 4. It has not yet been decided. The Honolulu Consolidated Oil Company is the successor in interest of the mineral locators on sections 2, 4, 6, 8, 12, 14 of township 32 South, Range 24 East and a quarter of section 10 in the same township and range. They are endeavoring to obtain the title on mineral locations but in order to do that they have to get the state locations out of the way first. I believe their object in initiating these contests against the state selections was for the purpose of acquiring the title because of the mineral or petroleum bearing character of the lands affected, which I have described. [1591]

JOHN A. POLLARD, a witness called and sworn on behalf of the defendants, testified as follows:

DIRECT EXAMINATION.

My home is in Bakersfield, California. I am a su-

perintendent of drilling and also a drilling contractor and have been engaged in the oil business about 16 years in California, Texas, Lauisiana and Old Mexico.

I first went into the West Side fields in Kern County about three years ago, at which time I went to the Buena Vista Hills, to the property of the Honolulu Consolidated Oil Company in township 32-24. I went to work for this company in October, 1909. This company was then drilling a well on section 10 of township 32-24 which had reached a depth of about 1600 feet, and was producing about twelve million cubic feet of gas per day. They were unable to cope with this gas with the methods they were using and I was employed to see what I could do with it. I succeeded in stopping the gas pressure so as to enable us to proceed with the work and drill the well further down and made the first discovery of oil that was made in that section of the country. This discovery was made on February 2, 1910.

The immediate result of this discovery was a considerable commotion in that Section of the country and to the north and west particularly. The next morning after the discovery I, with my field glasses could see that there was great activity across the valley to the north and the teams were hurrying in there with tents and provisions and material preparatory to building camps and drilling wells. This extended almost entirely across the south portion of the Elk Hills.

After that time I was over in the Elk Hills myself

as I was particularly interested in that section of the country. I did not visit any particular property but visited the whole country in general. I was at the Kinsey well and on properties operated by the Hart Oil Company, Associated Oil Company and several others [**1592**] whose names I do not remember at this time.

Those wells were all situated in the Elk Hills. It would be impossible to state the number of times that I have been over there between 1910 and January 1st, 1912, but my attention was attracted towards that section of the country on account of seeing the vast development that was going on since the discovery of oil on the property which I was occupying.

I was last in the Elk Hills in 1912 at which time there was very little going on there. There had been considerable development prior to that but when I was there very little was being done. I think the Associated Oil Company was drilling at that time.

As a result of my experience in the oil business and upon my knowledge of the Elk Hills country and the Buena Vista Hills and the surrounding country and my observation of what has taken place there, I would not advise a man who had capital to invest in the Elk Hills with the hope of finding oil in paying quantities. Oil men generally disregard the Elk Hills and think that it is not oil bearing territory.

I am familiar with the general opinion concerning the Elk Hills and I have confidence in the men who drilled wells there and from my own knowledge I

would not want to invest any of my own money in that locality.

In speaking of the Elk Hills as not being oil territory I did not include the territory where the Associated Oil wells are situated. I have no particular knowledge of the amount of oil that has been produced there and think that perhaps that territory might be commercial, but it would not be a very paying commercial proposition and according to my recollection I don't think they have produced more than 150 barrels a day and I don't know that they have shipped out any at all.

We have not found that the oil is persistent over the [1593] territory in the Buena Vista Hills. There have been many dry holes drilled which prove this. On section 18 of township 32-25 a well has drilled 5,000 feet deep and made no discovery of oil, although they had some gas. On section 2 of township 32-24 they drilled over 4,000 feet and no discovery of oil has yet been made. On section 22 of township 32-24 a well has been drilled 3200 feet deep and no discovery of oil made.

According to my observation and experience it is a very common thing to find that oil-sand cropping at one place will not be encountered by wells drilled at some distance from that place. Such instances are very numerous and have been revealed in the Buena Vista Hills by the wells I have referred to. It frequently happens that oil may be found at one place in a particular formation and a short distance away oil will be found in another well in a different forma-

tion without there being anything on the surface to indicate a change.

I am now engaged in conjunction with Mr. Ralph Arnold, geologist, in preparing a paper on the conservation of hydrocarbons and light oils, which work is being done under the direction of Dr. Holmes of the Government Bureau of Mines.

There are anticlines to my knowledge in the Buena Vista Hills. We have one that started on section 5, Township 32, South, Range 24 East, and it runs in a Southeasterly direction across township 32-24 and there is an anticline that runs almost at right angles with this one and goes across the SP of 11 in the same Township at almost right angles. If there are any others in that township I don't know of them.

CROSS-EXAMINATION
of
JOHN A. POLLARD.

I believe that the well I referred to in the Elk Horn valley as being the most Easterly well is known as the Boston [**1594**] Pacific and is located on section 32, Township 31 South, Range 24 East. If that well is producing oil I don't know it. Some of the wells in the Elk Hills have been drilled by rotaries and some by standard tools. In using a rotary if the head of the well using the rotary is not connected by means of a "T" to the outside of the derrick you might probably pass through oil and not discover it. I believe that the Pyramid well has an immense gas pressure from the 3500 foot level down. I know as a driller for the Honolulu Oil Company that within

one and a half miles of the Pyramid that there are two good wells in section 12, township 32 South, Range 24 East, which are owned and operated by the Honolulu Consolidated Oil Company. I drilled one of those wells. I didn't mention this in my direct examination because I didn't see any need of it. I heard Mr. Overton's testimony in which he said that the Register at Visalia had decided on section 12, Township 32 South, Range 24 East, in favor of the state selection and against the oil claimants and I know as a matter of fact that there are several wells on that very section producing petroleum today. If I testified that on section 2, Township 32 South, Range 24 East they had drilled a dry hole it was a mistake. What I intended to say was that they are now drilling on Section 2 but have not yet gone into the oil stratum. I was up in that township about sixty days ago and there is one good well on section 11 and one on section 10, both within a mile and a half of the wells on section 2. There are also good wells within a mile and a half of this well on section 2, section 4 and section 12. Within a mile of section 2 that I have mentioned there was a well brought in by the Honolulu Company on section 10 which produces twelve million cubic feet of gas a day and also produces one hundred barrels of oil a day. All the dry holes that I have mentioned are situated on the flank of the Buena Vista Hills or out in the flat. I do not pretend to be an expert on anticlinal axes. I confine my activities to drilling [**1595**] and getting the oil out of the ground. I am no longer in the

employ of the Honolulu Consolidated Oil Company. Jack Whaley succeeded me as superintendent. I don't think I should be compelled to tell why I left the Company and I refuse to tell unless I am ordered by the Court to do so.

CHARLES H. ALLISON, a witness called and sworn on behalf of the defendants, testified as follows:

DIRECT EXAMINATION.

I live at Glendale in Los Angeles County, California. My business is that of expert well shooting. In other words I am a dynamiter. I am a member of the firm of Allison & Berry and we carry on our operations in all the oil fields of the state.

I have been in California since 1895, and have been in what are known as the West Side fields in Kern County. I first went to those fields in 1900 when I made a trip to section 22 of township 32-23 to what is known as the Bay City oil property. At that time I was selling oil well supplies for the R. H. Herron Company of Los Angeles. I was connected with this company as a salesman in that territory from early in 1900 up to April, 1903. At that time I went into business for myself renting oil well fish tools with my headquarters at Bakersfield. I continued to cover the Kern River, Sunset, Midway and McKittrick fields, going in there on an average of perhaps twice a month.

From 1900 up to 1905 I was familiar with all of the oil development that had been carried on in the

West Side fields. At McKittrick the development was near what we called Olig Station a mile or two from McKittrick.

I am familiar with the Elk Hills and have been through them a great deal. My name appears upon some locations that were [1596] made there on January 1, 1901, together with the names of R. S. Ashton, Fred Kugler and others. We did nothing with these locations but allowed them to lapse.

In 1903 or 1904 I sold some pipe to Frank Lowe, Hoy and others who were drilling for oil near Buena Vista Lake in the vicinity of section 12 of township 30-24.

I have recently had occasion to go into the Elk Hills a number of times in connection with my business of well shooting. We dynamite wells for various purposes. Sometimes we are called on to dynamite casing when it is desired to pull it out and to abandon the well and we also do it for various other purposes.

On December 13, 1911, we shot off the casing of the Green and Hutchinson well in section 4 of township 31-24 for the purpose of pulling the casing out of the well and abandoning the well. There was no showing of oil at that well at the time we were there.

In October, 1911, we shot off the casing in the Scottish well in section 20 of township 30-23 so that it could be pulled out and the well abandoned. We also shot off the casing in the Hart well in section 13 of township 31-23; the Standard Oil Company well in section 16 of township 31-23 on December 3, 1912, at

a depth of 3162 feet; and a well for Lindeman & Howk in section 4 of township 31-24.

CROSS-EXAMINATION
of
CHARLES H. ALLISON.

I know that these wells were being abandoned because I am a practical man and know that the owner of a well is not going to shoot off one string of pipe after another in a well that has cost twenty-five or thirty thousand dollars unless he [1597] intends to abandon it.

My opinion is not based on any personal knowledge, certainly not, it is based upon hearsay and my judgment of the surrounding facts. I have no personal knowledge of the ultimate intent of the parties that employed me to shoot these wells and that is true as to all that I mentioned.

I did not believe in these locations in which my name appeared in the Elk Hills enough to put any money in them, although I did contribute toward the expense of recording the notices.

I saw specimens of sands taken from the side hills and from the gulches and the canyons from the outcroppings in Township 30 South, Range 23 East and believed in the mineral and oil character of the land as prospects and I contributed money to set up the stakes and give notice of our claims upon the ground. Several of my co-locators went out on the land and placed the location notices and after examining the land they returned and brought with them and showed me numerous specimens of bituminous rock

and a mixture of that rock and asphaltum which when a match was applied burned indefinitely. I knew Mr. J. B. Treadwell. He was in charge of the drilling and oil operations of the Southern Pacific Company out in the West Side fields. From my knowledge of Mr. Treadwell's operations I do not think that the selection of oil lands for the Southern Pacific Company or the Southern Pacific Railroad Company, was left so much to the discretion of Mr. Treadwell as it was to Mr. Josiah Owen and Mr. E. T. Dumble. I know that in 1901, '2 and '3 that they were examining lands in and around McKittrick to determine the oil possibilities of those lands. I know E. T. Hoy, Dan Hoy, Frank Lowe and a man by the name of Bone and one by the name of Cochran. They were all interested in what was known as the Western Union Oil and Development Company and they had their offices at Bakersfield. I know that in 1902 that they [1598] sunk a well near the section corner common to sections 1, 2, 11 and 12 of Township 30 South, Range 24 East. That they went about 1000 feet and secured some gas. I supplied them with two strings of casing for that well, also with a gas heading to retain and hold that gas and they connected up the gas with a range and used the gas for cooking and heating purposes. They had some financial troubles just about that time and their finances becoming exhausted they quit work there. This well is on the South slope near the East end of the Elk Hills. At the time that these parties quit work on that well they owed me some money and the casing was pulled to

help pay debts. In my trips into the Elk Hills since I located there I have seen out-croppings of asphaltum and bituminous rock similar to the samples that were shown to me in Bakersfield by my co-locators. [1599]

C. H. MEVES, a witness called and sworn on behalf of the defendants, testified as follows:

DIRECT EXAMINATION.

I am agent for Wells Fargo & Company at McKittrick and have been living there for about five years. At one time I lived at Buttonwillow. I was agent of the Southern Pacific Company at that place from 1893 until 1905. I knew all of the men around Buttonwillow who were working for Miller & Lux. At the end of 1899 or early in 1900 together with some of the employees of Miller & Lux, I rode out into the Elk Hills and made some locations. Nothing else was done with these locations as we figured we could hold the land and if there was anything in them we would have a chance to get in on it and if they were of no value we were not out much.

Shortly before we made these locations there had been an oil excitement in the Kern River and McKittrick fields and that led us to take this land up in the hope that it might prove to be all right at some time. In making these locations we looked for shale on top of the ground. We were greenhorns and had been told that if we found shale we would probably find oil. We did find some shale and we made the locations because of this discovery and because the land was

vacant. None of the men who were in on these locations were oil men.

In the next year I think we took up some land back of Carneros Springs about 30 miles northwest of McKittrick. We did some assessment work on the claims at that place and I think we spent three or four hundred dollars but we never did any drilling. We never did any assessment work, however, in the Elk Hills. I never went back there to make any locations but the others may have done so.

The recent excitement in the Elk Hills began about three years ago but there is no excitement there now and things are very quiet. The general impression amongst oil men and [**1600**] others at McKittrick is that the Elk Hills territory is no good for oil.

CROSS EXAMINATION OF C. H. MEVES.

I was located at Buttonwillow for eleven or twelve years and continued to work for the Southern Pacific Company at that place and other places until 1909 or 1910.

About the year 1900 while I was agent at Buttonwillow I used to see Mr. J. B. Treadwell, the Southern Pacific oil man, around there. It seems to me that he was around there for six months or a year. They didn't have any daily trains from Buttonwillow to Asphalto and he used to come on one of the railroad motorcycles and he used to frequently stop at Buttonwillow. After they put the regular daily run on I didn't see him so often; once in a while would see

him when he passed through. He was employed at that time by the Southern Pacific Company looking after their oil lands at and around McKittrick and the West side field and he was also examining lands for their oil possibilities and it was on his judgment, so far as I know, that the Southern Pacific company selected oil lands around that country. I knew a man by the name of E. T. Dumble, who was in the employ of the Southern Pacific Company as Consulting Geologist. I had just a slight acquaintance with him. I also knew a man by the name of Josiah Owen. I have seen Mr. Dumble in and around the Elk Hills but I don't know that I ever saw Professor Owen there. This was along in 1902 or '3 but I am not positive as to the year. I have seen these gentlemen together driving. At that time Mr. Dumble was the head man of the K. T. & O. and all his foremen and employees reported to him and they would send lots of mail from the offices. All the reports went to him. I handed lots of telegrams to him about the daily production of oil and all that kind of thing. Mr. Owen's business was merely looking the ground over.

We made these locations in the Elk Hills because the oil [**1601**] excitement around there affected us and we thought that we might have a chance to make something if there was oil there.

The only time I went out for the purpose of making these locations must have been on New Year's day of 1900. I cannot say that we thought well of these locations at that time as we did not know anything

about the land. We were just like others who were taking up land on the chance that it might turn out to be all right and we didn't know anything about oil at all. We understood that that we could make our locations and that we had two years in which to do our assessement work and that we could hold on to the locations for that time and see what turned up.

My wife and I were interested in numerous locations in the Elk Hills after 1903. Our interests consisted in having our names placed on the location notices by other parties.

After the drop in the price of oil at McKittrick we lost interest in these locations. We didn't think enough of the land to want to put any money in it. There were no companies coming down that way to prospect the land so that we could get a line on what was in them.

C. A. BARLOW, a witness called and sworn on behalf of the defendants testified as follows:

DIRECT EXAMINATION.

My home is in Bakersfield, California, where I have lived since January, 1901. During that time I have been engaged in the oil business and mining business. From 1896 to 1898 I was a member of Congress from the Sixth District of California.

My experience in the oil business has been largely in the Maricopa and Midway field. I had a small interest in an oil company at McKittrick. I first went into the Midway in January, 1901, and from that time up to 1905 I went all over the fields there pretty gen-

erally and particularly the country known as the [1602] Midway and Maricopa field. The occasion for going over this country was that my partner, Mr. Hill and I were engaged in the preparation and publication of annual maps of the oil fields and I personally collected a great deal of the data for these maps in the fields. Mr. Hill did most of the office work in connection with the publication.

As a result of my observations in collecting this data I found that prior to January 1, 1905, the oil development was confined to the field running from Maricopa through the Midway up to what is known now as the north Midway field and then to the McKittrick field. This development was along the northeast side of the Temblor Range of mountains and varied in width from two to three miles out to the foothills of the range. At that time it did not get away from the foothills any distance to speak of.

During those years I was interested in sections 23 and 25 of township 32-23 Mt. Diablo Meridian and also in sections 2 and 3 of township 11-24 San Bernardino Meridian.

We were producing oil in three different places in sections 25 of township 32-23 on what is known as 25 Hill. We were also interested in the Sunset field in the Adeline Oil Company and Adeline Extension Oil Company.

I am acquainted with the hills known as the Elk Hills and went in there for the purpose of drilling for oil in the spring of 1910. The statements in Bulletin No. 406 written by Ralph Arnold and Harry

Johnson had a great deal to do with our going in there. We took over some locations that had been made by others in sections 2 and 3 in township 31-24. We put up derricks and began drilling a well on the southeast quarter of each section. Both of these wells were drilled to a depth of between 1250 and 1400 feet. When we started the wells we were led to believe by the statements in Bulletin 406 that we would get oil at a depth of about 1300 feet. When we had gone to this depth [**1603**] without striking oil we delayed further operations to see what result Mr. Kinsey would get in his well on Section 12 in the same township. He drilled to a depth of about 4800 feet and abandoned his well and we then abandoned our wells and moved off everything that we could move to any advantage. This development work cost us something over $72,000.

At the time we went in there there were a great many of the large producers commencing operations in the Elk Hills, including the Esparanza Company, the Balfour-Guthrie Company, Union Oil Company, Associated Oil Company, and Hart Oil Company.

I endeavored to keep reasonably well posted on the work that was going on in that country especially at that time as we were getting out the map books I have already mentioned. In collecting data for these maps I always endeavored to ascertain whether a well was producing oil or not. We endeavored to have our maps show the situation and development as accurately as we could get the information and I think that our books were considered to be the most reliable

that were ever published in connection with that field. On account of the reputation of these books the operators were very glad to give us information in connection with their wells.

I was in the Elk Hills last in the spring or summer of 1912. At that time there was no work being carried on there and the different operators of whom I have spoken had either shut down or moved out.

I would not advise anyone to go into the Elk Hills now and expend money with the expectation of finding oil. I certainly would not go there myself and I would not have gotten out of there if I had any idea of getting oil. I do not profess to be a geologist and base my conclusion upon my practical experience as an oil operator. I would rather take a practical operator's opinion of an oil territory than that of any geologist I ever saw. [**1604**] I have good reason for saying this because I know that the Kern River field was turned down by every geologist who examined it and yet a wonderful oil field was developed there. The locators who hired geologists during the excitement at Kern River were all advised by these geologists to go northeast from the discovery up toward the river. They got no oil there at all and the other fellows who went out into the field and took what was left to the northwest got the Kern River field.

Our withdrawal from the Elk Hills was not due to financial difficulties. We had spent all the money that we cared to spend there and had reached the

conclusion that it was not practical to develop oil in that territory.

CROSS EXAMINATION
OF
C. A. BARLOW.

I put up between eight and ten thousand dollars of my own money and my partner, Mr. Hill, put up a like amount for this development in the Elk Hills. We concluded from the fact that Mr. Kinsey had failed to find oil and from the other drilling around there that we should abandon our property.

Q. However, the amount that you yourself spent was eight or ten thousand dollars? Is that right?

A. Yes sir; something of that kind. But I will say, further than that, that when we moved out of there of course we were short of money in the treasury to pay our bills, and Mr. Hill and myself paid several thousand dollars of money that other fellows who owned stock in the company should have paid whom we had invited in, but we didn't feel they were able to carry it.

Q. You were somewhat influenced in abandoning your attempt there on Sections 2 and 3 in 31-24 by the results obtained by Mr. Kinsey in the well near there?

A. Yes sir. [1605]

Q. In which he had gone somewhat deeper?

A. Yes sir.

Q. Now, that well of Mr. Kinsey's was sunk in the neighborhood of 4000 or 4500 feet?

A. Something over that, I think. I don't remember just what the depth is. I think is was very nearly 5000 feet.

Q. And to what depth had Mr. Kinsey's well been sunk at the time you withdrew your tools from Sections 2 and 3?

A. He had abandoned the well before we withdrew them.

Q. And you judged from his failure at that time to get oil that it would be useless for you to proceed further?

A. Yes; that in connection with other drilling around there.

Q. You were largely influenced by his failure to get oil there?

A. That was one of the influences.

Q. Did you pursue your investigation far enough to know that the plunge or dip of the anticline on the Elk Hills is toward the Kinsey well, and that there would be very little possibility of Mr. Kinsey ever getting any oil there at all?

A. That might be possibly proved to be so, although the Esperanza had a very deep hole right south and got nothing.

Q. And that is owing to the condition of the dip of the anticline?

A. I don't know. It might be.

Q. In other words, you didn't pay much attention to the dip of the anticline at the time you located those wells?

A. I read Mr. Arnold's report very carefully and formed my own conclusion.

Q. Can't you make that answer more specific? (Question is read by the reporter.)

A. Yes; we took considerable time and paid a good deal of [1606] attention to studying that out—Mr. Hill and myself.

Q. Did you have the advice of any geological expert?

A. No; we don't go very much on geological advice.

Q. And you had no advice from any geologist on those questions?

A. No. I wouldn't pay a geologist a cent for any information he could give me on the location of a well.

Q. And you have entertained that opinion ever since you have been in the oil business?

A. I have—no; I won't say that. Hold up. I won't say that. That is the result of my observation in the twelve years I have been in the business.

Q. And yet we find you in the spring of 1910 going in on the advice of Mr. Arnold into the Elk Hills?

A. Yes sir; that was one of the factors. Everybody was going in.

Q. Which is the fact—that you went in on the advice of Mr. Arnold or that you went in on your own initiative and the combined judgment of yourself and your partner, Mr. Hill, on Section 2 and 3, 31-24?

A. That report, I think, probably somewhat influenced the movement that way. Oil men were go-

ing in there. Operators were going in there, and we naturally went along with the rest, you might say.

Q. Well, did you naturally go or did you go because of Bulletin 406 that was prepared by a geologist?

A. Well, I would say that Bulletin 406 might have had something to do with our going there, but it was not a determinative factor.

Q. Well, you had formulated the opinion prior to 1910 through some ten years' experience in the oil business that a geologist's opinion was of no value to you. Would it then [**1607**] have had any influence in determining the location of those wells by you and your partner?

A. Oh, it might have been a factor and probably was. But I am not a very great admirer of geologists' reports.

Q. Was your opinion strengthened or weakened by your experience in Sections 2 and 3 that you have described?

A. It was strengthened, I suppose.

Q. And it was largely strengthened because of the limitations placed in that report at 1300 feet, was it not?

A. No, no. If we had had any idea that we could get in there from the development work going on around there that there was oil at 3000, we were prepared to go down.

Q. You know, do you not, Mr. Barlow, that oil has been discovered in Section 30, 30-24, and in Section 24 and 26 in 30-23?

A. I have seen the oil in Section 30 and Section 26.

Q. So that you know that discoveries were made there?

A. Yes sir.

Q. At what depth was that discovered?

A. I don't remember off hand.

Q. Can you approximate it for the benefit of the record?

A. No, I don't think I could endeavor to do that. It is a matter of conjecture.

Q. Did I understand you to say that you kept in close touch with the operations in the Elk Hills and elsewhere that were embraced in information conveyed by your maps and books published by you and Mr. Hill?

A. Yes sir; but not particularly to locations of the wells or particularly to the depths at which oil might have been discovered.

Q. Generally as to the fact whether oil had or had not been discovered? [1608]

A. Yes sir; that was it, largely, as near as we could get it.

Q. A practical operator does not pretend to know, does he, whether or not oil is below the place where he stops his drill?

A. Oh, when a man is wildcatting he generally goes on till he satisfies himself or is satisfied by the operations on adjoining property that it is useless to spend any more money. I am operating right today—

Q. I will repeat the question. Does a practical operator, from your own experience, from what you know of the oil business, pretend to know, after he has stopped the drill at a certain level, whether oil does or does not exist to a certainty below the point where he stops the drill?

A. It depends on where he is operating. If he is operating on unproven territory, any man is a fool to pretend that it is below there for a certainty.

Q. Does a practical operator in proven territory pretend to know that oil exists or does not exist to a certainty below the point where he stops his drill?

A. No sir. No man in drilling an oil well can say to a certainty that oil exists at a certain point, because right in the heart of proven territory, with wells all around, I have drilled absolutely dry holes away below the depth at which the oil had been found.

Q. Then you are not able to determine yourself whether oil exists below the point where you abandoned your wells in Sections 2 and 3?

A. No sir; I am not able to determine it as a fact.

Q. You do know from the experience you have and the knowledge which you obtained in those oil fields that the Elk Hills are deep and expensive territory, do you not, that that is the fact? [1609]

A. Well, problaby that has been determined.

Q. Were you present on Section 30 when they brought in the 350-barrel well—the Associated Oil Company?

A. No sir; I was not.

Q. You don't pretend to know what the capacity of any of those wells is, do you?

A. No; but I would make a guess from the information that I have gathered—

Q. I am not asking for a guess.

A. I will state as a fact, the way you gather any information—

Q. You need not volunteer any hearsay information, because it is not responsive to my question. I am asking you if you know of your own knowledge?

A. No; I do not know of my own knowledge.

Mr. Lewers—And nobody else does.

A. No. He wouldn't let me say that.

Q. By Mr. Mills—You don't mean by your attitude, do you, Mr. Barlow, to incumber the record with observations not responsive to the question?

A. No, no. I don't mean to do that.

Q. You have no special interest in the Southern Pacific Company in this case, have you?

A. Not a particle in the world.

Q. Have you had any previous political affiliations with that company or its representatives which would embarrass you in any way?

A. My political record might speak for that. I may say that I got the first $400,000 appropriation for Los Angeles harbor against the worst fight that was ever made by the Southern Pacific Railroad in this state. So my affiliations were not particularly with the Southern Pacific Railroad. [1610]

Q. You were interviewed by representatives of

the government about a year ago, were you not?—By Mr. Gardner?

A. I can't tell. A great many men have come into our office. We don't know whether they are representatives of the government or who they are.

Q. And Mr. Gardner, a special agent of the general land office, approached you on or about a year ago as a prospective witness for the government in this case?

A. I can't remember.

Q. And stated to you that he was a representative of the government and my office?

A. I don't remember that. A great many men come into the office.

Q. Does your recollection go back clearly enough to remember that you told him then that you believed the Elk Hills are good oil territory, but that you didn't want to be mixed up in this case?

A. No, no. I made no such statement as that.

Q. That your relations with the railroad company were pleasant; that you had nothing against them or for them; and that you desired to keep out of this case? And that you privately entertained the opinion that the Elk Hills were good oil territory?

A. After I moved my rigs out of there?

Q. About a year ago?

A. No; I never told anybody after I moved out of there that I considered the Elk Hills was good territory.

Q. Will you state that you did not say that you

regarded the Elk Hills as good oil territory and did not want to be mixed up in this case?

A. No; I won't say that. I will say that I did not make a statement that I considered the Elk Hills good oil territory [**1611**] to anybody.

Q. And, for that reason, did you not ask Mr. Gardner not to subpoena you because you thought your relations with the Southern Pacific were pleasant and you didn't want to be mixed up in the case?

A. No; I don't think I made any such statement as that. I don't see why I should. I would just as soon tell what I know as to my opinion to the Southern Pacific as I would to the government of the United States.

Q. Are you still in partnership relations with Mr. Hill?

A. Yes sir.

Q. Mr. Hill testified in this case, and I think it was on April 16th of last year, at page 13 of the reporter's transcript. He was examined with reference to a certain map which accompanied one of your books published in 1904, as follows: "Q—Now, referring to sheet marked Range 21 East, 22 east and 30 south, 'McKittrick Oil Fields,' will you explain how that map was constructed by you? A—We have copies of all these separate townships, obtained at the land office in Visalia, giving the outline and the acreage and survey directions in our office. From this I compiled these maps myself, as far as the outline is concerned and the acreage. The other data on the maps was obtained, nearly all, by personal

visit. The other data consists principally in the location of oil wells or oil drilling rigs or abandoned wells. That is the data that I speak of as obtained by personal visit by myself through the fields, most of it." Is that correct?

Mr. Lewers—In all fairness I will say that in cross-examination Mr. Hill corrected the last part of it.

A. I think Mr. Hill will admit himself that I did most of the outside work.

Q. By Mr. Mills—Is Mr. Hill in error or is he correct?

A. I don't know that he is in error. He did some of it [**1612**] too. I will make the statement that I do most of the outside work of the office.

Q. I am speaking of 1904?

A. Yes; 1904 too. I always have done most of the outdoor work.

Q. What do you say about that statement? Is it correctly stated or incorrectly stated?

A. When we speak of ourselves we speak of the firm of Barlow & Hill. When he spoke of the gathering of information he was speaking of the work gathered by Barlow & Hill.

Q. He used the words "personal visit by myself".

A. He does a great deal of it.

Q. The question asked is, did he state the fact correctly according to your knowledge, or incorrectly?

Mr. Lewers—Objected to as an attempt to impeach the testimony of the witness Hill, a witness on behalf of the government; and, further, that counsel is un-

fair by not referring to the testimony of Mr. Hill on cross-examination.

Mr. Mills—I intend to take that up. There is no need for any excitement on your part.

A. I will make this statement: Any statement Mr. Hill made as a witness was absolutely true. I will make that statement for Mr. Hill.

Q. So, if he made that statement, it was absolutely true?

A. From his standpoint, yes sir; and I make the statement that I gathered most of the outside data, and I make it with the same emphasis that it is absolutely true from my standpoint. If you want to determine that factor, if you will call Mr. Hill he will tell you that is a fact.

Q. On cross-examination Mr. Lewers asked this question, at page 17 of the reporter's transcript: "Mr. Hill, was all of the printed matter in this book prepared by you? A—By me personally? [1613] Q—Yes. A—No. My partner attended to the advertisements. Q—Well, I am referring to that portion consisting of matter other than advertisements. A—That was prepared by me." Was that a correct statement of the fact?

A. No; that was not a correct statement of the fact absolutely.

Q. So Mr. Hill erred in that statement?

A. Yes sir. That is, not as to the drawing of the map, Mr. Hill drew all the maps.

Q. Mr. Hill was further interrogated as follows by Mr. Lewers: "Q—And was all of that prepared

by you as the result of personal investigation made by yourself, or was any of it based on reports made to you by other people? A—Why, a good deal of it was based on—the names of companies I got from superintendents, and such things as that. Of course, I didn't go and look at the corporation papers to find out. Q—Did you obtain any other material besides the names of companies from other individuals? A—Yes. I obtained some locations of the particular part of the property on which the well was located, from the superintendents. Q—Now, this purports to set forth locations on the ground, of various claims, or the owners of property on various portions of the territory. Did you in each and every instance verify that information yourself, or did you base any of those statements upon hearsay testimony? A—Most of them were from the parties themselves; but some of them necessarily must have been from hearsay, that is, from their neighbors. Q—Some you got from neighbors and the rest you got from the individuals themselves? A—That is, in regard to ownerships, principally. Some I got from the abstract office—ownerships." And on page 19: "A—I generally found the property and inquired who owned it. Q—Now, did you in each and every case go upon the section? A—Not every case? Q—In how many cases out of all of these that you have here [**1614**] (referring to the maps)? A—Only where there was development." Is that correct?

A. I should say that that was an absolutely correct statement.

Q. Further examination by Mr. Lewers at page 20: "Q—Then, this is not all based upon your personal visits to each and every claim? A—As far as these three maps are concerned— Q—I am not referring to the maps. A—I did. But in the Coalinga case I took most of that information from other parties." Is it true that Mr. Hill prepared from personal visits in the field the information which is contained in the maps?

A. I will make this statement; Mr. Hill when he made that statement was speaking of the information gathered by the firm.

Q. Mr. Hill, however, does not say that.

A. You can call Mr. Hill back and that is just what he will say.

Mr. Lewers—That is the way I understood it when he gave it.

A. When I said that I did most of the outside field work, it is a fact.

Q. By Mr. Mills—Mr. Hill has stated that you did most of the advertising work.

A. Yes; I did all the advertising work. And, if there is any question about that, I will be very glad to have Mr. Hill recalled on that proposition and asked that question.

Mr. Lewers—By the way, is Mr. Hill in town?

A. No; he left home last night. I would have given a quarter of a dollar to have him testify here tomorrow about this.

Q. By Mr. Mills—You didn't have an oppor-

tunity to read the testimony of Mr. Hill before you came on the stand?

A. No sir. In fact, I really didn't know that he testified.

Q. Now, you say you went in the Elk Hills in the spring of [**1615**] 1910.

A. I believe it was the spring of 1910.

Q. What month was it?

A. I can't determine that exactly.

Q. Can you approximate it?

A. I think it was in—the grass was green out there at the time we went out. It was some time in the spring.

Q. About April or May?

A. I should judge it was along about that time.

Q. Or June?

A. Or June; somewhere along there.

Q. You purchased from locators, I suppose, the rights which you claimed to operate on those lands, or did you locate them originally yourself?

A. No; we did not locate them originally ourselves.

Q. You were operating under claims which had been obtained by other locators?

A. Yes.

Q. When did you erect your first derrick? What month?

A. We erected derricks as quick as we could that spring.

Q. What month did you actually begin drilling operations?

A. I think we were drilling on the first well as early as May or June. That is just a matter of memory.

Q. You were in there subsequent to the order of withdrawal by the Secretary of the Interior of 1909?

A. Yes sir; and prior to the one of 1910.

Q. And every company which operated in that field upon locations previously made by others, and whose rigs went up in 1910, were operating subsequent to the order of withdrawal by the Secretary of the Interior?

A. September?

Q. 1909? [1616]

A. Yes. We never considered that a valid withdrawal order.

Q. And that validity and that order is about to be tested by the suits brought on behalf of the government against parties who have in defiance of that order gone upon the public domain for the purpose of extracting and mining minerals. Is that so?

A. Yes sir.

Q. So, that whatever oil you may have discovered at that time, Mr. Barlow, the title thereof might have been insecure by reason of that executive order of withdrawal?

A. I never considered it such, and the best legal advice we could get, such as Frank H. Short, never considered it such. In fact, we took the advice of Mr. Short on that proposition.

Q. And that order itself would have successfully

clouded any title which you could have had and which you might thereafter attempt to market?

A. Not in my judgment.

Q. Do you mean to say that you could have sold your land to exploiters or actual developers of oil land with the same ease as if that order had not been made?

A. Possibly not. But I would not have expended my own money if, in my opinion, the title would not have been good, if we made a discovery. Nor would I have asked my friends to put up theirs.

Q. Your withdrawal from that field was influenced somewhat, was it not, by your suspicion that you would be unable to acquire any valid or legal title to the land because of the executive order of withdrawal of September, 1909?

A. No sir.

Q. And the rigs of the Associated Oil Company were hauled onto the lands on 26, and 24, of 30-23, and on Section 30, of 30-24, just two days before the last order of withdrawal, was [**1617**] it not?

Mr. Lewers—To which I object as not cross-examination.

A. I can't tell you.

Q. By Mr. Mills—Don't you keep in touch with oil rigs when they are put up?

A. Not within twenty-four hours.

Q. Weren't your rigs there two days before the second order of withdrawal?

A. No sir; our rigs were on there and erected.

Q. How long before the second order of withdrawal?

A. I can't tell you how long, but they were up.

Q. Some advance notice was obtained by parties interested in exploiting the Elk Hills as petroleum-bearing fields, of the intention of the proper officers of the government to withdraw those lands from disposition for mineral purposes, to your knowledge, were they not, in and about Bakersfield?

A. I don't know that I had any information of any second withdrawal until it was made—legal withdrawal, I mean.

Q. You don't know of a single derrick there now in operation or recently closed down in the Elks Hills that was put up there before the first order of withdrawal, do you?

A. The 1909?

Q. Yes sir.

A. I couldn't tell you that off hand.

Q. Doesn't your general knowledge of the oil fields give you information on that subject?

A. Well, that is three years old. I can't remember that.

Q. You don't know of a single derrick that was up before the September withdrawal of 1909 in the Elk Hills?

A. I couldn't answer that.

Q. When was the first one put up in the Elk Hills to your knowledge? [**1618**]

A. I couldn't tell you that now.

Q. Can you approximate it?

A. No; I won't make an approximation.

Q. Do you think that Mr. Hill could tell?

A. You will have to ask Mr. Hill.

Q. So far as you know, neither member of the concern can now tell anything about that subject?

A. I can answer for Barlow. You will have to ask Hill.

Q. As a matter of fact, it is due, principally, isn't it, Mr. Barlow, to the fact that the information collected in the field that you publish to the world in your books is obtained largely by your partner, Mr. Hill?

A. No sir; it is not a fact. It is obtained by the firm of Barlow & Hill.

Q. Do you subscribe to the paper known as the California Oil World, published in Bakersfield?

A. Yes sir.

Q. Do you read the papers?

A. Sometimes, and sometimes not. Generally not, to tell the truth.

Q. Then you don't keep track of the information contained in the Oil World relating to the oil lands generally?

A. Sometimes; yes.

Q. Don't you know that the Oil World published a few weeks before July 2, 1910, contained articles relative to the possibility and probability of the last withdrawal order?

A. That might have been true. I can't say that it was. I do not doubt that it was true, for the reason that everybody considered the first one without any

force and effect, and they have expected them to make a legal withdrawal as authorized by Congress.

Q. Mr. Barlow, you testified day before yesterday against [1619] the government in the case of the United States versus D. B. Harris, involving the homestead entry in the southeast quarter of Section 4 of 11-23, S. B. M., did you not?

A. I believe that I did.

Q. How far distant are Sections 2 and 3 and 31-24 from Section 35 in 30-23?

Mr. Lewers—To which we object on the ground that it is not cross-examination. It is a matter of computation which counsel can do as well as anybody else. I suggest, Mr. Mills, that you take a map and measure it.

A. I haven't got those sections clear in my mind now.

Q. By Mr. Mills—35 is the nearest lands to Section 2 and 3 on which you operated—which are involved in this suit?

A. Is that 35 in the same township?

Q. No; 30-23. It would be the township cornering onto the northwest.

A. Well, it would be practically 6 miles, I should judge. It would be across all of 30-24 diagonally. About 6 or 7 miles.

Q. Your experience in Sections 2 and 3, which you described in 31-24, would have no bearing whatever on the oil-bearing character of Sections 15, 17, 19, 21, 23, 25, 27, 29, 33 and 35 or 30-23?

A. That is the township west—not in my judgment; no sir.

Q. The sections which I have described may be underlain with highly saturated oil-sands, and your experience there in Sections 2 and 3 would have no bearing toward the developing of that fact or anything in connection with it?

A. Not in my judgment as an operator.

Q. You don't pretend, now, Mr. Barlow, to say, from that experience or from anything that you know, that oil is not underlain, in the sections I have described, in large commercial [1620] quantities?

A. No sir; I don't know that it is not there.

Q. What is that?

A. I don't know that it is not there.

Q. You don't know that it is not there?

A. No sir. I don't believe anybody does know that it is there.

Q. You know that oil has been discovered in the even sections interspersed with those lands, don't you?

A. That don't necessarily prove that it is on the odd.

Q. No; but I say you know that fact.

A. I know that it is on 26 and 30. Those two are the only ones I know of my own absolute knowledge. I have seen it there.

Q. Now, you spoke of some fields that were turned down by geologists. Among them you mentioned the Kern River field.

A. Yes.

Q. What geologist turned down the Kern River field?

A. Well, I can't give you the names of them, but Mr. Blodget has told me —

Q. Now, Mr. Barlow, you are a lawyer yourself. I don't want any hearsay.

A. Well, but I know that is the general report.

Q. You don't know, of your own personal knowledge, do you, that any geologist turned that field down, except from hearsay?

A. Not from the names of them; no sir. Just from hearsay of the gentlemen who hired them to do the work.

Q. In other words, you have no personal knowledge on that subject at all, have you?

A. No sir; not direct from the geologist themselves. Just simply the men who hired them and paid the bills.

Q. Do you know, of your own personal knowledge, of any other field that was turned down by any competent geologist [**1621**] which afterwards proved to be a petroleum-bearing field?

A. I know, from my own experience, of anticlinals that have been marked out by geologists where I have drilled and failed to find oil, outside of the Elk Hills anticline.

Q. Now, will you read that question again and see if Mr. Barlow thinks that is responsive.

Mr. Lewers—I think it is perfectly responsive.

(Previous question read by the Special Examiner.)

A. Not of my own personal knowledge.

Q. Not of your own personal knowledge?

A. Yes.

Q. You have no definite personal knowledge whatever, now, have you, Mr. Barlow, of the petroleum-bearing character of the sections which I have described in Township 30-23?

A. No; I have no absolute knowledge of the petroleum character of those sectieons.

Q. And you have never made any geological reconnaissance or examination of those lands, to determine for yourself, even, have you?

A. I have looked over them from a practical operator's standpoint.

Q. And you don't pretend to any expert geological information or knowledge, do you?

A. Not a bit.

Mr. Mills—That is all.

REDIRECT EXAMINATION OF C. A. BARLOW.

By Mr. Lewers:

Q. Do you believe that the Elk Hills, the lands to which Mr. Mills has referred, have any petroleum character?

Mr. Mills—That is objected to as highly improper, inas-[**1622**]much as the witness has stated that he has had no experience or made any geological examination of the land for the purpose of discovering whether they bear petroleum or not; for the further reason that he says he is not a geologist.

Mr. Lewers—You may answer.

A. What is the question. (Question repeated by the Special Examiner.) As a practical oil man I would not drill on them.

Q. Is it possible, Mr. Barlow, in your opinion, basing your answer upon your practical experience in the oil business, for anybody to say that he knows there is oil land unless he finds it in the drill?

A. I don't think so.

Q. You were asked, Mr. Barlow, whether or not you had testified day before yesterday, I believe it was, in a proceeding which the government has brought against Mr. Harris.

A. Yes sir.

Q. Has that proceeding been concluded here?

A. I believe it was concluded very abruptly.

Q. Did the government introduce any testimony at all?

A. They didn't put in any geological testimony at all.

Mr. Lewers—That is all.

RECROSS - EXAMINATION OF C. A. BARLOW.

By Mr. Mills:

Q. Do I understand you to say that the government introduced no geological proofs whatever regarding that land?

A. No sir, not to my knowledge. We were down here prepared to—

Q. I am not asking whether you were prepared for anything; I am asking you whether you did that or didn't.

A. Well, not that I know of, sir. I was told by the at-[1623]torney that—

Q. Don't you know that the government introduced a classification, showing those lands as oil lands, by Arnold & Johnson?

A. I believe they did put in that report; yes. That don't determine them as oil land by a long ways. They had a geologist there to make some testimony, but they didn't come on the stand.

Q. Were the maps prepared by Barlow & Hill prior to 1904 calculated to portray the correct development of those oil fields?

A. As near as we could gather it, yes sir. We don't claim they were absolutely correct.

Q. And were they largely distributed to the public?

A. Yes sir; very largely.

Q. And sent to all parts of the country?

A. Yes sir.

Q. And do you keep in touch with parties who desire copies of your maps so that you know generally where they are distributed?

A. Well, I know that they are distributed through a great many selling agencies; but we have calls for them—used to have—from all over the world.

Q. And you have distributed them to several officers of the Southern Pacific Company from time to time?

A. They have bought maps from us, yes sir, as well as most everybody else.

Q. And they began purchasing maps from you from the time you began publishing them?

A. Yes sir; I presume that is so.

Mr. Mills—That is all.

REDIRECT EXAMINATION
OF
C. A. BARLOW.

By Mr. Lewers: [1624]

Q. Do you know whether any of those maps were furnished to representatives of the government?

A. How do you mean?

Q. To any field men or geologists for the government, in the nineteen hundreds?

A. I don't gather the question.

Q. What I mean is, do you know whether any of those maps were sent to any of the departments at Washington?

A. Yes sir.

Q. The United States Geological Survey?

A. Oh, yes sir, yes sir; all of them.

Mr. Lewers—That is all.

RECROSS-EXAMINATION
OF
C. A. BARLOW.

By Mr. Mills:

Q. Those maps ran in an edition as high as 2500 to 5000?

A. Yes sir.

Q. During those years?

A. Yes sir.

Q. Including the year 1904?

A. Yes sir. We always used to send them to some parties whom we were acquainted with in the Geological Bureau—Dr Holmes and several others. [1625]

HENRY A. GREENE, a witness called and sworn on behalf of the defendants, testified as follows:

DIRECT EXAMINATION.

I live in Los Angeles and am a partner in the firm of Greene and Hutchinson dealing in oil and agricultural lands. I have been in the oil business since 1901 in the Los Angeles, Newhall, Kern River and West Side fields and have been connected with producing properties in the Midway field.

My firm drilled a well in section 4 of township 31-24 in the Elk Hills. This well was started in the Fall of 1910 and drilled to a depth of 2600 feet. It was drilled with a standard rig. I was present quite frequently during the drilling operations. We found good formation and some gas and one dry oil-sand in this well. This dry oil-sand was a coarse sand with a good deal of quartz in it and absolutely dry. It showed oil stain and a little odor of oil. It was not asphaltum. It was found at a depth of about 1400 feet. We did not have any tests made to determine whether or not it contained petroleum.

I do not know of any indications of oil below the 1400 foot level but the man in charge of the drilling reported that he had some signs of oil just about the

time we quit, consisting of a stain in the mud. We ceased operations in that well in May, 1911, and I abandoned and wrecked the property. It is not our intention to do anything more there unless conditions change very much. We have got to see some real oil up there before we start up again. So far as that is concerned, we have lost all right to it. It was under locations that we were working it. We spent about $45,000 on this drilling.

CROSS-EXAMINATION
of
HENRY A. GREENE.

Our well was two or three miles away from the Hart [**1626**] wells. I have been all over the Elk Hills but have not made any particular study of that field as I am not a geologist.

We found gas in our well at a depth of four or five hundred feet. This dry oil sand I have referred to was about six feet in thickness. We found this dry oil sand at 1400 feet. At 2600 feet it was reported to me that there was a discovery or trace of oil in the mud. The latter indications was reported to me just about the time we stopped drilling and were pulling out and that really didn't mean anything.

The territory in the Elk Hills looked as though it was going to be exceedingly deep and almost impossible to drill.

E. L. BATTE, a witness called and sworn on behalf of the defendants, testified as follows:

DIRECT EXAMINATION.

At present I am living at 221 South Hill Street,

Los Angeles. I am an oil well driller and have been engaged in that business for the last 12 years. I acquired my experience in Texas where I worked in the Beaumont field. I came to California four years ago. I have drilled over most of the Midway field and at Coalinga and have been using the rotary system which I used in Texas. I have not had much experience with the standard rig.

I had charge of drilling the wells for the Hart Oil Company in sections 11 and 13 in township 31-23 in the Elk Hills. I took charge of this drilling when the well in section 13 was down 1300 feet and that in section 11 was down 1100 feet. I drilled the well in section 13 to a depth of 3650 feet and the well in section 11 to 2100 feet using a rotary drill in this work.

About the only formation we had all the way down was blue shale and the use of the hydraulic system naturally washed [**1627**] that formation and we kept a bucket on the discharge and washed the formation out to see whether there was any oil or not. After we had got to a depth of twenty-three or twenty-five hundred feet we put a T on top of the well and ran a pipe from that and put a tub under the discharge in order to catch the formation. We found no oil in this well. I am certain that we passed no oil in sinking this well or the one in section 11 as we could not do so without discovering them.

I say this because we were practical drillers and we watched the formation very closely and I do not think there was any question that we would have known if oil had been encountered. I was particu-

larly interested because I had an interest in the company myself as I owned $2700 worth of this stock. After we reached the depth I have mentioned, the operation of the wells was abandoned and a watchman was put in charge of the property. I understood since that time the casing has been pulled out of the wells.

I would not advise anybody to invest money in the territory surrounding the Hart wells with the expectation of finding oil.

I would not invest any more of my own money in any part of the Elk Hills because I have no confidence in that territory as an oil proposition.

CROSS-EXAMINATION
of
E. L. BATTE.

When I took charge of the Hart wells the one on 11 was down to 1100 feet and the one on 13 was down to 400 feet. I have no personal knowledge of what the well passed through before I took charge. I do not know whether they discovered gas in the well on section 11 before they reached the [**1628**] 1100 foot level or what oil sands were passed through in the other well on section 13 before they reached 1400 foot level. On these wells we worked a day and a night shift. I did not work on either shift. I was in charge of the wells. I worked there from June, 1910, to January 5, 1911, and was around there considerable. When I was not at the wells I would be on the lease or at Taft. When I was not present at the well I do not know

what the drill passed through or what formations were passed through or whether it passed through oil formations or not and there were times when I was visiting other wells when I was not at the wells on 11 and 13 at all. I do not know what the oil bearing formation or the actual geological formation is under section 15, township 30 South, Range 23 East, or of section 19 or of section 29 in the same township. As a common driller I don't know what difference it would make whether we put a "T" connecting the head of the well with a discharge pipe at the edge of the derrick where we were using a rotary although we did put one on the well in section 13 between twenty-three and twenty-five hundred feet because it made it handier to let the stuff run out into a tub although it did not facilitate any definite information with reference to the formation. I don't pretend to have any definite information of the geology or underground formations of any of the lands in Township 30 South, Range 23 East, so that whatever information I have about the wells on the property would have no bearing whatever upon the lands in this suit and as a driller I do not know what formation is below the drill and there might be the finest kind of petroleum bearing sand where we stopped and I not know it. I do not agree with Mr. John A. Pollard, who was on the stand before me, in his statement in the article which he wrote in the California Oil World on April 18, 1912, in which he stated: "In order to log a rotary well correctly a discharge pipe should be connected with the head of the well by means of a

"T" to the outside edge of the [1629] derrick. This is very seldom done by most of our drillers and the result is that if it is not done that the formation becomes mixed in the sluice box under the derrick so that the driller is unable to get correct samples."

I hardly think that many failures are made in this business through negligence. In other words, it does not make any difference whether a fellow is negligent or not, if he is lucky he gets oil.

REDIRECT EXAMINATION
of
E. L. BATTE.

I went to the well once since it was closed down and found that there is salt water in it now. The presence of this salt water influences my opinion of this territory because it has been my experience that oil is not found below the point where salt water is struck. Of course you could not tell but I would not think so. Of course I do not mean to generalize from my experience that no oil is found below salt water as it may be.

In drilling these wells we took more than usual precautions because they were prospect wells and the drillers as well as myself were stockholders in the company. [1630]

T. M. STORKE, a witness called and sworn on behalf of the defendants, testified as follows:

DIRECT EXAMINATION

My home is in Santa Barbara, California, where I

have lived for 36 years. I am a newspaper publisher and own the "Santa Barbara Independent."

I have been interested in the oil business and went to McKittrick for the first time in December, 1909. Several months after that I went into the Elk Hills, where I was interested as one of the organizers of the Scottish Oil Fields Limited, which operated on Section 20, 30-23.

This company was organized in the spring of 1910, and started active operations a few months later. The incorporators were mostly wealthy people who spend their winters in Santa Barbara.

After we started our operations, I spent a great part of my time in the Elk Hills, from the time we started in October, 1910, until November, 1911, when we ceased operations. There were three or four months of that time that we ceased operations. During this time I was in touch with the operations practically every day.

My company drilled a well in Sec. 20, 30-23, 4,005 feet deep. We used standard tools for 2200 feet and a rotary the rest of the way. I had charge of this work and the drilling was carried on under the advice of Mr. L. J. King, who was a superintendent of the Associated Oil Company in that territory. He was frequently on the ground where we were drilling—sometimes not more than once a week but at other times twice a day, depending on the importance of the work at the time.

After we started the use of the rotary we gathered the cuttings from the drilling all the time and took

samples twice a day, during the first period of the drilling, for the purpose of [1631] testing the formations and to see if there was any possibility of there being any oil. At other times we took samples every half hour. These samples were referred to Mr. King and to Mr. John Lang, who was superintendent of the Hill Crest Company, which company shared part of the expense of our drilling.

We did not find any oil whatever in this well and have abandoned it and it is not our intention to resume work. We have pulled out the casing and sold it. We sold the rotary and standard outfit used in drilling this well to Captain Barneson, Vice President and General Manager of the General Petroleum Company. We tried to sell him our rights in the ground but he said that he did not care for them as he did not think that that land was worth anything.

We arranged with Mr. King of the Associated Oil Company that he was to act in an advisory capacity in connection with our drilling, in return for 5,000 shares of stock which we agreed to take off his hands at $1.00 a share in the event oil in paying quantities came in. Outside of that he received nothing. He received daily reports from our head driller and employed our crew and in fact sent over employees from the Associated Company's property. In addition to this, the Associated Company lent us a great many tools and materials and we also used water that they had brought from the Buena Vista Lake, a distance of eight or twelve miles. We paid $200 a month, however, for this water.

I often made rounds with Mr. King in his daily visits to the different properties of the Associated Oil Company on sections 22, 24 and 26 in Township 30-23 and section 30 in Township 30-24, and was familiar with what was being done there by the Associated Oil Company. When we had reached a depth of 2200 feet in our well, with the standard tools, we were about to abandon the drilling but resumed it on account of the showing in the Associated Company's well on section 26, 30-23. Mr. King encouraged us to do this. When I first thought of interesting my [1632] friends in that field, Mr. King discouraged me and told me time and time again that he did not think there was a drop of oil in the Elk Hills and that he had so advised his own people but that they were going ahead contrary to his advice. Later on he became much more encouraged at the prospects.

We were also encouraged in going in there by Mr. Ralph Arnold's Bulletin No. 406, but I cannot say that that bulletin caused us to go in there. I also read a report that he made on Sec. 30, 30-23 for the Redlands Oil Company, which had a decided influence on my efforts to secure money to continue drilling.

The Scottish Oil Company abandoned its well on section 20 because we believed that there was no oil there. At this time I would not advise anybody to drill on that portion of the hill. I do not know anything about the rest of it. We spent nearly $73,000 in our development work in the Elk Hills.

We kept a log of this well showing the formations through which the drill passed.

During the time I was in the Elk Hills I have seen bands of 500 to 3,000 sheep in there in the late spring. I know that the soil is capable of growing agricultural products if water is put on it, because I have seen watermelons and tomatoes growing in the garden near John Lang's house on Section 28 of township 30-23.

CROSS-EXAMINATION

of

T. M. STORKE.

I think we began drilling on the 9th of November, 1910. At a depth of about 850 feet we struck some gas and at 1400 feet we struck a very heavy flow of gas. My recollection is that we were not bothered with gas at all until we got down to twelve or fourteen hundred feet. At that time the well was full of [1633] water and the gas threw the water out all over the derrick but this lasted just a few minutes as it was just a pocket of gas we struck. We never struck any showing of oil at all. I was there every minute of the time while the drilling was going on during the day and am certain that there was no oil struck. There were some false impressions as to there being oil in the formation due to the fact that one of the drillers threw a half pint of oil into the well to fool one of the teamsters. We struck considerable gas at 2600 feet and after that gas would break through every now and then, but the driller told me that he thought it all came from 2600 feet. It is impossible for me to say whether it came from that point or lower down.

None of our money was spent in purchasing a right to the land as we got this under a contract from the locators under which we were to drill wells upon a contingent interest.

We were guided very largely in our drilling operations by what Mr. King told us and we abandoned the well upon his advice. I do not think that this advice was given by him on account of the present litigation.

I am not posing as an oil operator or expert. Before I went over to take charge of the property in the Elk Hills I had no practical experience in the oil business except that in 1900 I had some experience in the McKittrick field and the North Midway. The operations of the Scottish Oil Company were not directed by any geologist. A man by the name of F. J. Burns located our wells for us. I don't know anything about the geological formations underlying section 16, Township 30 South, Range 23 East, or underlying any section. Our well was started in November, 1910, subsequent to the withdrawal order of 1909 and 1910 so if we had discovered oil in commercial and paying quantities before we pulled our tools from the well we were uncertain as to the validity of any title we might acquire from the Government and our operations [**1634**] might have been, so far as I know, a trespass upon the public domain.

I would not give 18 cents an acre for the whole of the Elk Hills for any purpose. If it had water on it it would be very valuable. I do not know what it is

worth for grazing purposes as I have never investigated, but I have seen sheep there in the late spring.

We got an artesian flow of water in our well and others might get the same thing. I believe there are many places in the Elk Hills that are capable of being used for agriculture if they had water.

The only oil that the drillers said that they got out of this well was what they put in themselves. There is naturally some that shows from the tool joints themselves, since as the pipes were being taken in and out the tool joints were greased, and went down into the hole and some of this grease found its way out.

REDIRECT EXAMINATION

of

T. M. STORKE.

The company offered a bonus to the drillers and to everyone there if oil was struck that would warrant us in putting down another well.

In addition to the tools that the Associated Oil Company lent us they also let us have 4050 feet of special drill pipe, without which it would have been necessary for us to have discontinued operations. We did not think that we were justified in buying this pipe and Mr. King volunteered to let us have it and finally did so after obtaining permission from his company. If we had not obtained this pipe we would have abandoned the well at a depth of 3500 feet. Mr. King told us that he wanted [1635] to know what we had in our well as his company thought that the formation was practically the same in our well as it was

in section 22 where they were drilling. His attitude toward us was very encouraging and during the last month or two of our operations he did everything to assist us to continue.

MRS. C. R. THOMPSON, a witness called and sworn on behalf of the defendants, testified as follows:

DIRECT EXAMINATION.

In July, 1912, I was living in San Mateo, California, and met Mr. Thomas Thomas J. Griffin for the first time there.

I went to Mr. Lewers' office in last July; I spoke about having met Mr. Griffin and went up there in regard to knowing Mr. Griffin; I had heard Mr. Thompson speak of him so much that I understood he was up there on some oil matters,—something to that effect.

Mr. Lewers took me over and asked me at the map if that was the section that Mr. Griffin was to testify to, and I told him that I did not know whether it was section 30-23 or not, and Mr. Lewers asked me to inquire of Mr. Griffin if that was the section; I met Mr. Griffin at the Goodfriend Hotel and asked him about the section; Mr. Griffin gave me the information about the land that was the section of land, and gave me some figures describing the land; it was something like 30-23, and I then returned to Mr. Lewers' office and told him.

Mr. Griffin had mentioned the fact that he was a witness for the Government when I met him at San Mateo; I cannot remember all the conversation that

took place; Mr. Thompson was present at the time; we had a general conversation in regard to the land which Mr. Griffin was subpoenaed up here for by the Government. Griffin told me that he was a Government witness and was going to testify; [**1636**] I remember that he mentioned the Elk Hills.

I do not remember the time of day when I first met Mr. Griffin; possibly in the afternoon. I was called up on the telephone, got up and dressed, and met Mr. Thompson and was introduced to Mr. Griffin; we went for a walk and stopped at the depot at San Mateo and the case was mentioned in a casual way.

CROSS EXAMINATION
of
MRS. C. R. THOMPSON.

When I am asked if Mr. Thomas J. Griffin ever sent me to Mr. Lewers' office to talk with him about his (Griffin's) evidence would be in this case, my answer is, absolutely not. That is the absolute truth and nothing but the truth. When I went to Mr. Griffin to find out about the numbers of the sections of land, Mr. Griffin did not know that I had been to Mr. Lewers' office.

C. R. THOMPSON, a witness called and sworn on behalf of the defendants, testified as follows:

DIRECT EXAMINATION.

I have known Mr. Griffin for four or five years, and first met him in Los Angeles; I remember Mr. Griffin being in San Francisco in July, 1912, for the purpose of testifying as a witness in this case for the

VOL. IV

TRANSCRIPT OF RECORD

SUPREME COURT OF THE UNITED STATES

October Term, [redacted]

No. [redacted] 178

THE UNITED STATES OF AMERICA, APPELLANT,

vs.

THE SOUTHERN PACIFIC COMPANY ET AL.

FILED AUGUST 2, [redacted]

(28671)

Government; I visited him at the Goodfriend Hotel in San Francisco, and he told me that he was a witness for the Government.

I went down to San Mateo with Griffin in the evening on the street car; when we reached San Mateo I telephoned Miss Hattie Clapp, now Mrs. Thompson; I met her at 418 South D. street, San Mateo, and introduced Griffin to her. Mr. Griffin, Miss Clapp and myself were in the depot at San Mateo for some time that [**1637**] evening, and he told her in my presence that he was a witness in this case.

B. T. DYER, a witness called and sworn on behalf of the defendants, testified as follows:

DIRECT EXAMINATION.

I am now living in San Francisco. Up to three months ago I was living in Bakersfield. I am the Field Manager for the Central Petroleum Company, which has an office in San Francisco. This company is operating in the Coalinga, Midway, Bellridge, Lost Hills, Maricopa, Santa Maria and Los Angeles fields. I am in charge of its operations in all of these except the Los Angeles field. This company is operating quite extensively and at present is running twenty-seven drilling rigs and has about 150 producing wells situated in these various fields.

I have been Field Manager of this company since it consolidated with the Esperanza Oil Company about a year ago. I held the same position with that company since about two years ago. I have been engaged in the oil business nearly six years and my

experience in that line has been confined to California. Prior to that time I was a miner in Alaska and Nevada.

I am acquainted with the Elk Hills and went in there first about four years ago, about a year before the rush into that territory occurred. My recollection is that this rush was in 1910. I went in there to see what they claimed was a seepage. I do not remember the township and range but this supposed seepage was about half way between Buena Vista Lake and McKittrick and was east of the wells later drilled by the Associated Oil [**1638**] Company in those hills. I went to this place with Mr. McReynolds, Julius Fried and a geologist by the name of Ochsner. We got some of the material from this supposed seepage and tested it and Mr. Ochsner reported to me that there was absolutely no oil in it and that it was vegetable matter.

I made no locations in the Elk Hills at that time and not until a considerable period later. Both Julius Fried and Mr. McReynolds were in the oil business and I do not think that they made any locations. My first locations there were made about the time of the first withdrawal order which was made on September 27, 1909. There were some locators in there prior to that time who wanted some financial assistance and they came to my associate, Mr. Leland, and myself. We went in with them on their locations and then made other locations ourselves. At that time I was not connected with the Esparanza or General Petroleum Oil Company.

We made these locations just as everybody else did, as a strictly speculative matter. We felt that if anybody should get a well there that we would go on with our work and would benefit by the other discovery. Everybody was going in. We followed along like a lot of sheep. Our locations were made during this rush.

After we made these locations we put up derricks and did other preliminary work costing us in all $40,000. Our locations were in sections 7, 8, 9 and 10 of township 31-24. Soon after we arranged with the Elk Hills Oil Company, which was really the Balfour-Guthrie Company, to drill part of this ground for a half interest and that company spent about $230,000 in drilling on this property. Other work was done on other portions of this land in that vicinity by the Hart Oil Company, Greene & Hutchinson and a man by the name of Carman. I don't remember the name of his company. Under their contracts with us these [**1639**] companies made written reports to Mr. Leland and myself and from these I know that the various companies I have mentioned spent in development work on these locations a total of $400,000.

I don't know what Mr. Carmen is doing in that territory now but I know that the other three companies are not operating.

The Esparanza Company had some land in there and I recommended to them that they abandon their property. I made this recommendation owing to the fact that our own development in there and that of our neighbors had not shown any oil. I was in touch

with the other operations going on in these Hills and therefore knew the results of other work there.

I was in the Elk Hills last about four or five months ago. At that time there was nothing going on there at all that I saw but I didn't get up as far as the Associated Oil Company's camp at that time. When I went in there with Mr. Fried and Mr. McReynolds there was no development work going on anywhere in the Hills for oil but I think there had been some trenches dug for gypsum. As I stated, this was about two years before the rush into the Elk Hills.

I still have my interest in these claims in the Elk Hills and have been unable to dispose of it although I have endeavored to do so. I really do not consider that it is an asset. I would not advise anyone to invest money in the Elk Hills at the present time with the hope of finding oil, because I would not want to see them lose their money.

Oil men who are actively engaged in the business do not, at this time, consider the Elk Hills to be oil land.

I have had experience in sinking wells that were located by geological experts and have depended upon them to some extent but not entirely. The General Petroleum Company now has two geologists in its employ. Mr. A. E. Preston, one of these [**1640**] geologists who is a college man, and who was employed as an expert geologist, has recently begun dressing tools for us in the field because he stated that he wanted to learn the oil business. I think he is doing the right thing. I know of instances where men who

were considered to be expert geologists have predicted the discovery of oil in different places at given depths and where the development following their advice has failed to reveal any oil although the wells had gone much deeper than originally planned. I also know of one instance in the Coalinga field where a large production of oil was obtained in the flats away from the Hills contrary to the advice not only of the geologists but of many oil men.

With the appliances that are now available a well may be drilled as an economical proposition to a depth of from 4,000 to 5,000 feet provided you have the best of luck. This might have been done five years ago but the risk would have been much greater than it is now because the material and appliances have improved. The primary difficulty in sinking to a great depth is the parting of the casing in the well owing to its extreme weight. A string of casing hanging from the top to a depth of 4500 to 5,000 feet is pretty heavy and tends to pull out the collars and to strip the threads. In sinking wells to that depth it is necessary to reduce the size of the casing as you go down. The number of times this becomes necessary depends of course on the character of the formation. The smallest ultimate diameter of pipe now being commonly used in the field is 3 inches although I have heard of special pipe smaller than that. This reduction in the diameter of the pipe as you go down naturally lessens the possible production of the well and makes it much more difficult to keep the well in shape after it is drilled. If anything goes wrong

in the well the small diameter of this casing makes it very difficult to do repair work. [1641]

CROSS-EXAMINATION
of
B. T. DYER.

Before I went into the oil business I was engaged in mining in Alaska and also in the hardware and trading business there.

I came to Coalinga five or six years ago. After I arrived there I started to get acquainted with the oil situation particularly with reference to land and that was my first experience in connection with the oil business. I later went to Bakersfield in the Kern River field and then to the Midway field. I can fix the time of going to Midway as being several months before the withdrawal order of September, 1909. While in the Midway I drilled a well in section 14 of the same township in which the town of Taft is situated. I did not do the drilling. I had charge of it. This well was not put down on the advice of any geologist. I put it down on my own advice without consulting a geologist with reference to the determination of the location of that hole, and afterwards sold the property.

I have always figured that a geologist has his place in advising the location of wells, although I do not depend entirely upon their advice but usually take the precaution of getting information from everyone who knows anything about the matter.

When I first went into the Elk Hills to look after

the supposed seepage I did not know that Mr. Ochsner was going with us, but we thought he would be able to give us some advice. We took a sample of the seepage. This material was black. I do not think it was an oil sand and I do not think that I have ever seen an out-cropping of an oil formation anywhere in the Elk Hills, although this looked like what you would call a seepage from an oil sand. Mr. Ochsner reported that this material had [1642] nothing to do with oil.

We burned some of this material while we were in the hills and tried to get an odor. The sample was then taken and tested with chloroform. I did not make this test myself, however.

I heard a report in the field that the Associated Oil Company had a well in section 30 of township 30-24 that was making four hundred barrels and although I visited the property while they were drilling I never saw any production. As soon as I got the report about this well I went out there to see it. I would regard a well of that kind as indicating oil territory. I would call that particular land there oil territory. At the time I went there they were down very deep and supposed to be in the oil sand. I remained there about half an hour but the drillers did not tell me how deep they were and I did not expect them to give me any definite information on the subject although I heard at that time that they were in the oil sand. The well must have been put on the pump or was supposed to be flowing because I got the

report in town that it was making five hundred barrels and I went right over there.

I do not think that the lands involved in this suit can be called oil land because I do not believe that oil can be obtained within a practicable working depth.

I am not able to say whether I have been up on each of the sections involved in this suit but I might have walked over them several times. I have only a general knowledge concerning them.

The examination I made of section 15 in Township 30 South, Range 23 East, was very slight. I don't think that I ever was on that particular section. It was a bird's eye view with me all the way through. I made a telescope examination from a long distance. I made the same examination with reference to sections 17, 19, 21, 23, 25, 27, 33 and 35 in Township 30 South, Range 23 [**1643**] East. I can't tell you on what sections, township and range the oil seepage which I visited with Mr. Fried and Mr. McReynolds and the geologist was located. I do not want it understood that I have any specific knowledge with reference to any of the lands that I have described. My knowledge is just general from having walked over the hills several times.

The only well I know of that was 5,000 feet deep five years ago was a well in the Santa Maria field.

There was no oil struck in the wells of the Elk Hills Oil Company in the Elk Hills but as I recollect it there was a slight showing of gas. One of these wells in section 7 of township 31-24 went to a depth of 3600

feet and possibly I observed this formation of gas in the log of this well.

When we made our locations in the Elk Hills and did our work we did not feel that our title was invalid because of the withdrawal order and were assured that the order was not valid.

It was shortly after the first order of withdrawal that we hustled lumber onto the lands we had located for the purpose of having it appear that we had commenced operations in order to avoid the effect of that order of withdrawal. Although we spent $40,000 on our locations this money was spent entirely in the erection of rigs as we never did any drilling. I think that the Associated Oil Company maintained a corps of geologists and that company is regarded as a large oil company in the oil fields of California. I understand that that company has a contest before the Land Office of the United States at Visalia seeking by every power to get title to several sections of land immediately interspersed with those to which my attention has been called. I believe that they have a contest against the applicants for patent by the gypsum and Fuller's earth locators. As I recollect it the Associated are attempting to maintain their title to these lands on the ground that they are essentially petroleum lands. [**1644**] I received reports from different companies, to wit: the Elk Hill Company, the Hart concern, the Green and Hutchinson and the Carmen. These reports were handed into me monthly and they showed the expenditure of $400,000. I wrote to these companies to find out what the cost of these

wells was and how much money they expended in the Elk Hills on different pieces and I sent it to Tom O'Donnell who was in Washington protesting against the order of withdrawal of July 2, 1910, so that he could use it for the purpose of influencing Congress respecting the order of withdrawal of July 2, 1910. These reports of these expenses, I do not think, included over head and office expenses.

REDIRECT EXAMINATION
of
B. T. DYER.

The only way in which oil men attempt to accurately determine whether land actually contains oil is by drilling. Oil men customarily based their determination of whether a territory contains oil or not before land has been drilled by walking over the surface. I did not base my conclusions concerning the Elk Hills merely upon such examinations as I made of their surface but was largely influenced by the development which has taken place there.

When I heard the rumor concerning this Associated well producing 400 barrels I went over there but I didn't see that oil. It is not at all unusual to get rumors of that kind and find when you run them down that very few of them materialize.

The executive withdrawal order to which Mr. Mills has referred had nothing to do with our conclusion that the Elk Hills were not oil lands. It was the probable withdrawal by a higher authority of all the oil from the hills that affected our conclusion. [1645]

CHARLES T. BURKS, a witness called and sworn on behalf of the defendants, testified as follows:

DIRECT EXAMINATION.

I live in Oakland, California, and have lived there for 22 years. I have been engaged in the oil business in California in the Midway field since the spring of 1900, and was connected with the Bay City Oil Company which drilled on section 22, T. 32-23. When I first went there we located about 1920 acres.

It took us some time to get our material to start in drilling as we had had to make roads and to find places to get water, but it was probably in July, 1900, before we started drilling. In March, 1901, we struck the first oil at a depth of a little less than 500 feet.

This was the first well to produce oil in that territory. The nearest wells to us while we were boring were at McKittrick and at Sunset. After we had started our well, there was a well started on section 2, six or seven miles northwest of where I was drilling and another was started by E. J. Bost on section 23 of the same township where my well was situated. Oil was struck in this well after the time we found oil in our well. There had been no other discoveries there in the meantime.

The well I have referred to in section 2 was drilled by a company the name of which I do not remember. My recollection is that it was drilled to a depth of about 1100 feet but no oil was struck, so far as I know. It was six or seven miles northwest of my well.

I remained there continuously after we started this well until the latter part of the summer of 1902. During this time I was familiar with the drilling going on in that country. It was within the immediate vicinity of our camp, directly east of us and on section 8 to the north and west of us, and the Oregon Midway Company was drilling in section 4 of the same [**1646**] township, and that was about all of the drilling that was going on at that time in the Midway.

Between that and McKittrick the only drilling was in this well on section 2, that I have referred to, to the northwest of us, and section 8 Southeast of 2. There were some wells at McKittrick which had been drilled before we went into the field near the town, and development was beginning to extend two or three miles northwest of McKittrick at that time.

Southeast of the Midway toward Sunset there was no drilling going on at that time until you reached Sunset, with the exception of one well that was started on section 30 south of our well, but I do not know of any oil being discovered in that well.

I was in touch with the other oil operators at that time on the West Side and knew of the range of hills now called the Elk Hills, lying to the north of the Midway. We did not consider them to be oil land at that time. I do not call to mind any intimation or feeling that these hills were really in the oil belt. We always thought that the oil lay up next to the foothills of the Temblor or main range of hills between McKittrick and Sunset.

During this time I was on the westerly side of the

Elk Hills a number of times but I do not think I ever went to the north side or east side of them. I looked for indications of oil on the west side but never found any.

After I left the Midway field in 1902, I returned there in 1907 to Sec. 22 in the Midway, where I had started drilling originally. At that time no particular change had taken place in the location of the development in that vicinity, but soon after that more drilling started and extended along over 25 Hill beyond, and three more wells were started on section 22 where my well was. [**1647**]

In 1907, the tendency was still to keep near the foot of the hills.

I do not know of any work going on in the Elk Hills at that time and in 1907 we did not think that there was any oil over there. I remained there nearly two years at that time, and during that period I do not know of anybody who considered the Elk Hills to be oil land.

I left that country before 1910, but in 1908 there were some indications of people beginning to locate land all over the country. I have not returned to the fields since 1908 and am not familiar with the present conditions in the Elk Hills. I do not remember any definite conversation with any one concerning the Elk Hills but we often talked in a general way with regard to all of that country. Oil men talked about localities of different wells or of places where people were making locations. In all of these general con-

versations I never heard any practical oil man discuss the Elk Hills as even possible oil territory.

CROSS-EXAMINATION
of
CHARLES T. BURKS.

By Mr. Mills:

Q. You went into the Midway in the year 1900?

A. 1900, yes sir.

Q. And you stayed there until sometime in 1902? Is that right?

A. Yes sir.

Q. And brought in a well there on Section 22?

A. Yes sir.

Q. Of 32 - 23?

A. 32 -23. [1648]

Q. Now, you say the nearest well at that date was the McKittrick wells and the wells at the Sunset district, excepting a well on Section 8, in 31 - 22, would not that be, of Section 2 of 31 - 22?

A. I think it was 31 -22. I know it was six or seven miles north and west of our camp.

Q. Yes; a little better than seven or eight miles, isn't it?

A. On a direct line I should judge it was about six or seven miles.

Q. And a well on Section 23 of the same township that you were in?

A. Yes sir; right near by us.

Q. Now, the nearest well to the southeast was at Sunset?

A. Yes sir.

Q. That was on the date that you left the Midway field?

A. That is the date I went in the field and began boring.

Q. I am speaking of the time you left the field. What was there in 1902 when you left the field?

A. 1902?

Q. Yes.

A. There was this well of ours on 22, and a second well I put down on 22; and on the northwest quarter of 22 there was another well; then the Boust well on 22—I mean 23; then over on Section 25, or 25 Hill, there was one, two or three wells that had been started. They were not completed.

Q. Is that all that you recall now of 1902?

A. And I think there was another well started on, I think it is the southwest corner of Section — or, rather, it is about two miles, probably, from our camp, west and a little north. I think it was the Internos. I think on Section 24, [1649] if I call to mind, there was another well had been started.

Q. What township?

A. That is in 32 -23, right near 25 Hill. In fact, it is part of the same locality. That is about all I call to mind now.

Q. Yes. Now, during the time you were down there drilling that well, you were over near the Elk Hills, you say, on the west end of them?

A. Yes sir.

Q. Was that on your road going over to Bakersfield at that time?

A. Sometimes I went the north road, that is, going north of the lake.

Q. That is, going around the Buena Vista Hills and down the Elkhorn Valley and out the West Side?

A. Yes.

Q. Now, was that the occasions you speak of going in there to the West Side?

A. No sir. I have gone in there on special trips.

Q. Yes. And you say you were looking for indications?

A. Indications, yes.

Q. You mean indications for oil?

A. To see if there was anything.

Q. Now, I say, do you mean indications for oil?

A. Yes sir.

Q. What do you regard as a good and conclusive indication of oil, Mr. Burks?

A. Well, it is pretty hard to make that definite. I would want to see a pretty good ledge of dry sand.

Q. Yes.

A. And that is about really the only good conditions I would go on.

Q. A ledge of dry sand? [1650]

A. A good ledge of dry sand.

Q. Well, suppose I would go out here and find you a nice ledge of dry sand near this golf course. Would you regard that as sufficient evidence of petroleum lands to make an investment?

A. I don't think so.

Q. Well, isn't there anything else you would want besides a nice dry ledge of sand?

A. Yes; I would want a general character and indication of the country.

Q. Would you look for any oil seepages or any indications of waste of oil at all?

A. Yes; that would be still a better indication.

Q. You would regard that as a little better than the dry ledge?

A. In connection with the sand.

Q. There were some oil seepages, were there not, along to the west and north on the east flank of the Temblor Range from your property on 22, that is, along the flank of the range back of you to the west?

A. What do you refer to as the Temblor Range?

Q. I mean the mountains to the west of where you were, the main range.

A. Yes. Yes, there were very few, though, even along there.

Q. Did you ever see these oil seepages?

A. Some of them.

Q. And did you regard those as good indications of oil?

A. Yes; they were indications.

Q. And did you place your well down on Section 2, where the formation dips off into the flat from the main range of mountains, because of those oil seepages?

A We did, in that direction of the valley, in locating the well. [1651]

Q You had reference, then, to that indication of oil?

A. Yes.

Q Known as the oil seepage?

A Well, it was not an oil seepage. We had no oil seepage there. It was a ledge of dry sand.

Q Did it show any discoloration made by oil?

A Yes, sir; it showed dark colors.

Q Showed as though it had been a former waste, a natural waste of oil in former times?

A That was the indication.

Q And that was the reason you located your well off there the east of that?

A Yes sir.

Q And you found oil?

A Yes sir.

Q And fulfilled your expectation?

A Yes sir.

Most usually oil men generally, at that date, in making locations for wells, referred to such conspicuous physical evidences as dry ledges of sand which were discolored by waste of oil. I remember that there was a little showing in the gulch to the South and East of where we had our wells located in 22 cropping out near the corner of sections 23 and 24, and 25 and 26 at a common corner. There was also a little bit of a showing to the West of us on the range. There was also some cropping at that time on section 35, Township 31 South, Range 22 East, which would be about five or six miles along the range Northwest of us. These croppings strung along from

one section to another in a general way off towards McKittrick and along the Eastern flank of the range and they were pretty well known to the oil men, who were wise to their business there at that time. I never saw the cropping of oil sand or the gas blow out in section 32 in the Western part of the Elk Hills as that occurred after I left the field but I read a good deal [**1652**] about it in the newspapers as there was considerable publicity about it and it was generally discussed by oil men. This was only a couple of years ago. I never attempted to make any detailed examination of the Elk Hills. When I came back to the Midway and the West side fields in 1907 there had been a little work going on on 25 Hill and on the Spellacy claims they had perhaps put down a couple of new wells. That is all that I can call to mind that had gone on there in five years. When I left in 1902 I don't suppose there were over eight or ten wells from McKittrick to Sunset and when I left in 1907 there were but two or three new wells. Of course I am only testifying from my memory. I never went over the country and counted the wells. I am only depending on rather a vague recollection. I went over into the Elk Hills in 1907 to see what I could discover. I went in the same casual way that I did in 1902. I didn't take a geologist with me. I just merely went for my own satisfaction. I don't pretend to any scientific or geological information of the oil country on the West side. I was in there as an operator to sink a well and to get information from the best sources I could. I have never consulted any

geologist about the Elk Hills. I possibly would look for some geological advice before I would invest any money in the Elk Hills. Of course if the appearance, to my mind, was satisfactory, I might not seek information from a geologist and if the indications suited my mind I would spend money to the extent of fifty or sixty thousand dollars in unproven territory without any geological advice. I never read any geological bulletin on that West side field before I went there. In fact, I don't recall that I ever read one.

RE-DIRECT EXAMINATION
of
CHARLES T. BURKS.

The well I sunk on section 22, Township 32 South, Range [1653] 23 East, was not located on the advice of a geologist and we struck oil there. I had no occasion when I went back in 1907 to count the number of wells in that territory. I did not go back for the specific purpose of making any general observation of the number of wells there and what information I now give is just my recollection of it.

L. E. DOAN, a witness called and sworn on behalf of the defendants, testified as follows:

DIRECT EXAMINATION.

I live in Oakland, California, and have lived there for the last three years. I am engaged in the oil business and at the present time am engaged in acquiring oil land for the North American Oil Consolidated Company. My duties take me into almost all of the

oil fields in the State. This company at present has about 1,000 acres in the Midway field upon which they have 110 wells with a production of between five and six thousand barrels a day. I have been connected with this company for about six months, and prior to that time was operating on my own account, since 1900. I operated in the Kern River, Sunset, Maricopa, Midway, Coalinga and Bellridge fields. My first wells were in the Kern River field.

I have a general idea of the Elk Hills. I went there first, I think, in 1901 or 1902, when I was operating at Sunset. At that time I made a number of trips through the Midway, Buena Vista and Elk Hills, just looking over the country in general. In 1901 or 1902, I made a trip there in behalf of Mr. Winfield Davis of San Francisco, who was then drilling in the Kern River field. A proposition had been made to him to drill a well in the Elk Hills by N. C. Farnum, who was at that time associated with Jewett & Blodget. They had located a number of sections of land in that country and Mr. Farnum made me a proposition [**1654**] that if we would drill a well there they would give us two sections of land. I first went over there to investigate the country myself and afterwards took Mr. Davis and Mr. George Cameron and some others into the Elk Hills to see a seepage that Mr. Farnum had told us about. He said that there was a cropping of oil sand there that was reeking with oil. We had not been able to find it so he came along to show us. We examined the sand which

he pointed out and came to the conclusion that it was a vegetable stain of some kind. There was a discoloration in the ground there but we could not find evidence of any seepage of oil. He told us that this was the place he had referred to as reeking with oil.

At that time we spent about a day looking over different places in the vicinity and on the strength of what we had seen before and on what we observed that day we rejected Mr. Farnum's proposition because we concluded that there were not sufficient indications to warrant the expense of drilling a well. I had already concluded that if there was any oil in that land it would be very deep. The general dip in that country is to the southeast. The croppings are all back on the west side of the Midway field and the farther you get towards the valley the deeper the territory, and I therefore concluded that the Elk Hills would be very deep.

I have been in that country more or less ever since the time I went in there and in general way have kept in touch with all of the development there. Prior to 1905, in the McKittrick district proper, there was a great deal of development going on but outside of that district there was very liltte. The McKittrick development was just back of the town and followed the outcroppings to the northwest. There was very little development south of or east of the town.

Down toward Sunset there was not a great deal of [1655] development. Quite a number of wells had started in the Midway district right along the out-

crop of the eastern slope of the Temblor Range. They extended a very little way into the flat.

I was familiar with the general impression amongst oil men in that country at that time as to where the oil was. The general belief was that it lay close to the outcrop along the Temblor Range along the west side of the valley. The general impression as to the Elk Hills at that time was that there was no oil there or if there was any it was very deep, and with the methods of drilling in vogue at that time nobody thought it would be profitable to go out into that country at all. Very few wells had been drilled at that time in that field deeper than twelve or thirteen hundred feet. Some had gone deeper but at a great expense and everybody thought that a 1200 foot well was very deep.

There was very little development in the Elk Hills until after the strike in the Honolulu well on Sec. 10 in the Buena Vista Hills along about February 1910. As the result of this, there was quite an excitement in the Buena Vista Hills and lands were located all over the valley east of the Buena Vista Hills and into the Elk Hills. At that time I went into the Elk Hills as I had an opportunity of locating a lot of land in there with a number of friends of mine, but I turned it down as I did not think it worth while.

I always figured it was too deep to be profitable, and there were so many chances in the oil business anyhow, so many hazards, that I thought it was too hazardous to attempt it.

I knew that there was a lot of locating going on over there, and a great many people had put up rigs and started to drill. A great many rigs were sent in there. Millions of dollars have been spent in there, I suppose, and a great many wells drilled down to quite a great depth. But I never have heard of anybody getting any oil to amount to anything. [**1656**]

I do not think that the Elk Hills is oil territory in the sense that it can be worked at a profit. A well 4,000 feet deep is not a profitable venture for any man unless it turns out to be a tremendously big well. By a big well I mean a gusher with an enormous depth of sand, and all that sort of thing, plenty of reserve to keep the well alive for a long time. Even the wells in the Buena Vista Hills, in the Midway, that came in at a thousand barrels a day, it is questionable in my mind whether they will ever pay. The life of a well is short, the gas pressure is soon exhausted and the production drops off so fast, and where a man has to pay a big price for the land, it is questionable in my mind whether it is profitable, whether they will ever get their money out of it.

CROSS-EXAMINATION
of
L. E. DOAN.

I went to Bakersfield first in 1900 or 1901. I am an attorney at law and started in to practice there, at that time forming a partnership with a firm of attorneys who represented the Southern Pacific Company. I continued with this firm until about 1903, but I had

very little to do with the actual practice of law, devoting my attention almost entirely to the oil business.

I have had no experience in the actual work of drilling of wells but have superintended that operation and have been interested in companies that drilled wells in different places. I don't claim to be a geologist in any sense of the word and my connection with the oil business has mostly been in the buying and selling of oil lands.

The places Farnum took us to in the Elk Hills was down in a canyon on the east side of the hills where there was a black discoloration. He said that you could squeeze oil out with your hand. There was an excavation in this deposit and I attempted to [1657] squeeze some of the oil out of the material but did not succeed. We looked at it and tested it but could not get a sign of oil.

The area that was discolored on the side of the hill, I suppose, would cover an acre. I know for a couple of miles South of McKittrick there are fine out-croppings. They lie between the Temblor range and the Elk Hills. I don't know how far these outcroppings run between the Elk Hills as I never really traced them all the way down as I have always depended more on what I have been told by men that were familiar with the district than on my own examination. I have consulted a good many oil men in regard to these things and this is true with reference to the opinion I have expressed with reference to the Elk

Hills. I have been over the Buena Vista Hills many times and I find that there are more outcroppings there than there are in the Elk Hills. I never found any of these outcroppings between the Buena Vista Hills and the Temblor range and I never found any of these outcroppings in the flat although I know that some have been found. We are on an outcropping on the West side in sections 26, 22, 16 and 15 in Township 30 South, Range 23 East. It extends three miles practically right on the outcrop there. I am familiar with sections 14 and 12 in the same township and 6 and 23 in township 31 South, Range 23 East. None of these outcroppings are on section 12 which is on the Western flank of the Buena Vista Hills, or in sections 14 or 32 in township 31 South, range 24 East but oil has been found in all of these sections. It was some years ago in the year 1902 that Mr. Farnum took us to this outcropping or seepage. I never visited the properties of the Associated Oil Company in the Elk Hills. I know where the wells are located but on none of the trips that I took through there was I ever on any of these properties. I know they discovered a little oil there though I don't know on what section and I never attempted to go out there and make any investigation on the ground. I do not [**1658**] know how far that seepage that Farnum showed us was from the Associated wells. My idea of the Associated wells is that they are on the Western slope of the Elk Hills up towards the North end. I do not think that they are as near

the crest as this seepage that Farnum showed me. I think they were West of that seepage. That is my idea, of course I don't know. As I said, I have been in the Elk Hills only to pass through there. I passed over the Elk Hills two or three times in going to Midway but I never have been there since the rigs were put up, since they started to drill there, and my investigations were all made prior to the putting up of any rigs or any drilling in the Elk Hills. That is a number of years ago, a way back in 1902, '3 or '4. As I stated, I would never advise persons to invest money in the Elk Hills with the intention of making it an oil property because of three reasons, to wit: the depth and the cost of the land and because I have consulted with well known oil men who are familiar with the Associated wells and they have advised me that they are not profitable. One of these men was Dr. E. A. Stark, geologist of the Standard Oil Company. I have also talked with Mr. Scribner, who is connected with the Associated Oil Company, but you can't get very much satisfaction out of him but the impression that I gathered from him was that he was not fully satisfied with the wells; didn't think that they had very much there. I consulted with Mr. Scribner because I wanted to find out about the Elk Hills with the intention, if they brought in a big well, I might be induced to go over there and if they had brought in a big gusher in the Elk Hills I certainly would have gone over there. I merely got the impression from Mr. Scribner that they did not have very much of a well, that they got a little showing that was

not satisfactory. That was merely an impression. I don't say that he said it in so many words but that is the impression I got from talking with him. He was always very closed mouthed about the business of the [1659] Associated Oil Company and in these discussions with him he never told me about the particular work that the Associated had been doing on these wells. He never told me that in one of the wells of the Elk Hills they had perforated the casing for a thousand feet and found oil sand for the whole depth. He did not tell me that one of their wells had been put on a pump and flowed from three hundred and fifty to five hundred barrels a day. I had heard all kinds of stories and I was trying to verify them and I came to the conclusion that they didn't have very much of a well there. I may be wrong about it but I gathered the impression that they had considerable sand in the Associated wells and but very little gas pressure and that it wouldn't be profitable to pump the wells at that depth. Mr. Scribner never told me that he did or he did not have a well over there producing two or three hundred barrels a day and I never went out there myself to find out.

L. B. McMURTRY, a witness called and sworn on behalf of the defendants, testified as follows:

DIRECT EXAMINATION.

I live in San Francisco and have an office in the Mills Building. I am now engaged in the oil and mining business and have been for about 13 years. At present I am connected with two oil companies. I

have been interested in the Midway field in Kern County and the San Benito field in San Benito County. I went to the Midway in September, 1900, and went first into sections 4, 5, 7, 8, 9, 10 and 14 of township 32-23. We were also interested in section 30 of township 32-24. Later I became interested in some land in township 31-23.

We drilled a well in section 30 of township 32-24 to a depth of about 1500 feet and struck oil. This was the first well we drilled in that territory and was the first oil struck in the Midway field. I know a well that was drilled by Charles T. Burks [**1660**] which was the first production well brought in in that field as ours never was a producer.

We also put wells down on Sections 4, 5, 7 and 8 which were started in 1900 but some of them were never finished owing to drilling difficulties.

At that time, with the exception of the Burks well, the nearest wells were at Sunset and McKittrick and there was nothing in between.

The general impression of people at that time was that there was no oil south of that little range of hills south of McKittrick and that there was nothing north of the range of hills coming in just north of Sunset and that the oil zone was along the main range on the west side of what you might call the Midway field.

As far as I know the Elk Hills were not considered to be oil lands at that time. I went into a portion of these hills about 1900 in company with I. T. Bell of Visalia to look at a lot of land that had been located

there by a man by the name of Brown who was superintendent for Miller & Lux at the old Headquarters ranch. As a result of our examination we did not consider it to be oil land.

In this trip we drove around by the Lake on the southeast side of the Elk Hills and then over the Miller & Lux headquarters ranch. The following day we went over a portion of the foothills and then drove back around on the other side of the Elk Hills.

From the time I went into the Midway in 1900 I have been back and forth quite frequently between the field and San Francisco. I remained in the field from the time I went there until October, 1903. During this time I was in touch with the general development that was going on in the West Side and as far as I know oil men in general did not consider the Elk Hills to be oil land during [**1661**] that time. I left in 1903 and did not return until 1906. I was in the field a portion of 1906 and 1907 and returned there again in September, 1908, and remained until about the end of 1910.

When I returned there in 1906 very little, if any, change had taken place in the extent of the territory that was drilled in the Midway over what had existed when I left in 1903. There had been some development on what is known as 25 Hill. Between the Midway and McKittrick I saw a derrick on section 11 of township 31-22 which I think belonged to the 1901 Oil Company. The development at McKittrick had begun further northwest along that line. There was no development, however, in the Elk Hills that I

know of and I never heard them referred to at that time as being oil land.

In the latter part of 1908 a rush began in the Elk Hills. I know this because I was there although I did not join in the rush because I did not consider that was oil land.

I do not think that the well drilled half a mile from another well will necessarily strike the same formation as the first well drilled. In the Midway field I have observed variation. For instance, wells in section 32 of township 31-23 that have been put down approximately the same depth on the eastern and western portions of the section have varied in production from 50 barrels a day on the West Side to 150 or 200 barrels a day or even 5,000 or 7,000 barrels a day on the eastern portion of the section, but I don't know of any well that has been perfectly dry that has been put down to the required depth in the immediate vicinity in the Midway and I do not know of any well in the Midway within a few miles of the place that I have been referring to, towit: section 32, that was absolutely dry but I have known wells that did not produce enough to pay. [1662]

CROSS-EXAMINATION
of
L. B. McMURTRY.

Before I went into the oil and mining business I was a railroad conductor on the Southern Pacific and later on the Northern Pacific Railroad. I was continuously in the railroad business from 1879 until

1890. I was a police officer in San Francisco from 1890 to 1895 at which time I went into the mining business in Humboldt County, Nevada. I had mining interests in various places in California later and finally went into the oil business in 1899.

At the time I went into the Elk Hills first my stock of information concerning the oil business was not very extensive. I probably stood in about the same position as any other oil man in California at that time. I had had the benefit of the advice of Mr. C. W. Fox who was a practical oil man and had gained his experience in the West Virginia and Pennsylvania fields and who I considered to be a good oil man. He had taken me through the San Benito field and had pointed out oil formations and indications and explained the different characters of sand and that sort of thing so I had some experience before I went into the Midway field and I also went over the Midway field with him.

In this trip into the Elk Hills I was looking for oil formations or an oil sand. I did not see very much of the Elk Hills as our trip was confined to the southeastern edge of the hills. We crossed the hills pretty well up to the Lake, however, on account of the depth of the canyons down near the Lake. I cannot tell you what sections in the Elk Hills we were in on that trip.

There are croppings extending from section 27 in Township 31 South, 22 East, through section 35 in the same township and through section 2 in township 32 South, 22 East, down into section [**1663**] 18 of 32-23 along the Easterly flank of the Temblor Range and

the dip of the formation is towards the valley generally and in my opinion in 1900 that would indicate that the land towards the valley was underlaid with the same formation and that if there was any persistency or uniformity in the formation you could calculate correctly the angle or dip in which it was plunging and you would be justified in sinking a well over in the valley and expect to reach that formation and you would expect to find it impregnated with oil. That was the belief I entertained in 1900 and we put in four strings of tools there at that time and so my opinion must have been good that it was an oil field. Besides, there were others who entertained that same opinion in 1900 who were successful in the discovery of oil. I never went over the Elk Hills enough to form an opinion. I have driven around there but I have never been over them with the exception of the time I stated and that trip, of course, was over only a small portion of the hills. Since that time I have never been in the Elk Hills at all and I have no definite information which would enlighten the court as to the character of the formation for mineral contents in the South half of the township known as 30 South, 23 East, and it is possible, so far as I know, that the lands known as sections 15, 17, 19, 21, 23, 25, 27, 29, 33 and 35 of Township 30 South, Range 23 East, which would be the South half of the township which I have referred to, are underlaid with petroleum deposits under each section. It is possible that where several wells are on the same section that the difference in production from the various wells

may be due to drilling troubles and the wells sanding up before being completed. When I speak of oil land I mean of land that will produce oil in paying quantities and when I speak of producing oil in paying quantities, that always depends on the condition. For instance, in some localities a well might pay that was producing but ten barrels a day and others wouldn't pay if producing less than a [1664] hundred. You have got to depend on circumstances surrounding the matter, such as transportation, the expenses of drilling and depth and the expenses of handling the well. I would expect a well to be at least a hundred barrels to be a paying well in some localities and ten barrels in others. Then the price of the oil is a determinative factor and it would not pay to sink a well anywhere in the Midway field if oil was down to a few cents. I remember in 1901 that oil was down to fifteen cents a barrel and there was no market and no transportation and the oil industry certainly fell off considerably at that time. So, whenever I use the term oil land in expressing an opinion upon any territory I use the term with reference to land which produces oil in paying quantities.

When an oil sand cropping is found we make calculations as to how deep it may be found at a certain distance from the outcrop and base these on the angle of the dip. These calculations are not accurate, however, from the fact that we cannot tell how far your formation is going to dip as it may get deeper or come up toward the surface. If we assume for the sake of the question that an oil sand is persistent for ten or

twenty miles in all directions and that it is laid down uniformly in extent and thickness and contains oil, I would expect to find oil by sinking a well to that formation anywhere in the field.

It has been demonstrated in section 32 of township 31-23 to which I referred on direct examination, that wells within half a mile of other wells in that section showed a great difference in the quantity of oil produced. This may have been due to drilling troubles but there are probably 16 wells in that section that are very small producers and at the same depth where oil has been found in other portions of the section the oil sand in these wells is apparently dry or shows a very little oil.

The wells drilled in the West Side field kept pretty close to the hills until 1908. [1665]

REDIRECT EXAMINATION
of
L. B. McMURTRY.

I do not know of any place in the oil fields where there is a bed of sand of uniform depth or laid down and deposited in uniform thickness over an area of fifteen or twenty miles. When we began operations in 1900 and 1901 I would not have felt justified in going twelve or even five miles from the outcrop with the expectation of getting oil and I do not think that any of the oil men at that time would have done so.

At the present time I would hesitate to go that distance into an undeveloped territory. I might commence near the outcrop or within a reasonable distance of it and feel my way out gradually but I would

never go out that far to start in.

I do not think that the variation in the character of the wells on section 32 in the Midway of which I have spoken, has been due to drilling difficulties but on the contrary I think it has been due to the character of the sand itself. This variation is not shown by the surface formation.

Although it is possible that there is oil in the Elk Hills underneath the lands involved in this suit, I do not think it is probable. I do not think oil can be produced there in paying quantities.

L. W. KAY, a witness called and sworn on behalf of the defendants, testified as follows:

DIRECT EXAMINATION.

I live in San Anselmo, Marin County, California and have an office in the Mills Building in San Francisco. I am now engaged in the gold mining business in Calaveras County, California. [**1666**] I have been engaged in the oil business in which I started in the Midway field in 1900 when I was associated with Mr. McMurtry who has testified in this case.

I was a stockholder in the company that did this drilling in the Midway field and was its Field Superintendent. Prior to that time I had not had any experience in the oil business but had been mining since 1870. For a time I was sheriff of Tulare County to which position I was elected first in 1899. While I was sheriff I assisted in the capture of Sontag and Evans.

I remained constantly in the Midway field from the time I went there in 1900 until August or September,

1901, superintending the drilling operations of the Oregon-Midway Oil Company with which I was connected. I did not return there until 1908.

While I was in the Midway from 1900 to the Fall of 1901 I was at McKittrick, Maricopa and Bakersfield and was familiar with the drilling that was going on in the West Side field. I went to McKittrick every few days.

At that time the general impression amongst the oil men with whom I came in contact was that the oil territory ran through the valley from McKittrick to Sunset along the edge of the main range. The property claimed by our company was up on the hillside, with the north half only of one of the sections that we claimed on the flat.

When we went there there were no wells at all outside of these at Sunset and McKittrick. The development at McKittrick was west and southwest of the town.

I was not in the Elk Hills in 1900 although I probably went across their southeast end a time or two. In 1901 I made a trip in there with two other men hunting for oil land. We drove over there and stayed two nights, going to the south side of the ridge of the hills but passing up on to the ridge several times. We found no indications of oil there, however, and made no locations at that time nor have I made any since and I have never [**1667**] been back in the hills.

I returned to the Midway in 1908 and remained there until about a year ago. I did not make any attempt to locate any land in the Elk Hills after I re-

turned there in 1908 because I did not think that it was oil land.

CROSS-EXAMINATION
of
E. W. KAY.

When I went into the Elk Hills in 1901 I was looking for croppings of oil sand. At that time that probably would have been a conclusive indication to me of the oil character of the land as that was all I knew about it. I do not pretend to say that I knew very much about the Elk Hills as a result of the brief examination I made at that time.

I had an opportunity in 1901 to locate a great deal of land in the Midway flat in places where there are now productive wells, but I did not make any locations because I did not want them at that time.

REDIRECT EXAMINATION
of
E. W. KAY.

It was not the general impression amongst oil men in Midway flats at that time that oil would be found where oil has been discovered since. It was a quite general report at that time that the Midway flat had been condemned by geologists and that was common talk amongst the oil men. [1668]

O. E. HOTCHKISS, a witness called and sworn on behalf of the defendants, testified as follows:

DIRECT EXAMINATION.

I live in Oakland, California, where I have lived for

26 years. I am a native of Ohio and a graduate of Oberlin College of the class of 1882.

I have been in the West Side oil fields and went there first in October, 1899, at which time I went to McKittrick for the purpose of examining the field generally and particularly to look at a piece of supposed oil land that had been offered for sale. It was a portion of Sec. 22, T. 30-22, close to McKittrick. I was there two days and made as thorough examination of the field as I could in that short time. At that time the development was to the west and northwest of the railroad and was west and northwest of the town.

I returned to this place early in January, 1900, and took two surveyors with me to locate a piece of land in the Elk Hills that I understood was open to location. I was acting for myself and a number of associates who had formed a company known as the Yosemite Oil Company.

We went on the north slope of the hills of the summit on T. 30-23 and possibly the west part of 30-24. I ran over a considerable portion of the hills there up as far as the summit of the northern slope. I did not go on the southern slope at that time. We found that the land that we went into to examine had already been taken and I spent some time going up and down the range of hills east and west to see if there was any other land that was open but everything seemed to be under location. I remember that there was a bunch of locators that had taken a great many sections

which were numbered serially and the numbers ran up to as much as 150 claims. These locations were made by the Jewett & Blodget crowd. It was our purpose to locate this [1669] land presumably as oil land. There was a great deal of excitement at that time and nobody knew exactly what was oil land or what was not oil land, but everybody was trying to get a location somewhere and we joined the throng. We did not intend at that time to put up rigs and drill. We simply thought that we would look the land over and if later it developed into oil land, it would be worth something, and if it did not we would not be out very much.

Well, as I said, there was a great deal of excitement at that time and everybody was rushing to get locations, and there was very little really definite knowledge as to the oil situation. There were a great many mushroom experts who could tell you right where oil was and where it was not, but there were very few who really knew very much about it, as I found by talking to them, and nobody knew where oil would be likely to be, but everybody, as I said, was trying to get a location somewhere and they located land in every direction, in some cases miles beyond where there was any possibility, you might say, of getting oil.

In my trip into the Elk Hills in 1900, I did not find any indications of oil. There was nothing on the surface that showed any signs. On my return to Bakersfield, I looked into the records again and found that

there was some land open to location in T. 30-22. I therefore returned to McKittrick a few days later and went over the west end of the range of hills in T. 30-22 and the western portion of T. 30-23 pretty thoroughly and located a number of claims. That was in January, 1900, about the middle of the month. I then reported to my associates. **[1670]**

The report was that there was probably no oil there but that there might be; it was simply a long shot chance, and I had taken up the land simply because there was nothing else to be done. Everything seemed to be taken within miles of the oil field and these were the only locations I could find open and I had taken them on that long shot chance; there might be oil there but my judgment was that there was none.

My opinions at that time as to the locations held by Jewett & Blodget was just the same as it was concerning our own locations. There was no material difference between the two places. There were no surface indications on the land that I located. The formation was practically the same as it was in the Jewett & Blodget claims. The only reason that the land that I took up was not located before I got it was because it was supposed that everything in T.30-22 had been taken, and I observed by personal examination of the records that this was not the fact.

I did not find on any of my visits into the Elk Hills at that time the supposed seepage or gas blowout in Sec. 32, of T. 30-24, and I do not think that I was as far south as that.

I located part of Sec. 22 of T. 30-22 and we acquired the other part that had already been located, as there were some surface indications of asphaltum on the land. We fenced a section, put a cabin on it and began work digging asphaltum. For a time we thought we had a good thing in the way of asphaltum. We shipped a carload of it and took out another carload that we did not ship. Some of it was of the most excellent character, so pure that it would melt and flow in the sun. But as we worked further along into the deposit we found that it was nothing but a surface deposit—nothing but float that had come down from above. It was also found along the banks of the creek on either side. It soon ran out. It was a little surface deposit or float that had come down either in the form of oil floating down the creek and lodging **[1671]** and gradually accumulating on the banks, or more likely melted and half liquid asphaltum mixed with oil that had run down from the hills to the west in the direction of McKittrick.

We did not work on any other section in the vicinity because there was no indications on any of them that would justify doing so. We did put up derricks to hold our claims just as other people did at that time. I think we put up a derrick on Sec. 14 of T. 30-22. All we found on that section was a few narrow seams of asphaltum where the railroad cuts through the hill. It was evidently float because it lay with the stratification and the stratification was merely the wash of the creek as it came down. There

was no oil sand or asphaltum in place anywhere in Sec. 14 or 22 of that township. Since 1900, for several years I went down to that country three or four times a year but in recent years I did not go more than once a year and have not been there at all for the last two years.

From 1900 on, the development proceeded in this range of hills to the west of McKittrick and to the west of the railroad. To the east of McKittrick there is a little narrow valley lying between the McKittrick range of hills and the range called the Elk line, but at that time all of the development was on the west side of that little valley and none whatever was going on in the Elk Hills. I mean by this there was no attempt to do any bona fide development work. When I went into the Elk Hills in 1900 the section corners in 30-23 were marked by stakes and most of them had apparently been put up recently and were apparently private survey stakes, although I am not certain of this.

I went to Bakersfield prior to my trip to McKittrick on that occasion. Bakersfield was the central town for the various oil districts in which the oil excitement then existed. The town was very much congested with oil men, locators and speculators. **[1672]** The hotels were so crowded it was very difficult to get rooms at all, and in the evening one would have to elbow his way in the lobby as it was fairly packed. This excitement continued up to the time of the discovery of oil in the Beaumont district in Texas. This drew a great many people from Kern County

and the excitement died down, along in 1902 or 1903. After that excitement died down, everything was very flat there for some years. Oil went down to twelve and fourteen cents a barrel and there was hardly any profit in producing oil, even of you had a well already drilled. Development was checked and the boom broke. There was no speculation because there was no longer a basis for it and the great bulk of the locations were allowed to lapse. I kept in touch with the general situation there and some time afterwards, when the price of oil had begun to rise, another period of excitement developed and an oil boom started about 1909. **[1673]**

HARRY J. HART, a witness called and sworn on behalf of the defendants, testified as follows:

DIRECT EXAMINATION

My home is in San Francisco and I have lived here for about 31 years. I am connected with a number of oil companies. I am president of the Hart Oil Company which operated in the Elk Hills, and am also president of the Sea Side Oil Company, in Santa Barbara County and a director of the Federal Oil Company in Santa Maria district. I have been connected with oil companies actually engaged in the business for ten or twelve years and first went into this business in the Santa Maria district. I am not a driller but I have had charge of drilling operations in the field.

I went into the West Side fields in Kern County in February, 1910. In February or March of that year

the Hart Oil Company put up five derricks in Sections 11 and 13 of T. 31-23 in the Elk Hills and started drilling. We drilled a well in each of these sections. The well in Section 13 was drilled to a depth of 3700 feet and the one in Sec. 11 to a depth of 2,000 feet. Both of these were drilled with rotary rigs.

I was there frequently during the drilling operations of these wells and remained there some times as long as two or three weeks at a time, without returning to San Francisco. My principal reason for locating these wells at that place was because I thought it was shallow territory. I followed the directions or rather reports contained in United States Geological Survey Bulletin No. 406, written by Ralph Arnold and Harry Johnson. From this bulletin I got the impression that the depth where we located would be between 1,000 or 1600 feet, and possibly a little deeper on the lower edges of the hills. We were drilling half way between the top of the hills and the lower part, so I thought we would have to drill to 1400 or 1600 feet. I know a number of my friends who went in there in the Elk **[1674]** Hills hoping for shallow territory. I cannot say positively that they were influenced by this bulletin but I think they were.

We abandoned the well on Sec. 13 after going to the depth I have stated and finding no oil, and we have also abandoned the other well and the entire camp and moved all our material, leaving nothing whatever, not even the bunk house.

We found no indications in either of these wells.

In the well on Sec. 13, we found a stratum of salt water between 3400 and 3600 feet. We abandoned the property, principally because we found no indications of oil and because it had proved to be very deep territory.

I would not advise anyone to sink a well in that territory. While we were drilling there I was around the field considerably and kept in touch with the drilling. There were a number of reports that oil had been found by the Associated Oil Company in the Elk Hills but I never saw any there in commercial quantities, although there was an appearance of oil. I did not go to their well on Sec. 30, T. 30-24. From my experience in drilling in that territory and from all the information I received concerning other work there, I would not advise anybody to invest or drill in the Elk Hills, as I am thoroughly convinced that there is no oil there in paying quantities.

In drilling we used all the modern appliances so as to detect the kind of formation we were going through, and this was carefully watched by those engaged in the drilling, and we never discovered anything that would lead us to believe that there was oil there.

I have a well in the Santa Maria district 5100 feet, which was started on February 22, 1910. This did not produce oil, however, but I have a 4600 foot well on the same territory which came in as a flowing well but we later had to pump it. We **[1675]** have had very serious trouble in pumping this because of the

pumping rods or "sucker" rods, as they are called, breaking frequently. We purchased the very best rods we could obtain on the market, yet had the same difficulty. In my opinion it is a very difficult proposition to pump a well satisfactorily at that depth, and I regard it as impracticable to attempt to do so.

CROSS-EXAMINATION OF HARRY J. HART

By Mr. Mills:

Q. Mr. Hart, your well on Section 13 was on which quarter-section of that section?

A. Northeast, my recollection is. I am pretty near certain about that.

Q. That is right on the flank of the hill, isn't it?

A. Yes sir.

Q. Where the formation dips off into the valley?

A. Yes sir.

Q. And the one on 11 was on what subdivision?

A. Southwest quarter, I think.

Q. That also is right on the flank of the hill, isn't it, where the formation dips off into the valley?

A. Well, I should say that is a little closer up to the hill.

Q. It was after the dip or plunge starts toward the valley?

A. Yes sir.

Q. Did you take any geologic advice at the time you located those wells?

A. None other than—

Q. None other than reading this Bulletin 406?

[1676]

A. That is all.

Q. As I understand you, you had no regularly employed geologist, or even one which you had employed for that particular purpose of locating the wells in 11 and 13 which you have testified about?

A. No sir.

Q. And a great many wells that went in at that time, during the excitement of 1910, about the time that you started there, were located hurriedly, were they not, by parties who desired to begin development work?

A. I should say not.

Q. I am speaking of other parties.

A. Well, I am speaking of our particular instance. I should say not.

Q. Have you ever consulted geologists about those wells on 11 and 13?

A. No sir.

Q. You have not ascertained, then, have you, Mr. Hart, and don't know yourself—You don't pretend to any geological knowledge, do you?

A. No sir, I am no geologist.

Q. And you were the superintendent, had supervision of the work, of drilling the wells, you say?

A. I was the president. We had a superintendent.

Q. Well, you were in general supervision, were you not?

A. Yes sir.

Q. And you didn't pursue your investigations with a geologist to determine that your wells had been erroneously located where the dip or plunge leads off into the valley and that you would necessarily get into very deep territory by locating your wells at that section, that particular point, did you?

A. I would like to answer that in my own way.
[1677]

Q. Well, can you answer that by yes or no?

A. I would like to have the question read. (Question repeated by the Special Examiner.) I assumed my wells were located properly; therefore made no further investigation.

Q. Did you locate them yourself?

A. No sir.

Q. They were not located by any geologist?

A. Yes sir; they were.

Q. They were?

A. Yes sir.

Q. What geologist?

A. I just can't call his name. It is "Mac" something. I know him very well but can't just call his name.

Q. By Mr. Lewers—McMullen?

A. No sir. I know him perfectly well but just can't this minute call his name.

Q. By Mr. Mills—Did you employ him for the purpose of locating the wells?

A. No sir.

Q. Was that a gratuitous bit of information he gave, or was he paid for it?

A. No; the wells were located by this gentleman for Mr. W. L. Lelande, who I took the property from.

Q. Did you see him locate the wells?

A. They were located when I took them.

Q. So that whatever you know about it, then, is not of your own personal knowledge, but from hearsay?

A. From Mr. Lelande's statement to me.

Q. Well, that is necessarily hearsay, isn't it?

Mr. Lewers—What is the use of arguing it? I object.

Mr. Mills—I am not arguing. Mr. Hart and I are getting along all right. **[1678]**

Q. Now, the only well you visited, as I understand your testimony, in the Elk Hills, beside the two misadventures which you had, on the south flank, was the well in Section 26? Is that correct?

A. Yes sir.

Q. And that was a well that was put down by the Associated Oil Company?

A. Yes sir.

Q. On what quarter-section of Section 26, in 30-23, was that well located?

A. I don't remember that.

Q. And did you spend any great amount of time at that well when you went over there?

A. Well, I should say I was around there an hour or two at a time. Made a number of visits there.

Q. Now, what month or months were you over to the well in Section 26, and with reference to the year also?

A. I don't recollect that, sir, just when.

Q. Well, do you remember the year that you were over there?

A. I should say 1911, to the best of my recollection.

Q. 1911. Do you know whether it was in the spring or fall or winter or summer?

A. Well, the only way I can answer that is that I went over there continuously during our drilling and we started to drill in 1910 and kept it up until 1911. I should rather say it was the fall of 1910.

Q. Fall of 1910. And that was the last visit that you made was it, to that well?

A. No. That was was not. I was there—As I say, we were drilling—I want to fix the dates, if I can. We started to drill in 910. Well, I have not got my dates here, but my recollection is up to 1911 we drilled. We drilled about a year. **[1679]**

Q. Do you remember what month you quit drilling, that is, what month you quit, yourself, the actual supervision of the drilling on your wells?

A. April 11, assuming that I am correct that we started in 1910. That is the dates I have got fixed in my mind.

Q. Now, up to the last visit you made to the well on Section 26 in 30-23, the Associated Oil Company had made no substantial discovery of oil? Is that correct?

A. That is my opinion.

Q. Well, I didn't ask for your opinion. I ask you if you know.

A. No; none whatever that I saw.

Q. That you saw?

A. Yes. None whatever, I should say.

Q. They didn't discover any oil while you were there at the well, is what you mean, is it?

A. Yes sir.

Q. That is it. Now, do you know that on Section 26, in the early part of 1911—January or February, 1911,—or thereabouts, the Associated Oil Company struck oil and that the oil was occasionally spurting up out of the hole?

A. I don't know that, sir.

Q. So that if that happened it was after your visit there, was it?

A. That I don't know.

Q. What is that?

A. That I don't know. I don't know that it did happen.

Q. You don't know whether it happened or not, do you?

A. No sir.

Q. And you are not prepared to testify now that it didn't happen?

A. No sir. **[1680]**

Q. Now, you made no visit, did you, to the well on Section 24 in the same township?

A. No sir.

Q. In which the Associated Oil Company made a discovery of oil?

A. No sir.

Q. And you made no visit to Section 30 of 30-24?

A. No sir.

Q. Where the Associated have some drilling operation?

A. No sir.

Q. Now, you went into the south flank of the Elk Hills because you had an idea from reading Bulletin 406 that the depth would be anywhere from a thousand to sixteen hundred feet, or, in other words, it would be shallow territory?

A. Yes sir.

Q. That was one of the reasons that induced you to go into the hills, was it not?

A. Yes sir.

Q. And if you had known that the territory was deep territory and that the prediction made by Mr. Arnold in his bulletin, as you have read it, was erroneous in respect of depth, and that you would have to go three thousand to four thousand feet to get oil, would you have gone in there?

A. No sir

Q. You were somewhat disappointed, I take it, by finding that the territory was deeper than you expected, were you not?

A. I was disappointed at not finding oil at any depth after going such a great depth.

Q. Well, I think you stopped your well, didn't you say, on Section 11, at 2000 feet?

A. No. That was on account of an accident.

Q. Oh, you quit on account of an accident on Section 11? **[1681]**

A. Yes sir.

Q. And would you have gone further but for the accident, on Section 11?

A. Yes sir.

Q. Which one of those wells was first in time? The one on 11 or the one on 13?

A. The first in which?

Q. First in time? Which was drilled first?

A. I think we started them both about together, within a day or two of each other.

Q. Yes. And when the well on Section 11 reaching a depth of 2000 feet met with difficulties through an accident, you stopped drilling on that well?

A. And put our entire energies on the other well.

Q. How far apart in distance is one well from the other?

A. I should say about a mile.

Q. Now, you stopped your well on Section 13 at thirty-six hundred or thirty-seven hundred feet?

A. Somewhere about that.

Q. You don't know whether there is oil below the depth where you stopped or not, do you?

A. I don't know that. I had no method of know that.

Q. And you know of no means, outside of geologic

deduction, of ascertaining whether oil exists below the depth at which you stopped the drill or not?

A. Only by the use of the drill. That would be the only way.

Q. Yes; and when you cease using the drill, then your source of information stops, doesn't it?

A. Yes sir.

Q. As to the territory below the drill.

A. We stopped because we got into salt water.

[1682]

Q. Well, answer my question, Mr. Hart. Now, you don't know whether oil exists below the place where the drill stopped or not, do you?

A. Absolutely not.

Q. No. So that that was merely conjecture on your part because you found no oil before you got down to 3700 feet. Is that right?

A. Well, I can't say it was a matter of conjecture. We went as far as we wanted to go. It wouldn't be a matter of conjecture with me, sir. We just didn't want to go further.

Q. It was a matter of conjecture as to what exists below the place where the drill stops, isn't it, Mr. Hart?

A. Well, yes; perhaps you are correct in that.

Q. Yes. You stated that you used a rotary rig on these two wells.

A. Yes sir.

Q. And in using that rig, it is a part of the process to cement up the walls of the well by pumping mud or cement into the—

A. Mud.

Q. Mud into the pipe?

A. Yes.

Q. So that it comes up on the outside of the casing? Is that right?

A. Well, I am not prepared to say it comes to the outside of the casing. No; we had no casing in there. We would mud the walls up to keep them firm.

Q. You had no casing at all in there?

A. Only the drill casing. The mud itself walls it up.

Q. Walls up the outside of the drill casing, doesn't it?

A. Yes sir.

Q. And it would have a tendency, would it not, in coming [1683] up on the outside of the drill casing, to mask the formation through which it passed?

A. Not in my opinion, sir.

Q. And you know of instances, don't you, in the Midway or West Side fields, where a well has been drilled by the use of a rotary and abandoned because it showed no signs of oil, and that later, after washing out and using standard tools, they have brought in good wells?

A. I don't know of any such an instance.

Q. Do you know of a well on Section 30, 32-23, that was drilled with a rotary rig, abandoned, and afterwards found to be a good well?

A. I don't know that, sir.

Q. Do you know of a couple of wells in Kern River

field which were abandoned some years ago as unproductive, and that later, on test being made, they found the hole full of oil?

A. No sir.

Q. You didn't get over to Section 30 in 30-24. Do you know that that well of the Associated Oil Company was brought in in the summer of 1911 and was put on the gauge by an employee of the Associated Oil Company and showed 406 barrels of high gravity oil for two days?

A. I don't know that, sir.

Q. You don't know that. Would you regard a well which would produce 406 barrels, on the gauge, for two days, while they allowed it to run, of a gravity, say, of 28 degrees, as an indication of oil territory?

A. Yes sir.

Q. Would you regard it as a good indication of an oil territory?

A. Yes sir.

Q. So that if it should prove to be a fact, Mr. Hart, that **[1684]** the Associated Oil Company struck oil on Section 30 of 30-24, which corners on the very section which you visited, and produced a well there which showed on the gauge for two days, while they ran it, 406 barrels a day of 28-gravity oil, it would have a tendency to modify your opinion about the Elk Hills, wouldn't it?

A. I should consider that a good well.

Q. Now, did you ever hear that the Associated Oil Company in that well perforated their casing for an

enormous distance, some seven or eight hundred feet, that after they struck the oil-sand and put the casing down below the point at which the oil-sand was struck they perforated it for seven or eight hundred feet for the purpose of relieving the enormous gas pressure, to keep that well from becoming a gusher? Did you ever hear that?

A. No sir.

Mr. Lewers—Nobody else did, except Mr. Mills.

Q. By Mr. Mills—And did you hear also that the Associated Oil Company capped that well to prevent general knowledge of the conditions there in the field, and, to relieve the well, left a one-inch pipe outlet so that the gas would not blow the top of the well off?

A. No sir.

Mr. Lewers—I object to this line of examination, on the ground that it is not cross examination. Counsel is attempting to testify into the record, and I move that the entire testimony given by council for the government be stricken from the record as purely hearsay, conjectural, and unfounded upon anything in the record.

Q. By Mr. Mills—What is the price of 28-gravity oil now, Mr. Hart?

A. I am not certain; but I think about sixty-five cents. **[1685]**

Q. What is the price of oil as low as 15-gravity?

A. About forty cents at the wells.

Q. So that there is a substantial difference in the price of the two oils?

A. Yes sir.

Q. And the higher the gravity the more valuable the oil?

A. Yes sir.

Q. The well which will produce at that price 28-gravity oil, forty barrels a day, is worth as much as a well which will produce sixty barrels at 15-gravity?

A. I would have to figure that out.

Q. Well, that is your estimate of it, generally, isn't it?

Mr. Lewers—That is objected to. It is a mere matter of calculation.

A. If that will make the difference in the price I stated, if that figures out the price I have stated.

Q. By Mr. Mills—Now, there is evidence in this case, in the form of a letter written by the superintendent or general manager of the Associated Oil Company, that a well in the Elk Mills producing a hundred barrels a day is a paying well. Is that your judgment?

Mr. Lewers—What letter do you refer to?

Mr. Mills—The letter of Mr. Porter.

Mr. Lewers—Does he make any such statement in that letter?

Mr. Mills—Yes sir.

Mr. Lewers—I have no recollection of it. I object, as no foundation for the question; further, not cross-examination of any matter brought out in the examination of this witness.

Q. By Mr. Mills—This was a letter which was in-

troduced in the record as Plaintiff's Exhibit N. It is a letter which was written by W. S. Porter. Do you know that gentleman?[1686]

A. Yes sir.

Q. What position did he occupy with the Associated Oil Company?

A. I think he was president and general manager.

Mr. Lewers—Vice-president and general manager, wasn't it?

The Witness—Vice-president and general manager.

Q. By Mr. Mills—He would be a person who, in your judgment, would know something about what a paying well would be?

A. Yes sir.

Q. Now, in his attempt, for the Associated Oil Company, to get rid of some conflicting titles in the Elk Hills, Mr. Porter wrote this letter:—

Mr. Lewers—I move that that introductory statement, "In an attempt to get rid of some conflicting titles," be stricken out as merely testimony of counsel. I object to argumentative statements.

Q. By Mr. Mills—Associated Oil Company. General Offices, Wells Fargo Building, San Francisco, July 25, 1911. Captain William McKittrick, Hotel Potter, Santa Barbara, California. Dear Sir. I have advised Mr. Scribner that on your return to San Francisco, which will be next week sometime. You will either call upon him or communicate with him and arrange a meeting at which the conflicting titles

of the Elk Hills properties may be discussed. Mr. Scribner will negotiate with you along the lines we discussed and agree to keep one string of tools running on each section so long as oil is discovered in paying quantities, a well producing a hundred barrels a day being considered a paying well."

Mr. Lewers—For the purpose of that contract.

Q. By Mr. Mills—Now, Mr. Hart, do you agree with Mr. Porter that a well in the Elk Hills which will produce a hundred barrels a day is a paying well? **[1687]**

A. I do not, sir?

Q. Do not. The fact, if it were known to be a fact to you, that the Associated Oil Company brought in the well which I have described, on Section 30, would, if you had known it, have modified your opinion as to the value of the Elk Hills as oil territory, would it not?

A. Yes sir. You refer to a well of four hundred barrels, I assume?

Q. Yes; four hundred and six barrels.

A. Yes sir.

Q. And remember, it was running, under gas pressure, on the gauge, that amount at that time.

A. Yes.

Mr. Lewers—For two days.

Mr. Mills—For two days. Yes.

Q. Now, Mr. Hart, don't you know that oil has been found below salt water?

A. Yes sir.

Q. So that the fact that you struck salt water in that well on Section 13 would not be conclusive evidence to your mind that no oil would exist below that stratum of water?

A. No sir.

Q. Do you pretend to any scientific or geological knowledge of the formation of the south half of Township 30-23?

A. No sir.

Q. Do you pretend to say that your experience, and the results obtained by your operations on Section 11 and 13 in 31-23, have any bearing whatever in ascertaining or determining the mineral or non-mineral character of Sections 15, 17, 19, 21, 22, 25, 27, 29, 33 and 35 of 30-23?

A. I would like to look at the map.

Q. Right here, sir. It is these red sections here. Your **[1688]** well is one here and one here. These lands lay up here.

A. Now, will you repeat the question? (Previous question read by Special Examiner.) No sir.

Q. And as to those specific sections which I have described to you, you have no knowledge, whatever, have you, of whether they contain petroleum or not?

A. No sir.

Mr. Lewers—May I inquire, Mr. Mills, Does anybody else?

Mr. Mills—Yes sir.

Mr. Lewers—Who? Government geologists?

Mr. Mills—The Southern Pacific geologists know

about it, and when you bring them on the stand we will get some interesting information from them.

Mr. Lewers—I think you will; there is no doubt about that. But you won't get that.

Mr. Mills—Those are the boys who had the keenness, in 1900, to know what was good petroleum land; and those geologists not only selected those lands for the railroad company, but grabbed the even sections, also, later, for themselves.

Now, you have been acquainted, somewhat, with the character of the surface there in the immediate vicinity of where you were operating, Mr. Hart. From what you know of the land on which you placed your wells and what you could see around the hills there, would you say that the surface of the ground is level or broken?

A. Well, do you mean by the word "level", flat?

Q. Yes. What is the general character of it? Is it broken up into hills or is it largely flat surface?

A. It is broken up into hills.

Q. The soil is somewhat porous and sandy at the surface, isn't it?

A. Yes sir.[1689]

Q. And will not easily hold water content, because of its porosity? I am speaking now of the surface.

A. Yes sir. Well, it absorbs the water very—

Q. Very rapidly, doesn't it?

A. The top surface, if that is what you refer to. Yes sir.

Q. The lands have no value, to your certain knowl-

edge, for agricultural or farming purposes, have they?

A. I should say they would be valuable lands if they could get water there.

Q. For agricultural purposes?

A. Yes sir.

Q. Do you think you could put a farm on the hills there?

A. If you had water.

Q. Whereabouts would you locate a good farm there, Mr. Hart?

A. Section 13.

Q. Where you were?

A. Yes sir. I should think that would make wonderful farming lands.

Q. Is there any other place?

A. Well, that particularly I had in mind, because we had the experience there. For instance, water seeping around there and feed dropping from the barn showed a wonderful growth there.

Q. Yes, that is to say, if you can keep the water on the land there you could grow something?

A. Yes sir.

Q. That Section 13 is more or less in the flat, isn't it, with reference to the main body of the hills?

A. I think the lower part of it is in the flat, but where we were is in the uplift. I could tell by the map better.

Q. Now, what season of the year does rain fall there, if [1690] there is any rain?

A. Yes; there is quite some considerable rain.

Q. What season of the year is it?

A. Well, about December until March, I should say. We had some heavy rains there in February, I recollect, at one time.

Q. And after that time is there any rain in the rest of the year?

A. We had some rain during the summer there once or twice, quite big storms. Didn't last very long, but there was quite a heavy rain there.

Q. Well, the hills are barren generally, aren't they, most of the year, for general vegetation?

A. No, I should say those hills for six months in the year were quite green.

Q. For six months in the year?

A. Starting in along about late in the fall until pretty well along in the spring. There were sheep there grazing.

Q. For six months there are sheep grazing there?

A. I didn't time it, but I should say for five or six months.

Q. Isn't a fact sheep are driven through those hills there for two or three or four months after the early spring rains?

A. I have seen them there much longer than that, sir.

Q. And that for the rest of the year there is not a living thing could live there on anything they could find in those hills in the way of vegetation?

A. Well, I don't think it is quite that bad, sir. I

think I saw sheep there grazing—well, I don't remember just what months, but there were some sheep there—well, I would not say all the year round, but quite some considerable time.

Q. Would you regard land which can be rented for grazing [1691] purposes at four cents an acre a year as good grazing land?

A. Well, I am not in the sheep business. I can't answer that intelligently.

Q. No. You don't regard that as good agricultural land in its present condition, do you?

A. Have to have water.

Q. Yes; and there is no water there, is there?

A. There is a big creek there, for instance.

Q. Where is that? In the Elkhorn Valley?

A. No; it runs hight below our Section 13.

Q. That is what we have termed the Elkhorn Valley. It is in the draw between the Buena Vista Hills and the Elk Hills.

A. Yes sir.

Q. There is no creek in the hills, is there, that you know of—in the Elk Hills, I mean.

A. Well, there is an opening there as we went from Section 11 up to 13, in between there, that had considerable water in it sometimes, near to that land.

Q. Well, it is not a creek, is it? It is only when it rains that there is water there?

A. That is all, sir.

Q. It is a dry gully most of the year, isn't it? Isn't that right?

A. Yes sir.

Q. Now, you don't know of any water in the Elk Hills, do you—natural water in the Elk Hills—except when it rains?

A. Well, I know, just below the surface, of considerable water, if that is what you mean, at not a very great depth.

Q. What is it? Surface water?

A. On Section 11, at about a thousand feet, they found quite a flow of water.

Q. At a thousand feet? [1692]

A. Yes sir.

Q. Well, would you call that "just below the surface"?

A. Then I was going on to say that on our 13, at 357 feet, we struck quite a water strata.

Q. Well, do you think that you could pump water there from those strata that you have mentioned and successfully and economically do farming on those lands? Is that what you mean?

A. I believe I could on that Section 11.

Q. On Section 11?

A. Yes sir.

Q. Down in the flat?

A. No sir; I mean up in the hills.

Q. In the hills?

A. Yes sir. On the northeast quarter, I should think it was, the National Crude, I think is the name of the company, got into water about a thousand or twelve hundred feet; and we discussed it then and

thought it would make—it was good drining water, good commercial water, you might say, in very great quantity; and that is as far as they went.

I am not interested in any way with the defendants in this case. I was not subpoened as a witness, but came as a matter of courtesy.

RE-DIRECT EXAMINATION
OF
HARRY J. HART.

The cost of our operations in those two sections was about $125,000 for actual operating expenses. I would not consider a well four thousand feet deep that showed on the gauge 406 barrels for two days, and after that fell off, down to as low as 20 barrels a day, a commercial proposition.

From my experience in the oil business I do not think any man can tell what is underneath the ground in the way of oil without sinking a well. **[1693]**

FRED KIMBLE, a witness called and sworn on behalf of the Defendants, testified as follows:

DIRECT EXAMINATION.

I live at San Mateo. Have been interested in the oil business for about 12 years, first at Coalinga. After drilling a couple of holes there, I went to McKittrick, probably 5 years ago. I am interested at Bellridge.

I was in McKittrick 8 or 9 years ago a very short time, not over 4 or 5 days, with E. J. Miley. At that time, we made a trip as far as Sunset looking for possible oil land, to secure a lease to operate on, drill on.

I made numerous enquiries of people acquainted

with the country as to where there might be an opportunity of securing lands that would be favorable for oil.

We stopped over night at the old Chanslor & Canfield Midway property and from there went down to Sunset the second night. We followed along the base of those hills all the way down. There was no one working in the hills.

We saw the Elk Hills on that first trip. I looked over them. I did not go into the Elk Hills; no one called my attention to them or recommended it as possible oil land or anything of that kind.

I returned about 5 years ago and drilled at the north end of McKittrick. That was about a year after the earthquake in San Francisco. There was no work going on in the Elk Hills in the way of drilling at that time as far as I know.

I think I was at North Midway at the time the Honolulu well came in in the Buena Vista Hills.

I never heard the Elk Hills, among oil men, considered possible oil territory, prospectively speaking, until after that Honolulu well came in, and then that started a good many prospectors to thinking that the Elk Hills might be oil land, be- **[1694]** ing apparently similarly situated.

I went into the Elk Hills at that time. I made a slight examination. I went in there across over the north end of the hills, on the top of the hills, about where I presume the Scottish afterwards drilled. And then of course with a machine I travelled along the

south and west flank down through the country just at the base of the hills on the south and west of them. I have made an examination only across the north end of the hills. I started from a little below the Belgian property which is just a little south-east of the McKittrick field, and then walked from there across through some little elevations and cuts and washes until finally I got up on top of the Elk Hills which is kind of the northerly end of them—I mean, the north-westerly end.

I did not make any locations in the Elk Hills or attempt to.

I am familiar with the impression amongst oil men as to the character of the Elk Hills. That impression is that it is not oil land, commercially speaking. We consider that it has been demonstrated not to be oil land by reason of the large proportion of failures and the depth they have gone without success.

CROSS-EXAMINATION OF FRED KIMBLE.

If I remember right, three of us spent about $12,000 in drilling a couple of holes near Coalinga in the early days, possibly more than that. We went down about 1800 feet but didn't go deep enough.

Al Garbeson and myself drilled a well in the south-east corner of 16-19-15 and got a little oil, but not enough to pay. We drilled the hole only about 900 feet.

The next well I drilled was in the north end of the [1695] McKittrick field where we got a little oil, but not in commercial quantities.

The next hole I put down was in section 33, 28-20 about 4 years ago. We got oil but hardly enough, about a 20-barrel well which I abandoned.

The next well I drilled was I think in section 21, 31-22, North Midway where we got oil in commercial quantities, about 3 years ago. We sold the property and I don't know what's being done with it now. It is about a 50-barrel well, I think.

The next well I was interested in—I really just started one to hold the ground and afterwards sold the property—was on the south-west corner of 15-29-21, on the flat just south of the Bellridge field. That was abou a year ago. I only went 800 feet and sold the property to the General Petroleum Company. It was a dry hole when I left it, and so far as I know, it is a dry hole to-day.

That was the extent of my drilling. I did drill a well in section 2, 29-21 for the General Petroleum Company on land that I had sold them. That was on the flat. We got oil but the well was not on a commercial basis as far as I know. It looked as though it would be a paying well if properly finished.

In spite of the dry holes, I have been ahead of the game. Of course, I have made it on land but not in drilling wells. In selecting oil lands, I have been successful; in drilling oil wells, I have been unsuccessful.

Mr. Chanslor, of the Associated Oil Company, is my

brother-in-law—married my sister. I presume he is heavily interested in the Associated Oil Company. I think he was president at one time. The Southern Pacific Company owns 51% of the capital stock of the Associated Oil Company and control it by stock ownership.

No one ever recommended the Elk Hills as oil land 8 or **[1696]** 9 years ago. None of us ever dreamed of looking out there at that time, as far as I can recollect, and we did not dream of looking at the Midway flat, either, at that time. That was, I guess, a little ahead of us them. I could, if I had had the foresight, have gone into the Midway flat and made a fortune, but I overlooked that the same as I did the Elk Hills. I am glad that I overlooked the Elk Hills. As to the Buena Vista Hills and the Elk Hills, if one were good the other looked somewhat similar and that made the people think that the Elk Hills might be good after oil had been discovered in the Buena Vista Hills. As to what oil indications the Buena Vista Hills had that the Elk Hills did not have, I will say that the Buena Vista Hills have what I call a blow-out or a blossom where it was forced up from below just south-east of the Honolulu No. 1 well that would indicate the possible presence of oil underneath. In my judgment I would call it a very good indication. I have visited that blow-out or cropping of sand in the Buena Vista Hills.

The contour of the Buena Vista Hills and the Elk Hills look alike. There is considerable similarity

in outward appearances and the only dissimilarity that I can now recall is the fact that the Buena Vista Hills has a gas blow-out and I didn't see one in the Elk Hills and never heard of there being any there.

I never saw a gas blow-out on section 32, 30-24 in Elk Hills. If I had seen a gas blow-out there, in that case I would think it would look encouraging until it had been proven otherwise; and based on successful drilling in the Buena Vista Hills, I would say that it would be so encouraging as to justify the expense of drilling in there.

At the time I was in the Elk Hills in 1910, the work there was just starting. There were no rigs up. I don't know what land I visited. I was just simply going over the hills as **[1697]** far as I could walk over them. I was not out there again after 1910 and don't know what has happened there since then except what has been told me by persons interested there.

Assuming that near this gas blow-out or oil sand cropping on section 31 of 30-24 in the Elk Hills, and adjoining the lands in controversy in this suit, a company had sunk a well to twenty-six or twenty-seven hundred feet and encountered a stratum of oil sand some 25 or 30 feet in thickness, and gone down for a distance in the neighborhood of a thousand feet beyond that, and that that well began to spout oil and was put on the guage and produced for at least two days at the rate of 406 barrels a day, I would certainly call that encouraging. Of course, to know what a

well would amount to, we would like too see it produce maybe for thirty days, or something like that, to see how it holds up. I have known wells that started off nearly that good and were afterwards abandoned.

RECROSS EXAMINATION
OF
FRED KIMBLE.

I cannot say in just what particular townships the wells in the Elk Hills over three thousand feet are located. I know along over the hills, there has been in the neighborhood of a dozen wells drilled, many of which went over 3000 feet in depth, down to over 4000 feet. The Scottish well drilled 4000 feet or a little over, but I can't say what townships the particular wells were located in [1698]

JOHN P. KERR, a witness called and sworn on behalf of the defendants, testified as follows:

DIRECT EXAMINATION

I live at Bakersfield, Kern County, and am and have been engaged in the oil business for about 15 years.

I began in the Coalinga field, went from there to the Kern fields. From the Kern fields I went out to the Midway fields in 1902.

From the time I entered the oil business, I have travelled from Alaska to Mexico in different fields, Wyoming, Utah, New Mexico and Texas.

I have done everything that is to be done on a lease, drilling, tooling, roustabout work.

In recent years I have had charge of the Land Department of the Chanslor-Canfield Company. It is my duty to report on all territories and to go to and buy, lease and operate prospective oil lands. I can't say how much territory I have selected for that company. I can say that I report on about all the lands they drill on. Lands I have selected are in the Midway, McKittrick, Bakersfield, Maricopa, Kern field and Alaska. By Bakersfield, I mean the Kern River field.

When I went into the west side in Kern County in 1900 or 1901, I went for the Chanslor-Canfield-Midway Oil Company for the purpose of drilling for oil. I selected everything they took in that field. On the west side, in examining the lands, I went down from the McKittrick field down through the Midway, down as far as what they call Section 25 Hill and through that Valley that runs between that and the Elk Hills. In getting ready to drill north of McKittrick, I went up through the hills there.

I went over to the Elk Hills. I have been there a number of times since 1901 and have been over pretty nearly all **[1699]** of it for the purpose of examining the lands to see whether I thought we wanted any of them or not for oil purposes. In 1901, I stayed out there about 7 months, on the slopes of the hills on the Midway side; and then I was over all the land and went from there across into the Elk Hills and through there; I didn't see anything that I thought we wanted to spend money on. I did not acquire or attempt to acquire any land there.

I made a report on the Elk Hills but would not say that it is of record anywhere. I don't think the Chanslor-Canfield Company ever kept my written reports. I will explain the way I made my reports in those times by saying that if I saw a piece of land that I thought was oil land, I had authority to immediately put a rig on it and drill on it and I was asked no questions about it. Everything was left to me. I came to the conclusion that the Elk Hills country was too much of a "wid cat" for us to tackle.

I have been in the Elk Hills since 1901. In 1902 I spent a good deal of time over all of that Elk Hills country and through there, in the Midway country. I had charge of the drilling and things at that time in the Midway that we were doing there and so I went over those hills, and I never saw anything that we wanted there and so I didn't pay much more attention to it. My travel didn't take me into the Elk Hills very much after that at all.

The Chanslor-Canfield Company had a rig on section 4 south of McKittrick and a rig on section 6 and one on section 8 and one on section 17 in 32-23, I think if I remember. I can't say positively as to the township.

At that time the Chanslor-Canfield operated in the Kern field, the Coalinga or Midway field and the McKittrick field. They were operating producing wells at that time. We got a rig up in section 1, 29-20 north-west of McKittrick. [1700]

From 1901 to 1905, I was most of the time in the

McKittrick field. I had my opinion as to where the oil was there. I thought the formation stood up too steep to ever reach far out into the valley that runs toward the Elk Hills, and I think that opinion was entertained by every oil man there.

I was in the west side fields after 1905 up to this time.

I have not been in the Elk Hills, except to cross through there on the roads that run to the Standard Oil Company there, in the last four or five years.

I was either in Bakersfield or McKittrick at the time the Honolulu gusher came in in section 10 in the Buena Vista Hills. After that gusher came in, I guess everybody thought that they could go into the Elk Hills and get hold of a piece of land that might be oil land or that they might have a chance to sell it to somebody who thought it was oil land. I didn't go into the Elk Hills myself at that time. I never got excited. I never thought it was oil territory. I believed it was too expensive to operate if it was oil territory. I thought it would be too deep. I did not think it was oil territory and I now think it is very doubtful as to whether it is or not.

CROSS-EXAMINATION
OF
JOHN P. KERR.

The expression "wildcat" would mean that we are going into a new territory and we will use our own judgment whether we are going to get oil or not. It means new territory that has never been proven with

wells being drilled on each side of it, or something of that kind. I think that is the general understanding of the meaning of that term among oil men.

In 1901, I thought the oil horizon lay along the eastern flank of the Temblor Range. **[1701]**

The reason that I went into the Elk Hills to look over a location was that I had made a good deal of money out of locating land and selling my interest in it where there was never any oil. I didn't go into the Elk Hills with the intention of locating land that I didn't believe there was oil in for the purpose of roping somebody in. I went to the Elk Hills with the intention of looking. The natural conditions there, the Elk Hills being a structural uplift in the valley, with the known indications along the eastern flank of the main range, indicated to me that there might be an oil proposition there.

I have visited the Buena Vista Hills. That is an uplift of hills out in the valley off from the main range. I think the structural formation of the Buena Vista and the Elk Hills are very much alike in every general way that can be discerned by the eye. This fact, and the known outcroppings along the eastern flank of the main range, caused me to go to the Elk Hills and look at it as prospective or possible oil territory in 1901, and I think other oil men entertained that belief at that time.

I never saw an outcropping of sand or gas blow-out in Section 32, 30-24. I never had occasion to see it and never heard that there was a cropping of sand over there.

A distinct oil cropping of sand or a gas blow-out in the Elk Hills on Section 32, 30-24, taken in connection with its general structural fold and uplift and its relation to the line of outcropping along the eastern flank of the Temblor Range, would not have been persuasive evidence to me that the land contained petroleum. I don't consider that a gas blow-out would designate that we could have an oil field there. For instance, if you will take all of our fields along the Coast Range, you will find that where you find a gas blow-out, you will find the fields and there,—we get no more oil from that strata in that **[1702]** field. You can take the McKittrick, the Sunset, the Midway fields and all through, wherever you find a gas blow-out, the oil is burnt out and gone,—we don't get any oil. If I had found stained sand formed by impregnation of oil in Section 32 in 1901, that would have been evidence to me of the existence of petroleum and I would have considered that pretty good "wild-cat" territory. If the oil had been dried up fifty years, I would have considered it a good chance to drill because I would expect to find oil below the surface. I would not expect to find it on the surface.

I have not made an examination of the Buena Vista Hills any more than by going over them the same as I have over the Elk Hills. I never heard of a gas blow-out on Section 11 of the Buena Vista Hills and never saw any cropping of sand there. I don't know that I was ever on Section 11.

In 1901, I didn't regard the Elk Hills as worth anything. I didn't know whether it was deep or not

until after they began to drill over that way through the valley. Then we began to figure that there might possibly be oil territory over that way. It is reported as being deep territory,—my impression is somewheres about three thousand feet.

Under the conditions that existed in 1901 where it would have cost from three to five hundred dollars a month for water and anywhere from eight hundred to a thousand dollars a month for fuel, and where the oil, if discovered, would have to be hauled from eight to twelve miles to the railroad and the price of oil was down to twenty cents a barrel, I would not have advised anyone to go into the Elk Hills and drill even if I had known that there had been a good oil stratum there. A man could go and drill one well and get his land and keep it a certain time until the markets were all right. I don't know anything about the wells in section 30, 30-24, in section 26, 30-23, or in [1703] section 24, 30-23. I have not been to the wells brought in there by the Associated Oil Company.

Assuming that the Associated Oil Company have brought in a well in section 30, 30-24 in the Elk Hills of 28-gravity oil, which ran for several days at 406 barrels a day, I would certainly regard that as an indication of commercially profitable oil territory, and also regard it as proof that the territory immediately around the well was commercially profitable territory.

Mr. Chanslor, with whom I am employed, was President or Vice-President of the Associated Oil Company at one time, I think. He is in the Asso-

ciated Oil Company now, but I don't think Mr. Canfield is interested in the Company at the present time. He was interested when it was first formed several years ago. I think he has sold his stock. He may own bonds in it now.

I have been fairly successful in the location of oil wells, but have made some mistakes.

I did not look over the Midway flat in 1901 and 1902 for oil lands. I didn't think the field would run out that far. I tried to get closer to the hill at that time. I have located them since then. I went into the Elk Hills in 1901 for the purpose of looking at land to locate.

RE-DIRECT EXAMINATION
OF
JOHN P. KERR

I didn't find any land in the Elk Hills to locate. I cannot say that there was any special reason for my going there. I have been over most all of the hills, all through the Coalinga hills and down through the Midway and all of them.

I would not consider a well four thousand feet deep that yielded 406 barrels for a couple of days and then dropped down to 20 barrels a day, a profitable well. A well ought to be tested between thirty and sixty days to determine whether it is **[1704]** a commercial proposition or not. I have known of instances of wells in Wyoming that started in with a very heavy flow and then diminished, but was never interested in

a well of that kind in California. I don't know about other people.

In some territories where the gas is strong, it will flow itself off at first and quit. In other territories where we don't have such strong gas, it don't do that.

RE-CROSS EXAMINATION
OF
JOHN P. KERR.

In some of the wells in the West Side field—for instance, in the new field of Bellridge—I believe the wells are getting better all the time. In the fields I have mentioned, there is a gradual increase in the production of a well from the time it is first brought in as a rule; we figure that after the oil gets running in the sand, the well should do better; but we don't figure a well from a blow-out. That is the rule as to gushers. It is not a rule in all wells. **[1705]**

ROBERT E. GRAHAM, a witness called and sworn on behalf of the defendant, testified as follows:

DIRECT EXAMINATION
OF
ROBERT E. GRAHAM.

I have lived off and on for years in San Jose and am an oil operator. I have been in the oil business since about 1901. I first commenced operating on 25 Hill in the Midway field. Since that time I have been operating most of the time in the field. I have drilled eight more wells on that property.

I am not a driller but superintended the drilling operations on the first well, but have not superin-

tended drilling since then. I have had other superintendents and have handled lands and things of the kind in the oil field. I devoted part of my time in examining land for the purpose of determining its character as to whether it was oil land or not. I have examined lands all through the Midway field and have been all around through that country outside of the Midway field.

I began making examinations of lands in this way in 1901. I was connected with the Elkhorn Company, the Millie-Francis lease and Graham's ten acres. They have been producing oil but the wells are shut down now. The Standard is not **[1706]** taking our oil on account of its gravity.

Since 1901 I have been connected with those three properties and have handled lands that afterwards had a production. I remained in the west side field until 1904 and it got very quiet and I was out back and forth, but I was there every year two or three times until 1908, and then I went back and have been there off and on very regularly since.

During the period from 1901 to 1905 I passed through McKittrick once in a while in going to Bakersfield or over there to get the train. The wells there, at that time, were in the same place they are now; about the same—there hasn't been much change there that I can see. There were wells right there at McKittrick but there were no more producing wells, in 1901, until you got down towards 25 Hill, around in that country, as well as I remember, and from there

on there were wells here and there into Sunset. Maricopa had some wells. I don't think there was much change in the wells between McKittrick and Sunset from 1901 to 1904. The wells were right on the edge of the hills to the right in the hills. No wells had gone out into the flat. The progress out into the flat has been since 1908 or 1909, as I remember. At the present time they have gone clear across the flat into the Buena Vista Hills.

There was no development in the Buena Vista Hills prior to the time I left there in 1904.

It was a general idea among oil men from 1901 to 1904 that the oil was along the edge of the hills, and, of course, I always figured that there was oil out in the flat **[1707]** but it would be deep and I guess everybody figured the same way; the majority of them, anyhow.

In the first well I sunk in 1901 we got oil about five or six hundred feet; that is a small well. They had oil down around Maricopa at about seven hundred feet—a pretty good well.

I think the Cresceus Oil Company had the first well in that vicinity where I was. It was on 25, as I remember. But Spellacy had a production on Section 26 before Cresceus.

I have heard of Burks well. I don't think I was there at that time. I was at many wells and might have been there, but I cannot remember it. I always heard it was a producing well.

I first went into the Elk Hills in 1901. We went

down by the lake and drove up on top of the hills and looked around there to see if we could find any oil sand or seepages or anything that looked like oil formations there. I didn't find anything like that. We were in there all day that time. I don't remember the Sections we were on.

I have been in the Elk Hills four or five times as nearly as I can remember. First in 1901, next in 1910. I think I was there once in 1911 and twice in 1912.

From 1901 to 1910 I was always looking up lands to see anything that looked good for oil purposes. If I found anything we located it to see if we could handle it. I did not, during the interval between 1901 and 1910, endeavor to acquire any lands in the Elk Hills because there was nothing **[1708]** doing over there. There was no excitement in that part of the country and I never went in there at all. I did not think it was oil land. I didn't know but I didn't think it was.

When I went into the Elk Hills in 1910 there had been a well struck in the Buena Vista Hills and there were lots of people going in there and looking around to see what could be done. Some men took me over there and showed me some lands that they had located, had cabins on them, and were supposed to show me a seepage and oil sand. I didn't do anything with the property. I saw what they claimed was the seepage. I didn't know what it was and I could not make out, I could not make anything out of it. I was not attracted by it.

Lots of companies went into the Elk Hills just after that. Barlow and Hill; the Associated Oil Company; the Balfour-Guthrie and the Kinsey outfit, and quite a number that I have forgotten went in there. I don't think I remember the Scottish Oil Company but I remember the Hart Oil Company.

On my trip in 1910 I was on the eastern end of the Elk Hills and in 1911 I went right through about the center of them, through where the Associated well was, or now is. I went there in an auto; just drove right past there and went on over to Section 16.

When I went there first, in 1912, I went to Dave Kinsey's rig, where he sunk a well. The last trip in 1912 was made a couple of months ago. We drove down the valley between the Elk Hills and Buena Vista Hills and cut into the Elk Hills **[1709]** on the oil road and came right straight back on top from the western end of the Elk Hills to the eastern end of them and down back into Taft. We didn't go to any particular property. We stopped at one or two rigs. There was no oil development work going on while I was there on that trip. There were lots of rigs and derricks but there was no work going on anywhere in the field. I never met a man on that trip.

I think it is a general opinion at the present time amongst oil men that the Elk Hills are worthless for oil land.

CROSS EXAMINATION

I first went to the west side fields in 1901 from Tuolumne county, where I had been quartz mining.

I had been lode mining for probably a year, continuously, and had done nothing in the oil business before 1901. I first went into the Elk Hills in the fall of 1901. I started in from Section 36, 12-24 near Maricopa. Before that I was drilling a well on 25 Hill and putting in a water pipe line. In going to the Elk Hills that time we didn't travel the road between Buena Vista Hills and the Elk Hills. We went around between the lake and followed the lake until we came to the edge of the Buena Vista Hills; circled the eastern end of the Buena Vista Hills. We went up on top of the Elk Hills and drove around. We didn't go to the seepage in Section 32, 30-24. I never saw that. We came back the evening of the day we went in. I spent about six or seven hours in the hills. The only oil experience I had had before going in there was, I had superintended drilling of one well on 25 Hill. I had no **[1710]** knowledge of the oil business. The only knowledge I had was from the west side field—from all the wells that were in there and from going to the seepages and looking at that country. From the experience I had had and from the examniation, of not to exceed six hours, in the eastern end of the Elk Hills I am not at all willing to testify that they are worthless for petroleum.

I have seen what they called an oil seep in Section 32. I don't know whether it was an oil seep or not. It lays in a canyon. There are two or three places dug out there and it looks as though it might have

been, at one time, oil sand. But I do not know what it is.

I think the oil well on 26, 30-23 was the one I was at.

When I went into the Elk Hills I was looking for seepages, oil sands, and if I had found sand well defined and taken that together with the natural geological structure of the hills, I would have regarded that as a good indication of oil territory.

I know that the Associated Oil Company built a four inch pipe line from their well on 30, 30-24 down to Fellows, a distance of about ten miles. I understood that they built the pipeline to flood those wells. I say that it would cost about thirty or forty thousand dollars to build a four inch pipe line ten miles.

I know of the Secretary's withdrawal order of September 27, 1909. That might have had an effect to suspend operations generally, in the Elk Hills and Buena Vista Hills [1711] to a certain extent; but a lot of development went on after that withdrawal.

I didn't make locations in the Elk Hills because the country didn't look very good. It looked pretty good from a structural standpoint but I didn't find any oil seepages throughout the cropping of sand.

In 1901 I had an opportunity to locate lands in the Midway flats and there was plenty of government land there, which was afterwards proven to be of enormous value for petroleum. My brother located some land there and I was in with him. We started a well up there and gave it up; thought it was too deep.

The Standard Oil Company has it now. If we had had the capital to do it with we could not have drilled it that deep in those days. We didn't have the facilities we have now. If we drilled a thousand foot well then it was a very deep well. We struck along where there was shallow territory.

In 1901 oil was sold in the field for one dollar a barrel to other rigs. There was not any of it hauled out. As soon as drilling was suspended there was no sale for oil and drilling was suspended because the oil fell off to 12 or 15 cents a barrel about 1903 or 1904.

I think there were about 281 wells along the outcrop from six miles west of McKittrick to Sunset, in 1904. There had then been a large increase in the number of wells since 1901 and the wells had gradually gone down the line of contact, down the slope into the valley for some distance during that period.

[1712]

I know that from McKittrick, or even down further northwest than that, I might say, from Coalinga to Sunset along the eastern flank of the Temblor Range where the surface wash comes up and makes a contact with the range itself, that for many miles here and there are seepages and croppings of oil sand and that fact was well known in 1900 and 1901 and it was well known that the cropping of sand there showed a dip or plunge at a gentle angle, off into the valley towards the east from Coalinga to Sunset, generally; and in addition, I might say that it was known

for many years before that time that there were vast quantities of asphaltum about McKittrick where the formation was jammed and broken, showing an enormous natural waste of petroleum. There were evidences there of liquid asphaltum in pools as early as 1870 and '75, where the carcasses of animals had become mired and left. This indicated to my mind, as early as 1901, that the oil horizon extended a good many miles along the flank of the Range from Sunset west past McKittrick, and extended, generally, down towards the valley off of the range there where the line of contact was.

I have been in the Buena Vista Hills. I think they are analogous to the Elk Hills in natural structural conditions. They look a good deal alike. The formation of the Buena Vista Hills, taken in connection with the oil seepage said to exist in Section 11, would indicate that as a favorable place for the accumulation of petroleum, I suppose. It is so considered now, since it has been proven. **[1713]**

In 1901 I would have regarded either the Elk Hills or the Buena Vista Hills as a favorable spot to locate lands for oil if I had found an oil seepage or an oil outcropping there that I was sure of, and competent oil men of that day believed the same thing.

RE-DIRECT EXAMINATION.

I never saw an oil seepage anywhere in the Elk Hills. I have seen what was called an oil seepage there. It was not at all similar to the one in Township 11-20, in the Midway. Prior to 1904 the Buena

Vista Hills were not regarded by oil men as a favorable place for the accumulation of oil. None of them would go over there to drill. My present opinion of the Elk Hills is not based alone upon my examination made in 1901 but is also based upon the wells that have been drilled there. **[1714]**

SAMUEL SHANNON, a witness called and sworn on behalf of the defendants, testified as follows:

DIRECT EXAMINATION.

I reside in Berkeley. My place of business is in San Francisco. I am engaged in banking and in the oil business. I first got into the oil business about 1898 in Coalinga, and remained in the business until about 1907 when I was out of business for about two years, and engaged in it again in the Midway field.

I was General Manager of the different companies in which I was interested. The Twenty-eight Oil Company, the Hanford Oil Company, the Oil City Petroleum Company, the Forty Oil Company, the Oyama Oil Company and the Rico Oil Company. The properties of these companies were all situated in the Coalinga field except that of the Rico Company, which was situated in the Midway field. They were all producing companies.

I have, in a measure, had experience in examining land for the purpose of acquiring new oil territory, only from a practical point of view, not from an expert's point of view. I am by no means a geological expert. I think I went into the Sunset field about

1904, and somewhere along that period I went in the Temblor district, and also in the McKittrick district, and about that time I was in the Midway district. The oil development then was principally in the Sunset and McKittrick fields, fairly close to the Hills.

It was the impression among oil men at that time that oil was situated or could be found close to what you would call the West Side Range; I think it is designated the Temblor—the main range running down west of McKittrick.

I am familiar with the Elk Hills. They were not discussed amongst the people as an oil territory at that time. I first went to the Elk Hills about 1909, I think. I was in the lower part of them at that time, about half way back towards the [1715] upper end. I went there for the purpose of looking over those hills to see what prospect they might contain for oil. My attention was attracted there by the fact that other people were going in. I believe there had been a well drilled by Captain Barneson, I think, where they had got some oil in the Buena Vista hills. I went over and looked at that well before I went to the Elk Hills.

The Elk Hills was simply barren country at that time, with no development. I only paid attention to the Elk Hills for a few months, and acquired some lands there, and then left it to others to take care of. I have not been in the Elk Hills recently. I was there, possibly when one or two wells had been started.

I was induced to go into the Elk Hills by the fact

that other people were going in there. I went with the idea of probably acquiring some lands, thinking that perhaps lightning might strike there. That was about the only reason I can assign for it.

I acquired some interest in property in section 6, 31-24, and in section 28, 30-24. There were several gentlemen interested with me—T. J. Hart and Frank Helm. We put up some derricks there and some houses, and did some general work, but no drilling. I didn't regard it as very good territory to drill in. I simply let the property remain there after spending about eight or nine thousand dollars. We have not done assessment work on the property for the year 1912. The opinion of my associates and acquaintances is unfavorable as to whether or not the Elk Hills are regarded as oil territory. I certainly would not advise anyone to invest any money in the Elk Hills at the present time in the hope of finding oil.

CROSS-EXAMINATION
of
SAMUEL SHANNON.

I have no business relations, directly or indirectly, with the Santa Paula Consolidated Oil Company, the Zier Oil Company, the Fresno-San Francisco Oil Company, the Penn.-Coalinga Petroleum Company, the Coalinga Pacific Oil & Gas Company, the Commercial Petroleum Company, the Aztec Oil Company, the Guthrie **[1716]** Oil Company, the Confidence Oil Company, the Maine State Oil Company, the Associated Pipe Line Company, the Section 7 Oil Com-

pany, C. F. Iredell, I. L. Briner, Julius Fried, J. J. Vincent, G. E. Shore, Oran G. Myers, W. F. Porter, O. Scribner, C. A. Murdock, George W. C. Baker, W. W. Machen, M. L. Woy or M. Madzen, either at the present time or at any time in the past, except such business as may be possibly transacted by them through the bank of which I am president.

I don't know how many wells there were from McKittrick, just west of McKittrick, along the line of the Temblor Range on the east flank, down off into the valley, for a distance from six miles west of McKittrick to Sunset, in December, 1904. My general knowledge was obtained from looking over the country. I din't attempt to try to find out with relation to the number of individual wells that were there. There were quite a number of wells in the Sunset district, and also in the McKittrick district, but I cannot give the number in particular sections of localities, and I am not prepared to state whether there were more or less than 281 wells. Between that time and the time when I visited the country again, the wells had gradually extended into and across the flats, and into the Buena Vista Hills. I did not see any wells in the Elk Hills in 1909. I found a little oil sand in sections 32, 30-23, in the Elk Hills, which we assumed had every evidence of being an oil sand. I am not prepared to say that it was an oil sand. I visited that section and examined it myself, personally. It had every evidence to me that it was an oil sand, although it didn't have the same characteristics that

you generally find in the West Side field in relation to oil sands, because it had nothing in it—it was absolutely dry. I refer to the oil seepages or croppoings of oil sands along the main range in this comparison, which extend in a generally northwesterly and southeasterly course along the east flank of the range from about **[1717]** Coalinga down to Sunset, at different places. I think there would be some difference between sands discolored by a 28 gravity oil and the deposit left by a low grade oil. The low gravity oil would evaporate out and leave the sand in a much cleaner condition than the heavy oils.

The Elk Hills are a desert country, not absolutely devoid of a desert vegetation, but of a desert character; a region of very light rainfall, and sparse vegetation. The Elk Hills are a barren group of hills, somewhat similar in appearance to the Buena Vista Hills. They have a similarity, but run down in different directions, and have pretty much the same characteristics.

I think it was in the spring of 1909 that we acquired property in section 6, 31-24, and section 28, 30-24, and built our derricks within a day or two of sixty days following that. We did no drilling. Never prosecuted the work further than the building of derricks.

I remember the withdrawal orders of the Secretary of the Interior of September 27, 1909, and July 2, 1910. They created a good deal of talk, but I don't believe the withdrawal deterred many that were operating in the Elk Hills at that time from continu-

ing operations; that is, that were in actual active drilling at the time the order was made. It had a very depressing effect upon persons who had not begun drilling, but I think some of them went ahead and expended their money in development anyhow. In addition to the possible effect of the withdrawal order in preventing us from acquiring title, our claim was, I think, contested by other mineral locators, in the court or in the land office, as to section 28. I know that Mr. Wible set up a claim against the people who had the prior location on the land who dealt with us in relation to acquiring title to it, and so far as I know they are now in possession of that section, but I don't know that they are. **[1718]**

The derricks were put up in good faith for the purpose of drilling a well from one to five thousand feet deep.

When we went into the Elk Hills we seriously meant to go ahead, or to try to obtain someone else who would go ahead with development.

I decline to mention the names of the persons who were associated with me for the reason that I don't know whether they would want their names mentioned or not.

Our interest in the land was not necessarily acquired because of the fact that it was adjacent or close to the oil sand showing in section 32. I think I would have gone ahead and made the same arrangements in the absence of any oil sands that I might have found there under the circumstances surrounding that par-

ticular section of the country, and the activity that was then going on. We followed others who had gone in there.

REDIRECT EXAMINATION
of
SAMUEL SHANNON.

I made quite a little effort to enlist somebody to enter into some kind of a contract with me whereby they would go ahead and take over the property and drill on it, and I tried to sell it to several different people. I tried to sell it to the Associated Oil Company. I tried to enlist the interests of the Union Oil Company into going there, but I did not succeed in getting either one to take any interest in the property. I presented the matter to the Standard Oil Company with the same result.

The Associated Oil Company enlisted themselves in regard to section 28, in some sort of manner, to try to get the title straightened out that was in conflict with prior localities—I don't remember just exactly what it was. I know from my general knowledge of the situation that that Company was at one time trying **[1719]** to harmonize the conflicting titles between us and the Eight Oil Company. That was in the interest of themselves as well as us.

U. S. WAUGH, a witness called and sworn on behalf of the defendants, testified as follows:

DIRECT EXAMINATION.

I reside in Berkeley, California, and am engaged in the oil business. I went to the Kern county field

in 1898. In the fall of 1899 or 1900, I organized a company and started to drill in the Kern River field, and operated there for some little time. In the meantime, however, I looked around over other parts of the county, the West Side. I have been operating more or less since that time. I went to Maricopa in the Sunset field during 1900. I did not go to McKittrick on my first trip. I went up north of Buena Vista Lake; went up by San Emedio, and back over the lake and the Buena Vista hills, and the south side of the Elk Hills, and between the Elk Hills and the Buena Vista Lake.

I was in McKittrick, or as far north as McKittrick, prior to January 1, 1905. I made a half a dozen or more trips there. Up to 1905, I had an interest in the Sunset, and had a homestead on the northwest quarter of 24, 32-23, in the Midway, and spent quite a little time there. There were in the Midway possibly at that time, five mells on section 25, 32-23, and possibly three wells on section 5 in that township. That was all the development between there and McKittrick. From there down to Sunset there was a well drilled below Twenty five Hill,—I have forgotten the section. Between Sunset and Twenty-five Hill a well was being drilled, but they hadn't reached any oil at that time; subsequently they did.

At that time the general impression amongst oil men on the West Side was that the oil kept pretty close to the edge of **[1720]** that ridge of hills.

I know the Hills called Elk Hills very well, and so

far as my conversation with oil men is concerned, it was generally considered that it was very doubtful whether the Elk Hills were oil lands; in fact they didn't consider it as an oil field at all, or that there was a possibility of getting oil there. I was over in the Elk Hills, on the East Side of the Hills. The road to Bakersfield skirted the north edge of Buena Vista Lake, and follows around the Elk Hills quite a distance to where it crosses the river or canal at Cole's Ferry. This is as far north as I have ever been in the Elk Hills. I followed the road on that side. There is a canyon where the Elk go up, almost due north of the lake, say, the northwest corner of the lake. I was up that canyon about two miles a couple of times, into the Elk Hills, in 1903, to look it over for oil.

In 1903 knowledge came to me of locations in the Elk Hills. A man named Frank Webster in Bakersfield, wanted to know if I wouldn't want to go in with him and drill a well about two miles north of the lake, in the Elk Hills. As a result of my going in there in 1903, I didn't want to consider that property.

At that time I didn't go into any portion of the Elk Hills further west. Subsequently, possibly in the spring of 1910, I saw the more western portion of it. There were a couple of rigs built in there then, and I think they were drilling in one. I don't know the name of the company that was in there. I did not at any time acquire any lands in the Elk Hills.

I don't know that the question as to the depth to

which a well could be economically or profitably sunk was discussed by oil men up to 1905, but I know that wells twelve to fourteen hundred feet were considered pretty deep, and they didn't try to drill any deeper than that.

I had interest in property in the McKittrick district, **[1721]** in section 12, 30-21, which I acquired in 1908. The general opinion amongst oil men there at that time as to whether the Elk Hills were oil land, was about the same as it had been in earlier years. The Elk Hills have been discussed ever since we knew about oil in the West Side. Attention was first directed to the Elk Hills in the spring of 1910 in the sense that people were going in there and actually beginning development work. I don't know what really caused the excitement at that time. I think the discovery of oil in the Buena Vista hills caused people to go into the Elk Hills.

I know of a number of wells in the vicinity of McKittrick where water was found. I don't know that I could tell the wells. I could point out on the map where one big water well was that flowed there for months and years. It as almost due west, maybe a little north from McKittrick, not very far from the oil wells. The water contains some sulphur. There was quite a little water developed back of McKittrick west of the fields. It was piped to the Midway fields by the Santa Fe Oil Company. I think it is called the C & C Oil Company. It was piped seven or eight miles, possibly further, and I believe it is being used at the present time, and was splendid water.

CROSS-EXAMINATION
of
U. S. WAUGH.

I did not take up a homestead in section 24, township 32-23 for the petroleum contained in the land. That was the ulterior motive, but it was thrown open by the Interior Department as agricultural land. That was the purpose that prompted me to pick out the homestead. We all did it for that purpose. I never made proofs and acquired title to the land. I spent one or two [1722] nights on it every thirty days myself. My residence was where my wife was then living, in the Southern Hotel in Bakersfield. I knew that I could not without a criminal violation of the law, acquire patent for a homestead unless I made my bona fide residence on it for a period of five years, or commuted after two years; I made my bona fide residence on the land; I had permission from the Land Office that if my wife refused to positively live on the land, and I could get her affidavit to that effect, that I wouldn't have to have her on the ground, and I certainly got her affidavit. It is absolutely so that I never myself lived on the land more than one or two nights in thirty days. I had the land about six months and was contested by the Santa Fe Oil Company, or the C & C Company, on the ground that the land was mineral, and that I hadn't lived up to the laws as required by the Homestead Act. I didn't know the lands were mineral—I felt pretty sure they were.

The Department of the Interior man came through the country there and opened up a portion that was oil-bearing, and another that was agricultural. He drew a line and said, "This is open to homestead, that is mineral." We went along and took up what was open to agriculture. We were authorized by the Government to take it as agricultural lands.

PAUL W. PRUTZMAN, a witness called and sworn on behalf of the defendants, testified as follows:

DIRECT EXAMINATION.

I live in Berkeley, California, and am a chemical engineer but devote my attention entirely to oil. I am not a graduate of any institution. I have been engaged in that business since about 1898. I am associated with my father and was in the employment of the State Mining Bureau in 1902 and 1903 **[1723]** and from the early part of 1910 up to August of last year. I am an amateur geologist, but not by profession. I don't claim to be an expert geologist.

In connection with my official duties in the State Mining Bureau, I visited the oil fields several times. The first time, I think, was in the latter part of 1902. I was there about 35 days at that time. Prior to that time, I had done considerable preliminary work. I took all the maps that were available at that time and had for some time previously been keeping the field index, an envelope index, clippings from the newspapers and such information as came to me. In saying "newspapers", I mean the papers devoted to oil

and mining; and I used the published maps as a basis and drew my own sketch of the fields, showing on them such data as I had collected. Then I took those maps into the field and corrected them, the idea being to get the greatest possible results in the shortest possible time.

I went from Sunset through Midway to McKittrick, and through McKittrick and Kern River and Coalinga, and was, for about a week out of that time, in other fields in southern California.

I used as a basis, principally the maps published by Barlow and Hill and Hedges and Austin. Those maps were most complete. I got small maps of different parts of the field from advertisements and prospectuses, scattering information from all sorts of places. But those were the largest complete maps. Banner, Denny and Company had very excellent maps of the Kern River field.

My recollection is that I first went to the Sunset Section on that trip; that is, it was Pioneer postoffice. It is called Hazeltown now. I have forgotten what the name was then. It was Sunset, anyhow, the southern end of the field. The railroad station was Sunset. **[1724]**

As to where I went after reaching Sunset, and as to just what I did in carrying on my work, I will say that it has been a good many years ago; I only have a rather vague recollection as to what I did. But I remember being in the extreme southern end of the field on what we call the Austin & Eldridge proper-

ties, Sunset Queen and Earl Crude. That is clear down at the south end, south and east of the old Jewett & Blodget refinery. Then I was around the refinery and as far to the west at that end of the field as any developments went, and to a certain distance out on the plain. I don't remember how far out I went. Those rigs were all shut down at the time. There were four or five rigs which had been working out of the flat, but I think at that time they were all shut down. And then I worked up north; I remember being on the California Fortune. I think I was up there twice. And then I was down at the Lucky Boy, the Arcata and Raisin City.

The last time I was out in the Sunset field I went out through the Midway and took practically a straight course through the field, stopping at the leases which were along the road. I was at the Kern Crown. I drew a line from the Old Mt. Diablo wells to the Midway of Oregon; I took practically a straight line through the field. That was then the developed part of the field. I went straight up the center of the line of wells and visited the leases which were close to the road. I didn't go off any distance on either side. As to what steps I took to acquire information as to the properties that I didn't actually visit in person, I will say that I looked for their superintendents wherever I could find them. A number of those wells were shut down at the time, and you would be more likely to find their superintendents down in town in Sunset or McKittrick than you would on the lease,

and if I found that a superintendent was not at the lease, I would not go on that lease. I would hunt for him somewhere else. And generally I tried to get hold of people who were best posted as to the condition of [1725] the fields.

I was trying to find out, principally, the developments which had taken place. We were trying to locate the wells as accurately as possible. And, particularly, we were very anxious to discriminate correctly between wells that were actually capable of producing and wells that were certainly abandoned, practically abandoned, and wells that were merely shut down. At that time there were a good many wells which were shut down, and their status as to whether they were really capable of production or not was rather doubtful. And then, personally, I was trying to find out everything I could about the country. It was the first long trip that I had made into the country and I was trying to post myself about it as thoroughly as possible.

From Midway I went through McKittrick where I remained three or four days collecting data of the same character.

As near as I can remember, it was about ten days from the time I started at Sunset until I had completed my work at McKittrick. As to what information I received on that trip as to where oil was supposed to be, I will say that I don't remember what definite inquiries I may have made. Of course, oil men always talk more or less about those things. I

was seeking such information, if I could get it. Any information I would have gotten in that way would be hearsay. The oil was in sight in certain portions of the field, which are shown on the maps; that is, oil had been developed there; and opinions differed as to how far out the oil went. In Bulletin 32 of the State Mining Bureau, I summarized the information which I got on that point. That is to say, I gave my opinion as to the extent of the field as shown by—as it could be prospected from developments at that time, and that information, of course, was based on what I learned in the field. It was not based upon my opinion as a geologist.

The Bulletin 32 to which I have referred, was prepared **[1726]** entirely by me, with the exception of the table of analyses on the back cover. It is entitled, "Production and Use of Petroleum in California," and is dated 1904, and published by the California State Mining Bureau.

The map appearing on page 38 of that bulletin, entitled "Sunset Oil Field," was prepared by me from the field investigations I have already outlined, and emboides a correct representation of the result of my investigations at that time. The same is true as to the map opposite page 40 of that bulletin, entitled, "The Midway Oil Field"; and the map which immediately follows it entitled, "McKittrick Oil Field" and of the other maps of different districts that appear in this bulletin, except the Los Angeles City map.

Counsel for the defendant at this time offered in

evidence all of the bulletin from page 1 to the bottom of page 49.

The witness, being questioned by Mr. Mills, attorney for the plaintiff, as to the competency of this exhibit, continued as follows:

When I stated that I prepared the map opposite page 38 of the bulletin, I meant, literally, that I drew it. The information embodied was gotten in the way that I have stated. I took all the published information I could get and from that prepared a map, which I then took into the field and corrected. I don't pretend to have made a survey of the field. The map is a compilation from other maps, checked up by field observations, by driving along the road, but not with surveying instruments. I didn't take surveying instruments or find the corners of the Sections. As to that, it is not essentially a compilation of other maps, for the reason that the data accumulated by compilation was checked by the information of people who did know the corners. For instance, if I wanted to find out whether I had correctly located a well on the southwest corner of Section 6—I am referring now to the Sunset [1727] map—I would not take instruments there and locate the well and locate the corners and find out whether it was correctly located on the map, but I would find, if possible, the superintendent of that lease, or if not possible to find him, some one who was thoroughly acquainted with the country, and show him my map and ask him whether, according to his information, the well was correctly

located. Or I depended upon what friendly neighbors said as to the location. I had no personal knowledge as to the exact location of the outlying scattered wells with relation to the parts of Sections, but I didn't mean in my statement above, to say that I didn't know the locations of some of the Section corners in other places. I didn't go out and find corners but in very many cases the corners were perfectly evident and could be seen. I can not state at this distant time what corners I did find.

The question mark in the northwest corner of Section 6, Township 11-23, relates to whether the well was drilling or was abandoned and does not raise the question as to its location.

Mr. Milles, attorney for the Government, at this time objected to the introduction of the Bulletin referred to "because I have not had time to examine them further than merely as to their competency because it appears now from the testimony of the witness that they pretend to no accuracy whatever as a picture of the field, but are the results of compilation from two or three different maps of the West side field, together with prospectuses of oil companies, which are notoriously inaccurate, and of which the Court will probably take notice, and from newspaper clippings and neighborhood gossip. I reserve the right further to object to the reading matter because I have not the time now to read that over, unless you want to take the time".

Thereupon, Mr. Lewers, Attorney for the defend-

ant, replied: "I consent that you may take such objection by a motion to [1728] strike hereafter."

The Bulletin referred to was then offered in evidence and marked "Defendant's Exhibit 13".

The witness, being questioned by Mr. Lewers, continued as follows:

The Bulletin was published and circulated as an official document of the State Mining Bureau. It was circulated mainly in California, though a good many copies of all Bureau publications go East and go to Europe.

At page 41 of the Bulletin, under the head of "McKittrick", I was referring to the main hill range on which the older wells were located, the hills on which, for instance, the Dabney wells are located and the parallel range which is now known under the name of the "McKittrick Front". I didn't by that language include the Elk Hills. If I saw the Elk Hills on that occasion when I was collecting information for the purpose of preparing this bulletin, I didn't recognize them; I didn't know them under that name. I didn't go into them. My attention was not directed towards the Elk Hills by anyone I met in response to my inquiries as to oil territory.

I started the preparation of the matter for this bulletin immediately after my return from that trip. The writing on the bulletin was finished during 1903.

The statistics mentioned in the first part of the bulletin were collected and the summaries there given, were made by me. As to how extensive my inquiries

were made in the field, for the purpose of determining the location of the wells as indicated on the map, and also their character, whether abandoned or drilling or producing, I will say that I devoted as many hours of the day to it as I could find anyone awake. I visited almost every location where any oil was being produced. Many of the abandoned wells I did not visit. I got information as to the depth of the well **[1729]** from the statements of parties inteersted in the well, who had direct knowledge.

I obtained information as to the location of a given well in any particular Section or Township by making inquiry from parties who were supposed to have first-hand knowledge in cases where the lines were not plainly to be seen on the surface. I got this information from superintendents, drillers, tool dressers, pumpers. I got more information from pumpers than from anyone else.

Preparation of this data was entirely for public use. I never made any private use of it, whatever.

CROSS-EXAMINATION
of
PAUL W. PRUTZMAN.

The Elk Hills and the Buena Hills are not strictly parallel with the hill-range situated west of McKittrick. They are very close to it. They are parallel to the hill-range which stands north of McKittrick.

When I said in the bulletin mentioned, that "it is probable that the parallel hill-ranges, which are remarkably regular and persistent, are of anticlinal

formation, but such anticlines, if they exist, are certainly much folded and the productiveness seems to be largely determined by the presence or absence of these breaks", I was not referring to the Elk Hills or the Buena Vista Hills for the reason that they did not come strictly opposite McKittrick, to the best of my recollection. I had never visited those hills at that time and knew obsolutely nothing of them. I was referring there, I feel very sure, to the range of hills lying opposite Olig station and the main range of hills on which the development work had been done.

My answers on questions of geology would be of no value, whatever. I am not a geologist. I believe I took that statement **[1730]** bodily from a previous publication of the Mining Bureau,—though even of that, I am not certain. I have a general idea that the words "middle Neocene" mean,—but I would rather not be asked questions on geological subjects. The total amount of space devoted to Geology in that Bulletin is, I should judge, about a page; and, as I say, I think I took those statements bodily from previous publications of the Bureau—from publications by W. L. Watts. I have had occasion since then to revise my information on that subject very considerably. I would not want to follow some of the information I had at that time. I am perfectly willing to respond that I do not know what "middle Neocene" is or what "upper Neocene" includes. I know what an anticline is.

CHARLES A. HIVELY, a witness called and

sworn on behalf of the defendants, testified as follows:

DIRECT EXAMINATION.

I have lived in Coalinga ever since 1908, and am now employed by the Kern Trading & Oil Company as Field Superintendent of the Coalinga district.

I have been connected with the oil business since 1900, and began my work in that connection in McKittrick. I was employed at that time as bookkeeper for oil records, etc., by J. B. Treadwell, who was General Manager for the Company at that time.

I left McKittrick the latter part of November, 1905, and during that time I was acquainted with Professor Josiah Owen. I first met him in the fall of 1902. As I understood it, he was geologist for the Company; was General Superintendent of oil interests under Professor Dumble. He used to make the fields pretty near every month. He did most of the work in the geological line out of McKittrick and equipped his wagon and supplies from the K. T. & O. camp. I have never been in the Elk Hills. **[1731]**

Professor Owen made the entire field, from McKittrick to Sunset and Midway, and then to the west and north, out by the Devil's Den, and also the McKittrick front, and he was examining the Elk Hills country.

I only know that he examined the Elk Hills country from one statement he made to me, I think sometime in the fall of 1904 or 1905. He came into the office one evening after he had been out a couple or three days,

very tired, and said that he was all worn out from horseback riding, and that he had been over every foot,—or some expression of that kind,—of what is known as the Elk Hills territory, trying to discover some indication of oil. He told me he was unable to discover any indications which led him to believe that there was any oil in the Elk Hills field.

I know that he had been in the Elk Hills field prior to that, but he never mentioned it to me; and I think perhaps on this particular occasion he had possibly put in two days in that field.

Mr. Owen was very close-mouthed in talking about what he was doing. If you got any information out of him you generally had to pull it out, as far as I know. He never talked of his business to me, only so far as the operating and drilling of wells was concerned on our particular property, and he never discussed the geological conditions of the surrounding country—rarely ever.

I left McKittrick in the latter part of November, 1905, and went to the Kern River oil fields, and remained there until I went to the Coalinga fields in November, 1908.

During the time I was in McKittrick, from 1900 to 1905, my recollection of the Elk Hills property was that it was of no value. There was very little doing in investigating the property, and I never heard much of anything said there until after I got to Coalinga in 1908 or 1909. It was generally conceded that the [1732] property was of no value. The only way that

I can determine it to be by the name of Elk Hills is from the fact that a great number of elk used to roam in those hills, and they have been spoken of as the Elk Hills on that account.

I first began work in connection with actual drilling of wells in the summer of 1903, probably, at McKittrick, and since that time I have been at the head of the drilling of wells in all the fields I have been associated with, with this company, from the McKittrick to the Kern River field and the Coalinga fields. The wells have all been drilled under my supervision.

At the time I left McKittrick the producing wells were from six hundred to approximately ten hundred feet deep.

At the present time in the Caolinga field, the deepest pumping well I know of is probably three thousand feet. The Mohawk No. 1, a flowing well, is either 3860 or 3960 feet deep. The depth from which oil could be pumped under present conditions with the best available appliances would depend entirely upon the amount of oil the well might produce, and also on the viscosity or gravity of the oil. In a very light oil you could pump successfully a well much deeper than you could a well of heavier oil, for the reason that the viscosity or lifting of the pump carries more weight, etc., and the rods get troublesome and cause more trouble than a well that produces lighter oil. But it is generally conceded that unless you get a flowing well, after you get four thousand feet deep,

it is difficult to operate. We figure that the deep wells will be the flowing wells; otherwise, we would not drill them, and we would not drill a well 4000 or 5000 feet deep for the purpose of pumping it, for the reason that it is too expensive. It does not pay to keep the well in operation.

CROSS-EXAMINATION
of
CHARLES A. HIVELY.

The Kern Trading & Oil Company, by which I am employed **[1733]** is one of the defendants in this case. It was organized in 1903. It was called the Southern Pacific Oil Company at the time I became bookkeeper in 1900. That was the company of which Mr. Treadwell was the expert. It was then operating at McKittrick and Kern River. They hadn't started their operations at Coalinga.

At McKittrick we operated on Section 20, near the town, where we had some seven or eight wells.

We went down to what we termed the North end, but it was really west or northwest of McKittrick, and operated on the Devil's Den lease, called the Davis lease, in Section 13. In the Kern River field in 1900, the company had 480 acres on which there were quite a number of wells.

I knew Mr. Treadwell as our General Manager and Geologist, etc., in full control of this property,—operating lands for oil and acquiring new properties for that purpose. He had his office at the Kern River fields. I was never immediately under him. W. E.

Ott was superintendent under Mr. Treadwell, and I was under him. Mr. Treadwell was the General Manager in charge of the development of land for oil. I don't know that he had anything to do with acquiring new oil lands. I presume he did examine lands for the purpose of determining whether they were oil lands or not, and went back and forth between Texas and California. I don't think that we had maps in colors showing lands which were oil lands and which he was operating, but in later years, after Mr. Treadwell left and the management changed some, we have been showing in colors, not particularly oil land, but the Kern Trading & Oil Company lands in yellow. I don't recall the map which Mr. Treadwell is said to have kept. I never have seen it. He might have had one in his office in the Kern River field.

I think Mr. Treadwell severed his connection as oil expert and geologist of the lands of the Southern Pacific Company about 1903 or 1904. As soon as the Kern Trading & Oil Company **[1734]** was formed, Mr. E. T. Dumble succeeded him.

When I said that "Mr. Owen was the geologist of the Company, but he was General Superintendent under Professor Dumble of the oil interests," I meant that Professor Dumble was General Manager and Vice-President of our Company, and his home was in Texas, and Mr. Owen was made General Superintendent directly under Mr. Dumble, and, of course, we were under Mr. Owen directly. I understood that

Mr. Dumble was oil expert and chief consulting geologist of the Southern Pacific Company.

The Southern Pacific Oil Company might have been a distinct corporation. I didn't know. They used the Southern Pacific Company stationery largely, the Southern Pacific Pay Roll, etc. At that time we paid all our men with a sight draft on J. P. Treadwell. I made the drafts. That was the custom when I went there in 1900, but not at the time the Kern Trading & Oil Company was organized. Our records, all the books we kept there, were kept as the Southern Pacific Oil Company.

Mr. Owen did not keep an office at McKittrick. He had no headquarters of his own. He was often in McKittrick, and used to make the fields pretty nearly every month. I knew him from the first time I met him in 1902 or 1903, until his death. He put in his time in the mountains examining the country for oil, what he supposed might contain oil, in all directions around McKittrick. He had a camp outfit and spent considerable time with it. One camp outfit consisted of a wagon and two horses and a full camp outfit. He was equipped for camping out in the mountains. Sometimes he would be gone two or three weeks before he would come in. He would get his supplies at other points. I don't know what the nature of his work was when he was out with the camping outfit any more than that he was a geologist and looking over the ground. I always had an idea that he was examining lands claimed by the Southern Pacific Company more than anything else. [1735]

When he would start out he would say, "I am going through a certain territory of the country—the Elk Hills," or something of that kind—and further than that he did not say anything until the one particular time when he spoke of being in the Elk Hills, and aside from that particular time when he mentioned the Elk Hills, he did not say what he had discovered. Mr. Dumble and Mr. Owen used to go out in the field together every once in awhile after 1903. Mr. Dumble made trips from California to Texas three or four times a year. Mr. Owen was almost always with him. He and Mr. Owen used to go out together and go over the operations, etc., and go back probably the same day. I always met them with a rig at the depot, and did the driving myself—that is, when Professor Dumble was along—and took him over the field and our operations. They never went without me, unless they just walked around the property.

Mr. Dumble hardly ever stayed over one night, many times not that long—just between trains, sometimes four or five hours, between trains; get there about ten, leave at three.

I couldn't tell how many times Mr. Owen had been in the Elk Hills before he mentioned to me that he didn't discover oil indications there. I don't know that I ever knew of his being out there except two times, one time that he didn't tell me anything, and the other time. He mentioned once that he was going there, but didn't say anything about it when he came back. That might have been seven or eight months before

the time that he told me that he had nothing that would lead him to believe that there was any oil indication in the Elk Hills.

If Mr. Owen had come back and told me that the Elk Hills was oil-bearing territory, I would now testify to that fact as quickly as I have testified to the fact that he told me that he didn't think they were oil-bearing. I have no reason to think that I would not be able to hold my position **[1736]** as Field Superintendent of the Kern Trading & Oil Company if I had testified that he did tell me that they were oil bearing territory. If I could not hold my position without perjuring myself, I wouldn't want it with that Company or any other Company. It wouldn't be a question to me what they would think. I consider that it is not necessary to perjure myself for my employer or anybody else. I feel that I can make a living whether I work for the Kern Trading & Oil Company or not, and I am not a criminal.

I never heard that Mr. Haberkern had been out with Professor Owen in the Elk Hills. He might have been—I don't know. He was friendly with Mr. Owen.

Mr. Owen did not tell me that he had not fixed the anticlinal of the Elk Hills. I have never been in the Elk Hills, and don't know of an outcropping of oil sand in section 32, 30-24. Mr. Owen never discussed that supposed showing of oil with me, nor mentioned anything about the anticlinal structure in those hills—never mentioned anything to me further than when he came in tired that night and said that he had been

all over the Elk Hills territory, and he could find no indications that led him to believe there was any oil in that territory, or would be. I don't know that Mr. Owen was ever interested in the acquisition of title to even numbered sections of land interspersed with the lands in suit for minerals for the reason that the superintendents in the field were not informed of any knowledge of anything of the kind. Everything was kept from them if there was anything going on. We knew nothing about it. Ididn't know at that time that Professor Dumble, Chief Consulting Geologist of the Southern Pacific Company, was interested in the acquisition of the title to lands in the Elk Hills adjoining and interspersed with these lands in suit. I heard afterwards they had formed some kind of a company there—Section Eight Oil Company, and that Owen and Dumble were in it; but I knew nothing of it then. I don't know whether Mr. Wible and Mr. Haberkern [1737] were interested in that company or not.

Mr. Owen never discussed with me his discovery of an oil sand showing or oil seepage in Section 11 in the Buena Vista Hills. He in no manner discussed with me his geological investigations.

W. H. OCHSNER, a witness called and sworn on behalf of the defendants, testified as follows:

DIRECT EXAMINATION.

I live in San Francisco. I am a consulting geologist with special reference to oil. I have been engaged in that profession since the summer of 1907.

As to my educational training, I will say that I began my work with two Eastern institutions, Kentucky University and the University of Wisconsin, and finally with Stanford University. Before taking up the oil work, I was associated with the California Academy of Sciences. I was their geologist on an expedition to the coast of South America, scientific study of the Galapagos Islands and the outlying islands of the west coast of Central America and Lower California. We were on that expedition a year and a half, in 1905 and 1906. I am assistant curator of the Department of Invertebrate Paleontology of the California Academy of Sciences at present. Frank M. Anderson is the curator of that Department.

When I first became interested in oil geology, I was employed by the Kern Trading & Oil Co. My headquarters were at Bakersfield. My district was the Sunset, Midway, McKittrick and Kern River areas, districts, and it was my duty to work up maps, both property location maps for the wells, work up the history of the field, old prospect wells, and to work out in detail some geological problems of the neighborhood involving the districts **[1738]** that I named. I began that work in the summer of 1907 and continued it until the close of that year.

In the beginning of 1908 I was transferred to the Associated Oil Company and was with that company a year and a half, I believe. I was employed regularly in the Los Angeles field, the Puente hills, the Ventura district, as far north as Santa Barbara.

There were occasional trips made out of that district into other portions of the state. My special work was to examine prospects that were submitted to the Associated Oil Company for purchase or lease.

When employed by the Kern River Trading and Oil Company my work began with the study of the Kern River field, the study of well logs, and mapping out of the underground conditions. The work was then carried to the McKittrick field and the conditions in Sunset were a similar sort of study. I devoted a good share of the summer of 1907 to work in the McKittrick district.

As to the nature of the work in the McKittrick district I will say that it began with the working out of a property map showing the location of the development of the neighborhood and the distribution of all the old wells, that is, attempt to work out the location of the present development at that time, and the location of the old prospect wells. This was supplemented later on by a working out of the geology, the differentiation and general geological study of the district as related to the development.

In carrying out that work I examined the country about as far north of McKittrick as the beginning of what is known as the Temblor district—that would be about seven or eight miles north of McKittrick—and from there south as far as to three miles southeast of the old town of Sunset or Monarch.

I was working under the direction of F. M. Anderson and was very well acquainted with Professor

Josiah Owen. I first met him in the summer of 1907. **[1739]**

My work in that district covered the Elk Hills. I was engaged, as I explained, in working out the geology of the McKittrick field; and the relation of the Elk Hills and the Buena Vista Hills and the neighboring structures, and topography came in as a natural sequence in that study. I began with the McKittrick field as a center and carried the work to what is known as the McKittrick front. To show the sequence or arrangement of this work, the McKittrick front topography, a low-lying range of hills, is the beginning of the Elk Hills, and beginning there I carried the work on through to the large topographical feature called Elk Hills.

The work in the Elk Hills covered several days. I was in with a saddle horse and made trips back and forth. I was allowed my own time and opinions and privileges in working on the territory, and afterwards discussed the results of my observation with Mr. Anderson. I had no one, strictly speaking, assisting me in the field. Professor Owen did not assist me in any portion of my work in that territory. I had some conversation with him with regard to the Elk Hills in the summer of 1907.

Mr. Owen and I met on the the train and spent the whole of that day, and, I believe, two subsequent days in working in the Sunset field. We went to the old town of Sunset, and employed a team and went out out from there, and were making a little hasty study.

Mr. Owen had some territory near Maricopa, what was then Maricopa or Sunset, to examine; and in our day's work and the two or three days' work that followed, the conversation was brought up about my work, what I had been observing and what I had seen, what my conclusions were on the problems and the conditions in there; and the relation of the Elk Hills and Buena Vista Hills to the rest of the area was brought up. In that conversation we discussed the question of the Elk Hills and the relation of that to the territory, and Mr. Owen asked me what I thought about it; and **[1740]** I told him that I had not completed my work and hardly knew what to think; and Mr. Owen went on to say that he thought the Elk Hills would not be productive territory; that he thought the hills were too far out to fill. That conversation took place probably in August 1907.

I don't remember that I made any examination in the McKittrick district for the Associated Oil Company. I have made examination for other clients. After leaving the service of the Associated Oil Company I entered the advisory work and became the advisor of a number of investors, with special reference to oil.

My additional work in the McKittrick field was carried on for different clients, operating companies, and comprised a number of visits to the field, with special reference to development and proposed development, proposed purchases of properties, from 1909 until the present year.

In the summer of 1909 I made a trip in to the Elk Hills with clients who proposed a development there; with Mr. Dyer, Julius Fried and Mr. McReynolds. We spent a day in the Elk Hills. Mr. Fried wanted to chose ground in there for the purpose of sinking a prospect well. We went at their own solicitation, their own wish, their own idea that that might be prospective ground, but they asked that I make an examination for them to determine whether or not they should make the venture. They had been told that there were seepages there, actual occurrences of brea and dried sands, and they wanted to see for themselves, and if they were there, they wanted to have their scientific relation explained.

We went to an alleged seepage about the center of the hills, a short distance north of the highest point of the hills. That particular locality occurred—was constituted by a small amount of black, tarry-black, looking substance lying in patches or in beds on the soil. Part of the material had been exposed by a little surface work, a little tunneling, and proposed [1741] development work on it.

I determined that it was an occurrence of organic material, probably plant remains, occurring in a well-known plant horizon, near the top of what was called the Tulare formation. The Tulare formation is a soft, unconsolidated brackish water-occurrence, deposited during semi-tropical conditions, and it was natural for an occurrence of vegetable matter to be deposited at this time in such a place. It was not an oil seepage.

I made two visits to the Elk Hills subsequent to that time; to the southeast and south side of the hills, to the district which later had a development by the Balfour-Guthrie, the Hart Oil Company, and others.

From the examination I carried on in 1907, I concluded that the Elk Hills may have small scattering amounts of oil but that they would not be important from an economic sense. In stating my reasons for this conclusion in brief, I will say, the Elk Hills and the structure of which they are a part, lie east of an overturned anticline of Monterey shales. The production from the Monterey shales, the oil which we have known in California, is indigenous, has its direct origin in those shales, and must have passed eastward against the formations to impregnate the beds and the formations which constitute the Elk Hills structure. Such a thing would be quite impossible in any quantity. To carry the same condition further south, to the southern end of the hills, the Elk Hills leave the main range, the main occurrence of the parent shales, the Monterey, at a constantly increasing angle, constantly greater and greater distance away from the source of the oil. As you go in that direction the formations become regular again and sweep off the southeast from the Midway field, and as the formations become regular, the possibility of oil passing upward, occurs. The Buena Vista Hills, rising as a permanent anticlinal structure, stand as a barrier between the migration of **[1742]** oil from the west and the occurrence of the

Monterey shale to the east to the location of the Elk Hills.

There is a very narrow interval and probably a very shallow one between the south end of the McKittrick anticline, terminating somewheres near the bench-mark mapped upon the United States topographic sheet, and the beginning of the Buena Vista structure, I think a distance of perhaps two miles. Although the actual beginning of the Buena Vista structure is not definitely known, it can be estimated.

If the migration did take place from the west towards the Elk Hills, the most favorable place to find oil in those hills would be on the southeast side in and about two small local structures which are a part of the main fold and which are down on the southeast side of the hills.

In explanation of the reasons for the conclusion I reached and the structure of the country as I worked it out, I will say that "beginning with the old series of tertiary beds that comprise the eastern side of the Mount Diablo Range, the sequence up to the deposition of the white shales at Motnerey is complete, and forms one unit, practically. The oils held in the San Joaquin Valley, and especially in California, are to be referred directly to their relation to the Monterey shales, or to a shale like it, composed of essentially the remains of marine infusorial life or small minute life of marine growth. The shales were laid down in quiet waters. The life, the minute forms of life, are littoral, that is, they were laid down in waters of moderate depths along the shores. The condition of a for-

mation lying close to the Monterey, its productiveness, is governed by a number of conditions.

The productiveness in formations lying next to the Monterey are controlled by the generalizations mentioned. The beginning of the Elk Hills as beginning in the McKittrick front anticline, should receive this oil from the Monterey shales near. **[1743]** The structure of the Monterey there is a complex overturned anticline. We can think of an anticline as that uplift in sediment in otherwise horizontal beds which would have the structure or shape of the roof of a house. If one side of that house, one side of the roof, was turned back upon itself we would have a condition of an overturned anticline. It has something of the appearance of the letter "S' and comprises the entire area of the McKittrick field, beginning with the point at Frazer's Spring on the north of McKittrick and going as far south, approximately, as the bench-mark on the road about four miles south of McKittrick and is continuous between those points. The formation that forms the structure of this inverted anticline is the white shale of the Monterey, which was first laid down in a horizontal position.

The main uplift of the Coast Ranges occurred at what is called the close of the Monterey. It was at this time that the Monterey beds were highly tilted and received the complex structure and bending which they exhibit today. The Elk Hills were not in existence at that time.

The beds of the Monterey along the Temblor Range were originally horizontal and then they were sharp-

ly tilted. That tilting took place throughout the whole distribution of the Monterey shales and the formations underneath which formed the main bulk of our present Coast Range and the Mt. Diablo Range in particular.

A large inland arm of the sea occupied the present position of the San Joaquin Valley. The center of the field was filled with marine waters. The distribution of the Monterey shales can be carried as far southeast as to about the San Emidio Ranch, with constantly thinning occurrences and more and more occurrence of sands. It indicates that as the Monterey went further and further east it became more and more sandy until we reach the opposite side of the Valley around Bakersfield, and in there we **[1744]** find the equivalent of the Monterey time, its geological unit, composed of sandstone and sandy shales.

As to the methods employed to determine whether that represents the same period of time, I will say the formations are differentiated on several grounds. First of all, their physical appearance. But the most important correlation of beds in one district with beds in another is founded upon the occurrence of invertebrate fossils, that is, the marine shells and their distribution. They come and go in definite species and groups; they occur at certain places in our geologic formations and disappear again. Hence the importance of the study of those forms which bring the most definite cerrelation of geologic time of one area to another.

As to the situation where the Elk Hills now exist I would say that after the uplift in the Temblor Range at the close of the Monterey period, the indications are that the whole San Joaquin Valley was a gentle trough filled with marine waters, and the position of the Elk Hills in the neighborhood was then synclinal.

After the colse of the Monterey period and the updift referred to, the formation called the McKittrick was deposited. It consists of the detrital material taken from the neighboring hills, the Mount Diablo Range, and carried out into the waters of the San Joaquin Valley and deposited there in a definite formation beginning with sands, gravels, at the bottom, going up through to blue sandy shales and forming a considerable thickness. During this time the coast ranges are slowly rising—there is an elevation—and as they do rise the marine waters of the San Joaquin Valley, that area, are drawn off, and leaving brackish water, lagoons and occurrences of that kind. This marks the beginning of the Tulare formation.

The Tulare comes in as a part of the McKittrick, and **[1745]** comprises the top of the total thickness of that formation.

The material of the McKittrick formation came from the Mt. Diablo Range on the west and the material on the east came from, probably, the Sierra Nevadas. It came from higher elevations of ground existing at that time. It was the result of erosion. While such erosions are taking place the coarser

sands will be deposited near the shore-line and the lighter materials, the silts and thin muds, are carried further out and constitute the formation further in the valley. The deposits favorable for the accumulation of oil will be found close to the shore-line, or colse to the present occurrence of the Monterey shales on the north edge of the San Joaquin Valley.

As you progress away from the shore-line, out towards the center of the original synclinal valley, the sands become less and less in quantity and in their occurrence, until their probably total absence, and in their stead the thin shales, sandy shales, muds and clays are deposited.

I have made a study to determine the manner of the migration of the oil which accumulated or originated in the Monterey beds. These studies were carried on over the important districts and prospect districts of California. It is from the study of those places that we are able to determine certain generalizations which are, first of all, the oil will occur either within the Monterey shale as its original home or it will occur in a formation above, secondary to the Monterey and near it, according as the compression of the shales is within the shales themselves or the result of the weight of an overlying formation. The first step in that is that we recognize the Monterey in a particular place as being the original source of the oil and that this material in the Monterey was distilled off by one of the two processes of distillation, either a compression from above, as indicated, or com-

pression from within the shales themselves due to a tilting and breaking and **[1746]** bending of the shales.

Where we have a compression of the structure of the shales due to bending or folding, the oil is held within the shales, and does not migrate into the neighboring formations.

An excellent illustraiton of it is in the Santa Maria field, the relation of production there in the Monterey shales where the compression is within the beds to a production not far away where the oil has entirely left the shale and impregnated a formation secondary to the Monterey and above it. The specific examples are the Penel drawing its oil from the Monterey, and the area in Cat Canyon, Palmer and others, drawing their oil from what is called the Fernando, or the equivalent of the McKittrick formation.

The overturned anticline I have mentioned was formed before the deposition of all of the overlying formations and was close to the Monterey time, and its effect was to form a syncline immediately east of McKittrick. I have not been able to determine the depth of that syncline. It can be determined by drilling a deep well. I am familiar with the territory just referred to east of McKittrick and with wells drilled there; at least three wells with which I am familiar have been sunk in the synclinal trough lying to the east and north of the overturned anticline at McKittrick. The first is the Santa Susanna on Section 18, I believe. The most important well was, I think, in Section 2, the Leader well, drilled to a total depth of

2250 feet, if I remember rightly. I examined the log of that well and found the McKittrick formation at the bottom. It had not yet reached the Monterey formation.

The surface evidence of the last disappearance of overturned anticline as you progress towards the southeast is probably a short distance north of the bench-mark on the road between the McKittrick and Midway districts, about Section 2 or 3 of 30-22. **[1747]** By this I mean, that is the last surface evidence that the bed plunges towards the southeast, and that that structure continues for some distance and finally dies away to give place over there on the south to the normal structure again.

As nearly as can be determined from geological evidence, the Monterey beds in the Midway were at the close of the Monterey period and were in a normal monocline but steeply dipping towards the valley in one direction at quite strong angles. The monoclinal beds of the Midway district southeast of McKittrick, where they are normal, would mean a gentle depression in the area to the east, or an area of the marine waters where the McKittrick beds were deposited. In front of the McKittrick overturned anticline—by "front" I mean to the east or to the north—we have a very great depression, caused by the S-shaped structure of the Monterey beds. Mountain building is topography; neighboring territory, always depressions. Depressions are relatively great or small according as topography is sharp or gentle. The area

east of the overturned anticline would represent, then, a considerable depression, a very deep one.

The area east and north of the McKittrick structure was filled with water first.

In instances where the compression upon the Monterey beds is not formed as a result of folding or twisting in the beds themselves but comes from an overlying deposit, the migration of the oil is upward, both vertically and along the dip of the formation. It migrates and impregnates the overlying formation, as is the case in the McKittrick formation.

In the particular area of the Midway field, the deposits of Monterey shale contain some sands, but in very minor amounts,—small lenses, not in any marked thickness and not of a very great extent. The formation is essentially shale. Where there are stratifications of sand within the beds of the Monterey itself, **[1748]** the oil would tend to follow the laminations of the beds if the sands were thick and very porous.

After the upturning of the Monterey beds forming the beginning of what is termed the McKittrick, the deposits consisted of coarse gravels and sands at the bottom, followed by shales and clays above. The last sands and gravels at the bottom of the McKittrick formation would be the line of least resistance for any oil that passed into it from the underlying Monterey formation and it would pass into it with the stratification.

Geologically speaking, there was a very considerable interval between the upturning of the Monterey beds and the laying down of the McKittrick. That is

what is called an uncomformity. The geologic evidence indicates that at the time of the deposition of the beginning series of the McKittrick formation overlying the Monterey, shore-line conditions existed and the semi-tropical conditions I have referred to existed to the close of the deposition of the marine shore-line material which constitutes the McKittrick formation, there was a gentle drawing off of the waters of the San Joaquin to develop the Tulare or the brackish water semi-tropical conditions. I designate all the soft shales, clays, unconsolidated and containing brackish water fossils or fresh water fossils as the Tulare formation. That is the present surface of the Elk Hills.

The overlying formations would effect the migration of oil that had passed, if any did, from the Monterey beds into the overlying formations of the McKittrick. The important condition which affects the migration is that of a gentle monocline, gentle eastward dipping beds, of the McKittrick, which we will assume have already had the impregnation of oil from the Monterey. The petroleum would tend to rise along the gentle dipping beds towards their outcrop or their occurrence at the surface. The beds would cause it to do that. Formations underground are always attempting to **[1749]** segregate themselves owing to the porosity of the beds according to their specific gravity. Water, being heavier, takes possession further down the dip, or at greater depths, forcing the oil to rise to higher or shallower depths. It would rise to the high-

est possible point or reach the seepage outcrop at the very edge of the valley. For illustration, to make that clear, the oil would accumulate and would tend to rise on the west side of the valley until reaching a defined outcrop back of the Midway field. The east side might be explained by the occurrence at Kern River.

According to geological evidence, the Elk Hills were not in existence when this migration was going on, that I have referred to. The geological evidences are that the place where the Elk Hills are now situated was then a deep syncline, and there could be no oil in the syncline if water remained there in any quantity. California had a general period of disturbance in what is called the "Pleistocene Period" in the McKittrick and the Midway area, as represented by the Tulare time. That disturbance was very gentle, very slow. The uplift of the Buena Vista hills and the Elk Hills would form a favorable place for the trapping and accumulation of oil that was in the McKittrick formation overlying the Monterey in the area between the old shore-line at McKittrick and these hills. If the Elk Hills were fed with oil, the supply came from oil from the very top portions of the syncline. The Elk Hills approached the main range most closely at McKittrick.

The conditions existing at McKittrick during the period when the McKittrick formation was laid down would be favorable for the accumulation of water in what might be oil-producing sands. The three wells I have mentioned are proof that water was present in

very great quantities instead of oil. One of these wells, the Leader well in Section 2 near the place marked [1750] "research" on the map, was completed last year, I think. The shallower ones were sunk a number of years ago, I think as early as 1904 or 1905. I visited one of the wells in 1907, an artesian head of warm sulphur water.

As to the conditions found in the midway flats lying south of the Buena Vista Hills as to the presence of water, I will say that we have, between the anticline of the Buena Hills and the monocline of the Monterey shales to the west on the west edge of the Midway field, developed a syncline. Wells have been drilled into this syncline, and have come in with a phenomenal production, but I believe every well when continued to produce for any considerable length of time—a few months—developed an emulsion, and the emulsion indicates the presence of water in the syncline. That syncline is probably not as deep as the syncline of McKittrick.

I first reached my conclusions as to the structure of that country in the summer of 1907. I did not embody that conclusion in a report of any kind at that time. The reports began with the working out of maps, surface maps, property maps, showing the location of wells and field data. It was proposed that each area would have added to it the geologic data. The work was never completed because I left the service of the K. T. &. C. before its actual representation in written reports.

I did not consider the Elk Hills as valuable for oil

in 1907 and do not so consider them now. I believe I mentioned this conclusion in a conversation with Mr. Owen at that time and afterwards with Mr. Anderson.

I am acquainted with the occurrence of seepages near the contact of the McKittrick formation with the Monterey. That would be pretty well down on the eastward slopes of the Mr. Diablo range and extending from about five miles south of McKittrick, southeast, to beyond Sunset. I am acquainted with the seepages **[1751]** at McKittrick.

Having an outcropping, or a series of outcroppings, of asphaltum or oil sands revealed as they are along the western side of the San Joaquin Valley at intervals, for a distance of 30 miles, it would not be a safe geological assumption that oil will extend out at right angles from the range, a distance of fifteen miles, or one-half the length of the outcrop on the range, unless said statement was qualified by a detailed knowledge of all of the elements and conditions which might come in to upset any such statement in a broad way. The width of the oil formation does not always have a direct relation, geologically or practically, to the length of the outcropping found along the range of mountains.

After taking the situation as it existed along the west side, Kern County, with seepages at various intervals, and outcroppings of sand, from McKittrick to Sunset and in between, and after taking into consideration the geological surface structure, the Elk

Hills, the Buena Vista Hills, the McKittrick Hills and the entire surrounding country, I would not agree with the statement made by Mr. Veatch, that a geologist, in 1904, who did not conclude that the Elk Hills were valuable for oil did not know his business.

It would not be possible for him, in 1907, after having made an examination of that territory to have placed himself in the same position as to the conclusois I might draw that a geologist in 1904 would have reached, because there are a number of factors within our knowledge of West Coast geology which have been developed within the past few years, and as many of the fields have been developed, much scientific data and knowledge have been gained, and unless a man had all of that at his command he might not form the same opinion.

It would not be possible for a geologist to go into the **[1752]** Elk Hills in 1912 and entirely eliminate from his mind all impressions that had been made by wells sunk since 1904, by discoveries made since 1904 of which he has knowledge, and reach a conclusion, as a mental process, that would be the same as if he were there in 1904, utterly ignorant of anything that has taken place since that time. I am not aware that geologists attempt to do that.

Explaining a little more in detail as to the migration of oil at the close or following the close of the Monterey period and immediately after the uplift of the Temblor Range, I will say that the deposition of the beds of the McKittrick formation is marked by gravels and sands at the bottom. Above this are

the shales and the clays and the surface soil. The first migration of oil was upward and into the sands of the McKittrick formation. With the slow tilting of the beds, the very gentle angle of deposition between the McKittrick beds and the more steeply dipping beds of the Monterey underneath—on this gentle angle of dip the oil was inclined to rise, due, principally, to two reasons: The presence of its gas, the natural porosity of the beds through which the oil could migrate to a higher level, and the incoming of waters in the great depths further down the dip. As these waters encroached upon the sands they drove the oil to the higher levels and crowded an accumulation of oil in the gentle dipping beds of the McKittrick formation on the edge of the valley. The upward migration was so strong, the hydrostatic pressure and gas pressure so great, that considerable amounts of oil reached the surface and exuded in the form of what we call live seepages. The ultimate result of such a process was to take away from ground a short distance from the edge of the valley the oil which was present and to accumulate it in higher grounds on the very edge of the valley or close to the contact between the McKittrick and the Monterey formations.

In the formations in which the petroleum has migrated **[1753]** the water would take their position. In other words, there is a place in the monocline where you could extend or project the pro-producing sands and by drilling a well you would find the same sands which are productive high on the dip and at

the place where they were struck would be found to be filled with water.

That has been done in a great many instances to my own knowledge. After the uplifting of the beds of the Monterey there would be considerable migration within the bedding-planes of that formation themselves. It would be due to the natural lifting power of the oil, itself, due to gas, to the partings in the shales and to the pressure of minor amounts of sand. And the water would have an effect in the Monterey formations the same as in the other.

When I stated that there was an unconformity between the Monterey formation and the overlying McKittrick, I meant that "unconformity" is a term used to describe a discrepancy in the dip between two formations. Usually formations are of different age, of different composition, of different physical appearance, and represent an interval in time; in other words, after the lifting of the Monterey and before the deposition of the McKittrick formation, there was an interval of time and this interval was marked by the discrepancy called unconformity.

It is only relatively possible to determine what that interval was. It was a long interval.

There is a small unconformity near the top of the McKittrick where the Tulare is present, caused by the period of uplift and disturbance which began in Tulare time and was completed about Tulare time—which means that the beds which followed later on, the depositions have an unconformable dip with those older beds of the same formation, the Tulare.

There was a change during the Tulare period, itself. That is the time at which this uplift which creates the topography [1754] of the Elk Hills and Buena Vista Hills took place. That uplift is the same one that carries all California and involves the same beds; it is contemporaneous.

In the territory immediately northeast of the overturned anticline at McKittrick, the migration of the oil would be towards the west and towards the high ground during the period after the tilting of the Monterey beds and while the McKittrick beds were being deposited, or after they had been deposited. There would be a migration towards the Midway at that point, towards the high ground towards the west, no matter what direction that might be.

Mr. A. C. Veatch's statement was evidently founded on just half the story, when he testified in that part of the record, which reads as follows: "Q.—By Mr. Mills: Now, in the case of the Elk Hills, have you made any examination of those Hills with reference to their possible oil bearing value? A.—I have. Q.—What conclusion did you reach as to the oil character of the Elk Hills" A.—That they are oil land. I may say that my investigations were directed primarily to the determination of the conditions existing in 1904, and the conclusion is predicated on the evidence which existed at that time. In a general way, to outline the proposition, there are a series of porous beds and associated clays which are well designed on the one hand to afford a reservoir for the oil and on

the other hand to prevent undue leakage, which may be traced for many miles along the flank of the Temblor Range, the east flank in this case being the important one for this question. In that area there are seepages, which have been there from the beginning, which extend for a distance of over thirty miles, showing the persistence of the oil saturation in these various layers."

"Q.—Are they exposed at all in any way, those beds? A.—Yes. Q.—Whereabouts. A.—They are exposed on the east flank of the Temblor Range and may be followed there for a great many [1755] miles and the porous character readily determined. Now, taking this distance of seepages or (fifteen) thirty miles, which is, I might say, greater than that, but that is an area that is adjacent to this that is easily shown, it shows an impregnation of the oil strata extending at least seven and a half miles from a given center," which he later changed to fifteen miles. "Applying this distance of fifteen miles from the outcrop, it includes the Buena Vista Hills and the Elk Hills, and the only question which could remain regarding the oil value of the territory outlined in this way would be with respect to the synclinal areas, the valley lying between the Elk Hills and Buena Vista and McKittrick Hills and the valley lying beween the Buena Vista Hills and the outcrop along the front of the range. Both the Buena Vista Hills and the Elk Hills fall within the proven area, from geological determination."

To make a statement that because of distribution

of oil over a number of miles it must necessariiy go to a number of miles in other directions, is exceedingly unwise and lacking in caution, and if it were followed up by drillng, such as we have had to do upon our own opinions, it would be apt to be very disastrous. He forms an opinion, apparently, upon just half the evidence at hand. It is just such an opinion as is formed by the ordinary developer of ground, who is wont to draw straight lines between two points, or who, in the presentation of his ground, as a possible purchaser or developer of the ground, places the ground in front rank because of its proximity to something else. Proximity is one thing. There may be a great many other—or, there are a great many other factors to be involved; a great many. The simple assumption that you have an anticline is only one element in a long story.

The assumption that you can place here a mathematical conclusion for distribution of oil, is exceedingly half the story. **[1756]** It might assist Mr. Veatch's conclusion to assume that the seepages are all of one time; though I would not personally consider it so, and they are not all of the same formation. By that I mean that they occur—seepages throughout the distribution which he has mentioned, exhibit about three dfferent age horizons: An old one, the Eocene; and another one, in the Vaqueros, or Lower Miocene; and the third one in McKittrick time.

I don't agree with Mr. Veatch's statement found

in the record as follows: "Q.—You have heard it testified to in this case that one E. T. Dumble, alleged to be a geologist in the employ of the railroad company, defendant in this suit, and the late Josiah Owen, also alleged to be, by testimony introduced here, a geologist in the employ of the defendant railroad company, during times prior to December, 1904, were quite frequently in the vicinity of McKittrick, formerly called Asphalto, and one, at least, of these gentlemen, having made trips into the Elk Hills. Would you say, or do you believe, assuming these gentlemen to be competent oil geologists, that at that time, prior to December, 1904, and at that stage of development, they could have helped knowing the oil character of the lands in suit? A.—The geologic structure of the Elk Hills is so very evident—the hill, as explained before, is a structural hill—that any one a geologist standing at Asphalto would naturally and at once suspect the character of the fold. If that suspicion were verified by examination, as stated in your question, if the geologist had actually been on the ground, he could not have helped but know absolutely the anticlinal nature of the hill, and, from the development in McKittrick, must certainly have regarded it as an oil proposition." Because the witness has apparently followed his opinion upon the one condition, the one structural feature, a structural feature of an anticline known to be favorable and in proximity to oil. Such a statement, that is must necessarily be productive, is both [1757]

unwise and unscientific, because it leaves out of account all of the details of origin, migration, accumulation and historical geology and structural geology which might come in to upset the first assumption that the anticline would be productive. There are a great many places in California where an aiticline is in close proximity to the field, but the anticline does not in its heart hold the place which could give to it a productive nature. The experiment has often been tried by those of whom we may say, "A little learning is a dangerous thing", and who have learned to observe that an anticline has been productive—they have tried to carry that to an actual observation in the field, and the result is a further contribution to our knowledge of geology in that you must know the whole story and not one element of the story, but all of the factors, every one of them, so far as the structure, so far as all of the earth's history is revealed by the formation of the neighborhood.

There are two important considerations in estimating an anticline. The first one is, what formations are involved in its building? Are you dealing with formations which are above the oil horizon or below? How deep is this anticline? Does it affect profoundly the beds of the neighborhood or is it a superficial structure involving comparatively recent beds without involving those of deep origin and birth? And, third, even though the anticline is composed of the right members, the right geological units, the right sequence of the beds, beginning with the generic se-

ries, whatever age those might be, the question comes and must be answered as to that may have happened to the occurrence of oil after its original distillation from the shales to prevent its accumulation in the anticline itself—what may have happened. Those are a few of the elements that are to be concerned with the anticline itself, with the fold itself.

The presence of absence of sand within or underneath **[1758]** the anticline would either favor or prevent the presence of oil. The distance of the original shore-line from the Elk Hills at the time of the deposition of the McKittrick formation would have a very considerable bearing upon the thickness of the sands underlying those hills. The sands which constitute the bottom and bulk of the McKittrick formation and which are the first to be deposited are deposited closest to the shore-line, and the shore-line is along the present foot-hills of the Mount Diablo Range, marked by approximately the contact between the McKittrick formation and the Monterey formation as they are differentiated and plotted in the distribution upon the map. The sands are deposited along that contact, and, as you go further east, less and less sands and more and more shales, and muds and silts. I refer to the map accompanying the bulletin of Mr. Arnold.

The presence or absence of water in a given territory is a very controlling consideration in determining whether or not oil could get into a given anticline.

From the general geologic features of the Elk Hills

it would seem that their structure involves the late and superficial beds, the upper Tulare and McKittrick and the underlying Monterey formations underneath these hills would still continue toward the west, if the Monterey formation is not uplifted and folded and bent underneath them, and that would seriously interfere with the accumulation of oil under the hills.

There are a great many instances that have come to my own personal observation, of anticlines apparently favorable for the accumulation of oil that have not proven so.

For the benefit of making it clear, and choosing something which involves all of the elements—I concede that—to make it clear and make it have some bearing, we can take the structure of the McKittrick front anticline. That is a favorable structure. This structure is a low-lying ridge of hills just north of **[1759]** Olig, out in front of McKittrick, looking towards the north. The structure is favorable. It involves the proper sort of elements, formation elements, which are involved in the Elk Hills; and yet it is not productive in an economic sense.

In addition we could take the small subsidiary anticline in the Los Angeles field. You have there a formation producing, of a similar age, the same physical constituents, the same appearance as the McKittrick formation. It is called there the Fernando formation, but it is the equivalent. You have the main dominating structure to the north, the productive one; and to the south, nearer the Rose Maria, there is another

anticline involving a little greater thickness of bed and later formations, and non-productive.

The anticline I have just referred to was discovered by drilling. The surface in that case, is level, but the actual drilling indicates the structure, and also some surface evidences are indicated by seepages.

At this time the witness, for the purpose of illustrating the position of the overturned anticline at McKittrick mentioned by him, drew a plat or diagram, which was offered in evidence and marked "Defendant's Exhibit 14".

The witness, continuing, testified as follows:

The production at McKittrick is within the anticline, within the structure itself. The wells at McKittrick have encountered sand. It is not possible to determine the thickness of sand beds, accurately, by means of wells. Because of the dip in the sands varying so greatly that unless it was known exactly at what angle the wells pierced the sands and making allowance for the inclination of the sands, you could not determine just how thick they were. **[1760]**

CROSS-EXAMINATION
of
W. H. OCHSNER.

I was born in Kentucky and am 34 years of age; attended the Kentucky University about a year and a half, beginning in 1900; was then transferred to the University of Wisconsin from where I transferred to Stanford University because I was interested in West Coast geology. I studied geology in

both Kentucky and Wisconsin Universities and under Dr. Branner in Stanford University. He was the head of that Department and is the profoundest geologist in California. If Dr. Branner and I did not agree on a geological problem, I would be inclined to concede to Dr. Branner a more correct arrival at the final judgment, generally. It would depend upon the problem.

On the expedition to the Galapagos Islands, I did the work on geology and some biological work on the living marine and land shells.

I took the degree of Bachelor of Arts at Stanford University and also Sigma Si, which was given me for the work I did in South America on that expedition. That is a Greek letter or sigma of an honorary society to which members who have done original work in any Department of science may be elected by the faculty of the institution.

During my time in the college I was in the field in the summer of 1907 for the Kern Trading and Oil Company at the salary of $100 a month and my field expenses. I was rated as a geologist at that time and was employed in making an original map representing locations of all wells of a given district. I was able to determine, at that time, whether an oil well was actually producing oil or had been abandoned. I was fairly familiar with the general property of the K. T. & O. Co. in the West Side field. I don't know of any property they had in the Elk Hills. I don't know **[1761]** specifically about the ground which the K. T.

& O. held or owned at that time in 30-23 or 30-24, because the particular map I was working on dealt with the development of the McKittrick area, particularly, and did not deal with any other districts. I don't know of any property that that company had in the Elk Hills in 31-23 or 31-24. I believe they had some properties there. I don't know what they were, and they were never brought to my attention specifically, that is, they were never mentioned to me as particular holdings, describing sections or the locations of the grounds. The property they had in the Elk Hills would be in the odd-numbered sections. I never knew by what arrangements the K. T. & O. Co. operated upon the ground. I knew the legal title to the land was claimed by the Southern Pacific Railroad Company. I only knew that whatever leasehold the company was operating was confined in its area in the McKittrick field. I don't know and never thought of their operating in the Elk Hills. I believe it is due to the fact that the K. T. & O. Co. had interests in the Elk Hills that I went over there for the purpose of making a geological examination. I was sent there by F. M. Anderson who was practically the chief geologist for the field work of that company, and he told me, in August or September, to go over to that range of hills, I don't know that they were called the Elk Hills at that time, and see what I could find. He did not tell me how long to stay there. I was very much at liberty to use my own time, and perhaps ten days or two weeks were consumed in the trips

over that area. The K. T. & O. Co. paid my salary and expenses during those trips.

Mr. Anderson's predecessor as geologist for the K. T. & O. Co. was Mr. E. T. Dumble, who is the chief consulting geologist of the Southern Pacific Company. Mr. Dumble did not direct my operations, only in regard to a specific water problem that involved the wells in the neighborhood of what is now called the **[1762]** "Reward" property in McKittrick. He asked me to make an investigation of the possible origin of some encroaching waters. There was a small area or zone in there that was particularly affected by waters coming into the area, and he thought I might trace the responsibility to some particular well. I understood his request to do that to be a direction. That is the only time that Mr. Dumble had anything to do with directing my activities. I took orders chiefly from Mr. Anderson. I believe Mr. Dumble was Mr. Anderson's superior, and that Mr. Anderson got directions generally, from him. Mr. Dumble had his office in the group of offices maintained by the Kern Trading & Oil Company and, I suppose, by the Southern Pacific Company.

Mr. Anderson asked me to take the job, when I first was employed. I had not been down in the West Side field prior to that time. Never saw the Elk Hills; never saw the Elk Hills or any portion of the West Side field from Coalinga to Sunset before that summer. I had not had any field work before that time.

I first met Mr. Josiah Owen in San Francisco in

the offices of the K. T. & O. Co. after I became connected with that company, probably in June, 1907, and when I said in my testimony that I knew him well, I referred to the time that I knew him subsequent to the summer of 1907 rather than at the time I met him at Maricopa. I did not know him very well at the time I met him there. In the fall of 1907 I was transferred to the Associated Oil Company at the salary of $125 a month and my field expenses. I didn't re-enter the University that fall and desire to correct any contrary statement I have heretofore made. I worked for the Associated Oil Company until September, 1908, when I again re-entered the University and completed the work necessary to my first degree, which was obtained in December of that year, when I left the University.

I did not examine any properties in the Elk Hills in [1763] 30-23 or 30-24 for the Associated Oil Company during the time I was employed by them or at any other time. I was not in the Elk Hills from the fall of 1907 until the fall of 1908. My first trips into the Elk Hills were in the month of August or September, 1907. There were three or four different trips made in there for the Kern Trading and Oil Company. The last one was, perhaps, in October, 1907, I cannot say exactly. I originally formed my conclusions respecting the Elk Hills from the work I had done there. I met Josiah Owen at Maricopa, in July or August, 1907. I had seen him a number of times before that. He often visited my headquarters in the

Kern River field. I would have no hesitancy about the correctness of my recollection as to the conversation I had with him at Maricopa relative to the Elk Hills if it should appear that just prior to that time he had made the statement that the oil-sands went out to the Elk Hills and the Buena Vista hills and that the horizon probably extended across the valley to Kern Lake. Mr. Owen was inclined to give his opinion freely to almost anyone who asked it. I saw nothing unusual or strange in his giving me his opinion in July, 1907, after an acquaintance of only two months between us, because I knew that we often discussed geological features—or we did discuss them; we discussed them all that day, particularly, we were together; and I knew that he was giving me what he thought, because of the discussion of certain private matters, relating to oil lands in which he was interested down near Maricopa. He didn't tell me that E. T. Dumble was interested with him in those lands. He explained to me that he had a backing of friends who were taking some oil ventures, but he didn't go into details of the method of obtaining the land or who his friends might be. So far as I know he was extremely friendly with Mr. Dumble and I believe Mr. Dumble received his geological reports, generally, on the country, the West Side country. Mr. Dumble, I believe, had charge and direction of the **[1764]** geological end of the work in connection with the Southern Pacific Railroad Company lands. I say that Mr. Dumble was inclined to give his opinion freely to

anybody that asked it because I was acquainted with a good many statements that he made to other people, to people operating and proposing to operate in the Midway field and in its neighborhood, McKittrick field, and I know that he was very inclined to make statements of conclusions on oil territory or proposed oil territory, and very often he would freely tell his judgment to such parties, and occasionally to strangers who asked him questions about his geological opinion.

I first formed an opinion of the Eilk Hills as a possible or probable oil bearing territory as the result of my work in the fall of 1907. I made no written report to the Kern Trading and Oil Company of my conclusions as to the oil-bearing character of the Elk Hills or any portion of them. It is customary for geologists to give such reports. The reason why I did not make a report was, I presume, because the work became a part of a large map of the area, to which I contributed, and I simply gave it to Mr. Anderson as a part of my work. I believe Mr. Anderson discussed with me the conclusions I had arrived at. I think the matter was brought up a couple of times on my return to San Francisco from the field as a matter of conversation between us, on a couple of different days.

I didn't know at the time I was reporting to the K. T. & O. Co. my conclusions on the Elk Hills, that E. T. Dumble, chief consulting geologist of the Southern Pacific Company, was the owner of several hundred shares of the capital stock of the Eight Oil Com-

pany, which had holdings in those hills. I do not know it now. I never discussed that with Mr. Dumble. I didn't know at the time Mr. Owen talked with me at Maricopa that he was interested in locations of lands on the even numbered sections in the Elk Hills. While I was at work for the Associated Oil Company I met [1765] a geologist named W. A. Williams. He was field geologist for the Associated Oil Company. He followed my time. I think he entered the service of that company soon after my leaving it. I was the original geologist employed by the Associated Oil Company. If I might explain, the Associated Oil Company had a purchasing department, of whom the head was Mr. Benenfelt, with offices in the Wells Fargo Building. Mr. Benenfelt conceived the idea of having scientific help for his work and he asked me to give my time and services to him, for the consideration mentioned, and I took the Los Angeles district. I was assigned to the Los Angeles district. And I think that after my leaving the Associated Oil Company to go back to the university to complete my course, it was sometime after that Mr. Williams was appointed. That is as I know best the history of the thing.

Soon after my being employed by the Associated Oil Company, Dale Slusher and Robert Moran were employed as geologists by the company. Mr. Slusher had the Coalinga district and I think Mr. Moran had the Santa Maria district.

At the time I was employed by the K. T. & O. Co.

I had considerable experience with the geology of the Coast Ranges, and that is the key-note of all oil geology. I had not, specifically, had oil geology until I went to that company as an under-graduate student in June, 1907. I cannot agree with the statement that my opinion, at that time, after a couple of months around collecting data for the construction of maps showing the location of wells for the K. T. & O. Co., would be of much value in determining about the geology of the Elk Hills. I know more about oil geology now than I did then. I feel, in justife to myself, that I had a very good knowledge of the particular problem with which the Elk Hills were concerned. Each area in California is a particular problem. You may have a good deal of assistance from your experience in other fields, but each particular area is a particular **[1766]** problem in itself. Each one must be worked out in its details. I believe I could do that work quicker now, but perhaps not more accurately than I could then.

I cannot mention what sections I went to in the Elk Hills during either of the first three visits I made there, and can not now swear positively that I was ever on Sections 15, 30-23.

Here witness examined a map and said "I cannot say, definitely, that I was on Sections 15, 17, 19, 21, 23, 25, 27, 29, 33 and 35 of Township 30-23. I very probably crossed that ground in my work. I never knew the Section numbers and could not say, positively, that I was on there, but it is very likely I was.

I can say what the geological formation as to each one of those sections is, from generalization, from all my trips, but I cannot now recall whether Sections 15, 17 or 19 are on or off the anticline of the Elk Hills independently of any map.

An anticline is an upward bend in an otherwise horizontal strata of sedimentary beds. I didn't say that the Elk Hills was an overturned syncline. I don't know what an overturned syncline is; don't believe I ever heard of one. It is not generally used in geology that I know of, and if it is so used, I ought to know it.

I have met J. A. Taff, who, I believe, is on the geological staff of the K. T. & O. Co. I first talked with him yesterday. That was the first time I met him. I had some discussion with him as to a condition in the north end of the McKittrick overturned anticline; a discussion on the distribution of certain fossils in there and oil-sands. I think he passed over some questions to Mr. Lewers, counsel for the defendant, while I was on the stand, for him to ask me in the afternoon session of yesterday. I had not discussed those questions with Mr. Taff.

At the time I talked with Mr. Owen, in Maricopa in 1907, he asked my opinion on the Elk Hills and I told him that I had not [1767] completed my work there and did not know what to think. He then, quite freely told me that the Elk Hills were too far out to fill. That remark did not have any influence upon my mind in determining conclusions I subsequently reached as to the oil character of those hills, because, in the first

place, Mr. Owen was not a scientifically trained man, and was not a geologist in the full sense of the work, and I was concerned in working out the knowledge of it firsthand, for myself.

I don't regard it as taking considerable assurance on myself, as an undergraduate, with the limited amount of science I had at my command at that time, particularly on the question of oil geology, to characterize as unscientifically trained and not a geologist a man who at that time must have been upwards of fifty years of age and who the evidence shows was entrusted with the oil geology of a vast field for the defendant Southern Pacific Railroad Company and Southern Pacific Company, and whose work in the Elk Hills and in the McKittrick and Midway fields had earned for him some reputation among those who knew him well. I did not offhand and flippantly decide that question after meeting Mr. Owen once or twice. I knew Mr. Owen by reputation; I knew something of his training; I knew a good deal by hearsay as to his ability. I didn't know that he was entrusted by Mr. Dumble with the actual determination of the field work of that whole region, in those areas of land said to be underlain with petroleum, and I don't know that Mr. Dumble relied upon his judgment to a very large extent or that Mr. Dumble practically got the major part of his understanding of oil geology in California from Mr. Owen. I received very slight information from him as to the mineral character and geological structure of that region, generally. The fact is not pretty generally known that I obtained a great

deal of information on the subject of oil geology of the West Side field from Mr. Owen during his life time. [1768]

I was not subpoenaed as a witness in this case. Mr. McLaughlin, general manager in the field of their development work, of the Kern Trading and Oil Company, asked me if I would be willing to testify. That is the same Kern Trading and Oil Company that is the defendant in this suit. He asked me about three or four weeks ago. I met him in Fresno and my name was brought up in connection with the testimony of Mr. Dyer, who happened to be there that day. That was after Mr. Dyer had testified in this case. Last time I saw Mr. McLaughlin he asked me to visit Mr. Lewers, attorney for the defendant, and asked me what my fee would be in case I did testify. I told him that I usually received a fee of $50 a day for work of this kind. I did not make arrangements with Mr. Lewers as to the fee. The mention of the fee was not brought up. I assumed that Mr. McLaughlin was acting on behalf of Mr. Lewers.

I cannot recall whether I mentioned my conversation with Professor Owen at the time I met Mr. McLaughlin in Fresno or not. I think I did, because we visited afterwards in the lobby of the Hughes Hotel and the matter was discussed, he brought it up again, and I think that was the time I mentioned it first. Mr. McLaughlin did not say anything to me about the previous testimony in this case to the effect that Mr. Owen had characterized the Elk Hills as

good oil territory and that my testimony on that point might become material. Mr. McLaughlin asked me something about my visits to the hills, when I was there and who was with me, and asked concerning the work and the opinions; and I think it was that time that I mentioned my conversation with Mr. Owen. I think the matter was brought around in this manner: At the opening of this case some one visited my camp near the Coalinga field and asked for me to serve in that case, and he made the statement to one of my foremen that I was acquainted with the territory, I was one of two men acquainted with the territory, and the other person **[1769]** was dead. I assumed that it had some connection with Mr. Owen, and I think Mr. McLaughlin asked me if I had been summoned or if I had been asked before to testify, and I said that I had not, and related the incident, and I think that is what brought about the conversation, the story of the conversation between Mr. Owen and myself. I think that is the way it came.

Mr. McLaughlin did not express his entire approval of the testimony which I proposed to give in this case. He said, "Call on me the next time you come to San Francisco. I would like to see you," and we met and the matter was talked over, and he then asked me to see Mr. Lewers. I told Mr. Lewers what Mr. Owen told me at Maricopa in 1907.

I think the two particular discussions I had with Mr. Owen dealt with the northern extension of the

Midway field from the then producing area and the other problem discussed or mentioned was the northerly extension from McKittrick toward Coalinga. I don't know how far he might have gone in that discussion with me. I can repeat one or two statements that he made that I remember very well, as I respected them on account of what has happened since and what I know. He discussed the great possibility of the west side, and he mentioned the possibilities of the Buena Vista Hills, and he made this remark: "If there is a spindle top in California it is on top of the Buena Vista Hills." By that he meant that the dome was filled with oil. He did not mention in connection with the possibilities of the Buena Vista Hills that he had found an oil seepage or cropping of sand in section 11 of those hills. I have not seen that seepage myself.

He did not mention an oil seepage in the northwest quarter of Section 32, 30-24 in the Elk Hills. I have been in the Buena Vista Hills and from all that the eye can discern they are very similar to the Elk Hills in structure and formation and they are uplifts of the same geological period. If there is an oil [1770] seepage or cropping of oil-sand in Section 11 in the Buena Vista Hills and the Elk Hills have a similar cropping of sand, I would, as a geologist, say that there was a suspicion worthy of studying as to the oil character of the Elk Hills, anad that suspicion would be aroused upon standing upon the McKittrick front and looking up to those hills, and

would warrant further investigation. I think that even as early as 1901, a competent geologist standing on the McKittrick front and looking off across the valley to those two groups of uplifts or hills, and who knew of outcroppings and oil seepages in them and know of the state of development would at once have his suspicion aroused as to the possible oil-bearing character of those hills. If those outcroppings existed they would have a great bearing in my mind upon the possibility of the oil-bearing character of the hills. I don't think that with a knowledge of the outcroppings of oil sand in the Elk Hills, known to exist prior to 1904, when considered in connection with the anticlinal structure of the hills and with the development along the McKittrick front and down along the line of the eastern flank of the Temblor Range, a competent geologist would, without further study, be warranted in advising an investment of money for the purpose of attempting to produce a paying oil property there. I think that an opinion which involves the expenditure of money should have complete study, should be concerned with not only seepages but all the geological data that might be gathered from a long and detailed piece of work. Where the anticline is as clearly defined as in the Elk Hills we have the elements of an ideal spot by an anticlinal structure. Assuming that there is a cropping of oil-sand showing at some date in the past the waste of bituminous matter in the Elk Hills, and taking that assumption into consid-

eration in connection with the correlation of the oil-sand outcroppings along the McKittrick front and down as far as Sunset where the valley makes a contact with the Temblor Range, I would [1771] say that the facts would be a strong element in favor of warranting a competent geologist to advise a man to invest money there with the hope of producing oil property, and I believe many competent geologists have advised the investment of capital on less evidence than that.

A cropping of oil-sand is a beginning of first-hand evidence that petroleum is present in the neighborhood and it is the first step in the study. I would call forth the first suspicion, the first interest. A cropping of oil sand which shows unmistakable evidence of having been impregnated by petroleum or bituminous matter is absolute evidence to the mind of any competent geologist that if oil does not exist in that formation now, it must have existed at some time in the past. That is unequivocally true.

Without any knowledge of the existence of an oil seepage at all, the mere sight, six miles away, of the uplifts on that plain, would have been sufficient to arouse the suspicion of a competent geologist as to the oil-bearing character of the Elk Hills. His suspicion would have been immediately aroused without any investigation whatever.

In my testimony of yesterday I stated that there was more than one oil-sand from the McKittrick to the Sunset field. that there was an Eocene, Vaqueros

and McKittrick. It is true that the Eocene formation is up west and northwest of McKittrick near Frazer's Spring. It is not true that the Vaqueros is on the west side of the Temblor Range and does not touch the east side at all. The seepage is on the east side at Temblor, northwest of McKittrick. From McKittrick to Sunset there is only one oil seepage in time and that was the McKittrick time.

I respect Mr. Veatch to the very highest as a scientific gentleman of high standing. I have had the pleasure of working over some ground covered by the results of his previous professional **[1772]** work —one, particularly, the Wyoming ground—and it was a fine piece of geological work, well done, by a good man. I have no way of knowing that Mr. Veatch did not have as much knowledge of the oil region concerning which I have testified, as I have myself.

I kept field notes on the work I did in the Elk Hills in a small notebook, which must be in the possession of the Kern Trading and Oil Company. All my notes were turned in with my leaving the service of that company.

When Mr. Owen made the statement to me at Maricopa in 1907, that when oil would be discovered in the Buena Vista Hills they would find another spindle top, I at once understood that he meant a dome-shaped structure filled with large gushing oil, or oil which would produce gushers in great quantities. That statement of his seemed to be inconsistent with his statement with regard to the Elk

Hills when the relation of the two hills was taken into consideration and seemed to realize the inconsistency, and by way of explanation made the statement that the Elk Hills were "too far to fill", apparently to carry to me some process of reasoning by which he must have arrived at that conclusion. I would assume that he would have concluded that the Elk Hills would also be a spindle top if it was not "too far away to fill." In other words, it was my understanding of his remark that if oil was found either in the Buena Vista Hills or the Elk Hills it would be a large producer, the same as the Buena Vista Hills, if oil was discovered at all in it; because he recognized the anticline, I believe he knew that it was an anticlinal structure—and they are very eagerly sought after. His opinion on the Buena Vista Hills was certainly verified. Eliminating from my mind anything that I may have heard about the wells which may have been brought in in the Elk Hills, I would concur in Mr. Owen's opinion, from my knowledge gained of those hills prior to 1910, but I think, in my discussion, I felt that there might be scattered amounts of oil, that is my **[1773]** personal opinion. I attempted to make that clear, in the discussion of what happened to the oil from its original distillation to its present reservoir and the process of water infiltration. I originally concurred with Mr. Owen that if oil were found in either one of those groups of hills, it would be in gushing quantities. I did this

on the assumption of his reasoning before I made my own study.

I formed my opinion in 1907 that the Elk Hills did not bear petroleum. I was asked to meet Mr. Fried and Mr. Dyer at Bakersfield, in 1909, for the purpose of going into the Elk Hills and making an examination. The particular locality to be examined was not mentioned and I never knew where we were going until we reached very close to the foot-hills of the Elk Hills themselves. I made the remark that I could have saved the time and the effort if they had told me where they were going. And they insisted, then, on going to see this alleged seepage, something I had not seen before in my work there. My former conclusion was based on all the data available at that time, which was to me sufficient. If I had overlooked any seepages or croppings of oil-sand at that time my judgment would have been erroneous or based on insufficient information. The ground had been considerably opened up by some developments. There was a tunnel there. I examined the occurrence to see just what its appearance might be and I came to the conclusion very rapidly that it was an organic occurrence and not an oil seepage by merely looking at it, from the relation between this formation and the close and impermeable strata exposed underneath. I did not burn it nor test it with chloroform. The usual tests given such matters by geologists are for things which are uncertain in nature. The occurrence there was so self-evident in its appearance that

its character was easily apparent to me and I did not think it was necessary to go to any further examination. I felt satisfied, with the occurrence in fresh water beds, its **[1774]** relation to the rest of the hills geologically, and the series of facts which I stated yesterday, in my testimony, that it was vegetable matter. As a scientific man, I don't believe that I might be mistaken in my conclusion as to the origin of that sand, notwithstanding the fact that other witnesses have testified to tests which tended to show to the contrary. The evidence which the question has rehearsed could be taken in another direction just as easily as to indicate the presence of petroleum. The presence of gas, illuminating gas, the presence of an odor, is not suggestive—it is not an absolute diagnosis—that the condition was of petroleum, the occurrence was of petroleum. The vegetable matter of which I have spoken was put down, deposited, at the same time the main bulk of the material composing the Elk Hills was deposited. I didn't see any evidence of sub-saturation of any kind. I didn't see what I would call a saturation of the sands. There is a presence of what you might call lignitic material, this plant organic material, distributed through those sands and discoloring them; but I would not call it a saturation—in the sense of liquid. I assume "saturation" refers to liquid.

I am sure the examination I made of the scientific aspect of that exposure was far more conclusive

than the evidence given by Mr. Youle to the effect that as a result of the chloroform and fire test of the oil sands he found in the Elk Hills, he found bituminous matter, gas, and that the Elk Hills were full of evidences of gas, that they had been burned with gas all over, that there was evidence of a very volatile oil and evidence of an oil that might not have much asphalt base. Made under the conditions indicated, bitumen does not always indicate petroleum. The distribution of these vegetable matters throughout the San Joaquin, the presence of these gases—with which I am very familiar through that valley—in this formation, all indicates that the material is of plant remains rather than of petroleum residue. **[1775]**. The location of a producing well on the Section cornering with Section 32, 30-24 would have nothing to do with the question as to whether that was vegetable matter or not, even though it might be a large producer. The existence of such a well would not have any influence in determining the question of whether I made an error in my judgment as to the origin of that stain on the sands in Section 32.

The occurrence of a well, a producing well, would not change the opinion as to the origin of this material. If I may be allowed to explain: An oil-sand there, if it were a typical outcrop, would be revealed only by a breaking or a thrusting of the formations—some method of fracturing by which the oil might start forth and reach the surface. The deposits of

organic material indicate a flatter condition, that is, a blanket or a small skin of material laid down above, unbroken—I mean horizontal—impervious, close, through which there is no breaking, through which there is no fracture, and beds which have so little degree of consolidation that no fracture could possibly take place through them.

Coming back to the trip into the Elk Hills with Mr. Fried and Mr. Dyer, I will say, as I remember it, that they concealed from me the fact that they were going into the Elk Hills until we got right there. As I remember, we were to make a trip into the Midway; I was not given specific directions, as I recall them, and when we got close to the Elk Hills I was informed that we were going to them first. I would not say that the trip into the hills was only a casual trip. We were to carry on a considerable bit of examination in the Midway field, and this was one of the areas that they had in mind as the first to be examined. I don't know of any purpose they had in concealing from me the fact that they were going into the Elk Hills. I believe I told them that I had examined the Elk Hills in 1907, and notwithstanding that, I **[1776]** still went with them to advise them whether they should locate lands there for petroleum. They said they wanted me to go, that there might be something that I had not seen and this seepage had been reported to them; wanted to know if I had ever seen any. I said I had not. I think I spent nearly all day in the Elk Hills. If I remember rightly, we got into

Maricopa that evening and that was the only piece of work we had accomplished. I did not take any of the material away to test it. I think Mr. Dyer was mistaken when he said that I did, because I don't recall having carried away any specimen or having made a test.

If I had known as a fact, in 1904, that in the well of the Associated Oil Company on Section 24, 30-23 there was an oil formation of four hundred and ten feet existing, and in the well of the same company in Section 26 of 30-23 an oil formation of three hundred and sixty-two feet exitsing, and that the oil from that formation is more than 25 degrees gravity, and that also there existed an oil formation of three hundred and fifty feet in thickness in the well of that company on Section 30 of 30-24, and that from the last named well there had actually been produced six thousand barrels of petroleum of 28 degrees gravity, which, before the well was closed down, was flowing at the rate, as shown by the gauge, of four hundred and six barrels per day for two days, it might have caused me to modify my opinion as to the oil-bearing character of the lands in this suit. In explanation I will say that the features as presented in the wells is a condition that I have predicted early in my testimony here and that I would have predicted for the hills, that is, the presence of oil distributed upward through a considerable thickness of shales without the presence of the concentration in a definite sand; and there would be a showing of oil. But the con-

clusion of an upsetting of my original opinion would have to be based upon further statements. The showing of the well, its rate of flow, and its development of some [1777] oil, is not a safe evidence of what it will produce, whether the well will be an economical well or not. If a hundred barrel well in the Elk Hills were a paying well it would modify my opinion as to the value of the Elk Hills as oil territory.

The oil in the Elk Hills is found in the McKittrick beds and migrated from the diatomaceous shales of the Monterey underlying those beds.

I don't entirely agree with the statement of Dr. Branner that the Elk Hills are situated at the point where the Monterey shales occur in the thickest strata. The history of the Monterey shales indicates that they are of moderately local occurrence; that the fauna or flora which filled them up in their organic constituents were of forms inhabiting moderate depths; that the whole valley floor was not laid down and as you go eastward you expect a thinning out of the Monterey. Just how much that would be thinned out under the position of the Elk Hills no one knows or can say, but the features are in favor of its thinning less than the measure which Dr. Branner reports.

It is my opinion, as a geologist, that the diatomes are deposited in moderately shallow water. I don't believe that I am wrong about it. I am not an expert on diatoms, but we will take for our informa-

tion the men who have made a study of that, and there are published records of observations of men who are qualified to state just what depths of water are most favorable for the deposit of diatomaceous material. I would call from three hundred to three thousand feet shallow water.

The whole San Joaquin Valley represents an internal arm of the sea. The borders of that valley represent the Mount Diablo range on the west and the the Sierra Nevada on the east with a gentle trough or dip from the west towards the east and from the east towards the west and the shallow deposits would be along the edge of that valley. **[1778]**

My conclusions regarding the Elk Hills were before developments there and I have no reason to change my opinion. I tried, in my testimony heretofore given to make my statement clear that there would be small amounts, that there might be a chance to have small amounts of oil to be caught under the Elk Hills area. I said that there was oil in the beginning of the Elk Hills anticline as exhibited in the McKittrick front. The Elk Hills structure, anticline, begins in a little fold from in front of McKittrck which has producing wells upon it.

I have tried to make clear that there might be some oil, and I have made use of the words "scattering amounts." Assuming that there have been large quantities of oil discovered in the Elk Hills, I would be wrong.

I did not mean to give the idea that I concurred in

the opinion of Mr. Owen that it would be another Spindle Top and that the oil would be found in great quantities in the dome and that gushers would be produced. As to what I meant by saying "scattering amounts" of oil would be found, I will say that the opportunity for filling the Elk Hills, or the region over there, is to be obtained from two directions: First, the monocline of the Monterey shales in the Midway hills dipping easterly or northerly towards the Elk Hills. The other point of direction from which oil might come would be from the McKittrick structure. The McKittrick structure developed a complex overturned fold and developed the oil in the shales themselves. The McKittrick production is drawn directly from the anticline involving the Monterey and Santa Margarita beds, their equivalent. In addition to that, these sharp angles on the east side indicated very little oil would pass easterly; some might, some did. It was indicated by the occurrences of oil in front of McKittrick and the production there. I referred in my conversation directly to three sections we named and described, and three particular wells, the results [1779] of those wells and the results of the wells on the top of the anticline of the McKittrick front, which is the beginning of the Elk Hills structure. I explained that the Elk Hills as a structure is leaving the proximity of the Monterey at a constantly increasing angle; they are becoming more and more remote from a chance to obtain petroleum in large quantities. With

relation to the other direction of its possible impregnation of petroleum, I referred to the conditions, first, of the area in the great valley syncline over which the Elk Hills were deposited, and the migration of oil to the westward to arise in the monoclinal seepage on the west side of the valley. Then I referred to the water filling the lower levels. I also made a point of the changing conditions from the sand on the west to the sandy shales and lack of sand on the east; also, the position of the Buena Vista Hills as drawing oil directly from the monocline of the Monterey and McKittrick formation; also, the condition of water in the first syncline between the Buena Vista Hills.

The Elk Hills and the Buena Vista Hills were uplifted during the Tulare time and before the close of that time; this accounts for the unconformity of the later Tulare formation and the other Tulare formation—the difference between the structural Tulare and that of a plain deposition of Tulare.

There was a shore-line against which the McKittrick formation was thrown. It was approximately the contact of the McKittrick formation and the Monterey formation on the western margin of the San Joaquin valley. Beginning with Section 11-11 north, 24 west—on the preliminary geologic and structural map accompanying Bulletin 406, and following the line in a northwesterly direction, which marks the divisional line between the McKittrick on the east and the Monterey and Santa Margarita on

the west. That would be approximately the old shore-line and it is approximately the line of seepage, too. It would be west [1780] of the Spellacy hill in the contact between the McKittrick and the Monterey. It would also be about two miles west of Midway and continues on north. The next place would be Crocker, and make a line from the east of Crocker near the bench mark, 1410, shown on this map, and then in a northwesterly direction up to McKittrick. The main portion of the Mount Diablo Range, called the Temblor Range, was above the shore-line when the McKittrick was formed along that shore-line. There were certain low depressions, arms of the sea, which went back of the shore-line, which I have described, in which the McKittrick was formed, otherwise it was formed below that shore-line. If the McKittrick is found hundreds of feet higher up than this shore-line it indicates some local disturbance which has elevated that part of it. I don't believe that it is generally conceded by geologists, who understand the West Side, that the McKittrick was laid down above the Temblor Range, was elevated above the sea. I might modify some of the features of the shore-line I have indicated, but there is plenty of evidence that it existed approximately at that location.

I am just as positive that, as a geological fact, the Temblor Range was in existence as a topographic feature before the McKittrick was formed as I am of anything else that I have testified to concerning geology. If the Temblor Range was not in existence

at the time the McKittrick was laid down there would be no shore-line and no monocline up to the shore-line, and would destroy one element of the discussion why the Elk Hills would not be a place for the accumulation of petroleum. The monocline theory was one of the elements of my conclusion. The monocline was formed by the lifting of the Monterey beds in the Temblor Range where the McKittrick formed the contact along the shore-line I have mentioned.

It was created by the rising of the Temblor Range and sharply dipped eastward into the Monterey shales. Prior to that[1781] uprising there was no monocline there involving the two formations. I have stated that the over-turned anticline was opposite the syncline and that there is an anticline beyond the syncline, which is a continuation of the Elk Hills structure. I presented my investigation far enough to ascertain that in the continuation of the Elk Hills structure, the anticline I speak of, producing oil wells exist now. I am satisfied that the Elk Hills contain petroleum and the competent geologist might or might not have so concluded in 1904 with the evidence then in hand. I don't know what he might say. With the development as McKittrick and the surface conditions heretofore described, a geologist would have said, in 1904, that the Elk Hills was a favorable spot for the accumulation of oil. That would be the beginning of his belief.

I don't know that I have said that the statement made by Dr. Branner in his testimony, that a geolo-

gist who failed to form the opinion that the Elk Hills were oil in character and that there was an oil-bearing zone underneath the hills after he had observed the general indications found in these hills and in the McKittrick district, did not know his business. To a geologst, the details in evidence there would go a long ways towards an opinion in favor of the Elk Hills being oil territory. It would be a start in his work. On less evidence than exists as to the Elk Hills being a favorable spot for the accumulation of petroleum, I have wild-catted a well or wells, and on no less evidence than existed in the Elk Hills in 1904, I have advised the investment of money in the hope of producing paying oil property. I refer particularly to the Kettleman Hills where I found an ideal anticlineal structure but no seepages within a distance of about seven miles of the Kettleman Hills. There were seepages within a closer distance than that of the Elk Hills. We have drilled about 4200 feet in the Kettleman Hills and found no oil, but I know that we will find it. **[1782]**

On the evidence of a seepage seven miles away in the main range and with nothing but the anticlinal structure of the hills, I, as a geologist, believe that one would be justified in expending money for the development of a paying oil property in the Kettleman Hills and also in advising others to invest money. There is no development in the Kettleman Hills except my own; that is prospect development. Three of us are in there making a test of the Hills.

There was no development when we went there. We have expended about $140,000 in development. The relation of the seepage I have mentioned in the anticlinal structure is the only evidence of oil in the Kettleman Hills.

I expect to find oil in the well I am drilling in the Kettleman Hills and will go 5,000 feet and further if necessary. That would be dependant upon physical conditions. If the physical condition was satisfactory and I had the money to do so, I would probably go as far as I could go, probably 5,500 feet and if I struck oil at 5,500 feet in commercial and paying quantities I would regard the venture as successful; but I would not regard it as a pumping proposition. I don't believe a pumping well of that depth would have oil in paying quantities and it would not be practical at that depth. I am assuming, and I have plenty of evidence, that my well would be a large, flowing well if the gas pressure was held and conserved and properly brought in, and I would expect the well to flow for at least two years time and I would want to get an average of at least one thousand barrels a day of a gravity from somewhere 36 or 38. If that were the case I would expect it to be practical. I am able at this time to estimate pretty nearly within one hundred barrels a day, the amount of oil that I would get there. I am satisfied that I would get several hundred barrels a day.

Referring to my former statement that I had made other ventures in the oil business besides the Kettle-

man plains, I will [1783] say by way of explanation and in justice to myself and in regard especially to the conclusions in the McKittrick district, the relation of the Elk Hills to the McKittrick district, that I have made a number of ventures based upon the sort of arguments that were the foundaton for a conclusion on the Elk Hills, each one has been satisfactory, each one has worked out exactly according to its prediction, each one has been a safe bet based upon the geologic fundamentals of my argument against the possibility of the Elk Hills.

CROSS-EXAMINATION OF W. H. OCHSNER

In explanation, in detail, of the situation with reference to the Kettleman Hills as compared with the McKittrick and the Elk Hills district I will say that the Kettleman Hills form a large anticline, the part of the anticline to the north known as the Coalinga anticline and producing at that place. In dealing with the Kettleman Hills problem we are dealing with a wide distribution of very old beds. The formation in this case from which the oil was originally drawn was the organic shales of Tejon and the oil-producing zone is that of the Vaqueros. The study of the Mount Diablo Range on its eastern flanks reveals a great distribution and a uniform sequence of beds from the Tejon up through into the Etchegoin. You have here a great widely distributed formation dealing with old formations. As you go into

and deal with old formations you become involved in more and more universal conditions. By that I mean as you deal with the deposition of organic shales of the Eocene time or sandstone and Vaqueros time, you come to a wide distribution of those formations. As we go further and further back into the older formations you deal with more and more universal conditions, a wide-spread deposition of a single unit. **[1784]** All of the beds in the tertiary formation, involving the oil formations at the bottom of the Mount Diablo Range and those which are producing at Coalinga, dip towards the Kettleman plains and the Kettleman Hills in one great and continuous anticline. The sequence of the beds is so continuous, so uniform and so unaltered in its whole distribution that it is reasonable to assume that it continues over a very great distance. The Kettleman Hills, the formations exposed, are the Paso Robles and the Etchegoin. The relation of these formations to the monoclinal beds of the Mount Diablo Range is to be worked out on the condition and distribution of the fossil faunas. It indicates that the Kettleman Hills is a part of a great uplift involving the whole thickness of the Tertiary beds from Etchegoin and Paso Robles down and including the oil measures. Therefore if an uplitf of that nature takes place so profound, involving old formations of wide distribution, it is natural to suppose that the whole sequence is involved and you are holding within the heart of the Kettleman Hills the shales that the petroliferous Va-

queros sandstones above have. That, in general, is the method of working out the conclusion.

The formation composing the Kettleman Hills is of a much older period of time than those composing the Elk Hills. The disturbance in the Kettleman Hills indicates a profound disturbance involving the whole sequence of a great anticline and gentle syncline between its monocline on the west and allow a structure such as the Buena Vista Hills to intervene. On the other hand, the Elk Hills deals with a comparatively local condition involving much more recent, unconsolidated beds, and a complex structure.

The Monterey, in its northern distribution, probably begins just north of Devil's Den and continues down through the West Side and its last appearance is about Salt Creek or east or southeast of San Emidio Range, where it thins very much, becomes sandy and plunges into the valley floor. Since testifying **[1785]** this morning I have had occasion to refer to the bulletin mentioned in connection with the deposition of the Monterey shales. As to the fauna, I made a mistake in the bulletin as to the actual occurrence, but I have found it in another book, bulletin No. 268, of the United States Geological Survey, entitled "Miocene Foraminifera from the Monterey shales of California with a few species from the Tejon," by Rufus M. Boug, page 12 of which reads as follows:

"The majority of forms identified are present in abundance today in the North Atlantic ocean. (See

list on pages 13 and 15.) And the writer is confident that the conditions there today represent pretty well the oceanic temperatures and depths of which the California beds were laid down. These fossils were presumably deposited in waters the depths of which were less than five hundred fathoms." That indicates shoreline conditions.

In answer to the question as to what the erosion material is composed of which forms the base of the McKittrick near the shore-line, I will say that it is the base of detrital material taken both from the Monterey and from the granitic material and crystalline masses which form the heart of the Temblor Range. That, in my opinion, is evidence of the uplift of the Temblo Range prior to the deposition of the McKittrick. I say this because the material which makes the McKittrick, the heavy, coarse material at the bottom, which can be recognized in its character, must have been taken from a higher level. Those higher levls were composed of Monterey and the crystalline formations. I believe there have been changes in the position of the Temblor Range since the original uplift. These changes are going on at the present time, very slowly.

I received some assistance from F. M. Anderson during my field work in 1907. The specific instance in which I received that assistance was on the McKittrick anticline. We spent some time on **[1786]** the structural conditions and distribution of the formations and petroleum in the McKittrick field. At

that time Mr. Anderson had done a great deal of work on the geology of the Coast Range and I consider him, by virtue of his long training, his long experience and continuous study, the geologist most conversant with the geology of that range with special reference to its oil, and I entertained that opinion in 1907 and for that reason I consulted him at the time mentioned.

Since 1908 my work has covered all of the important fields, now producing fields, in the state of California, beginning with Los Angeles on the south, the Ventura fields, the Santa Maria, the Midway-McKittrick, and Coalinga fields.

I was called back into the McKittrick field on a number of missions. For some time I did advisory work for the Reward Oil Company. They were old producers there and were attempting to enlarge their production—rather, increase, extend it—and I went back there for two or three other investors, made examinations. I also went back on my own account looking for ground as a possible venture. On some of these subsequent trips I made additional trips into the Elk Hills. I think I made two trips subsequent to the trip when I went in company with Mr. Dyer and Mr. Fried. Mr. McReynolds and I were in there two or three times together, I think.

I went back over the ground with the idea that there might be something that I had overlooked, and I realized that I had better knowledge of conditions, better knowledge of oil fields, of California, that I

had gained by experience and by observation, and I wanted to see if there was anything in there which really I had overlooked, anything which would change my opinion of the matter; and it was about the time that we were quite certain that the No. 1 well of the Madsen people on Section 10 of the Buena Vista Hills would be a producer. The gas, I believe, had [1787] been encountered—a heavy head. The indications in this well were that it would be productive, and I wanted to be sure that I had not overlooked a chance in the Elk Hills. I came to the conclusion that I did not wish to risk my money or that of my friends in there. I would not at that time, or at the present time, advise an investment of $147,000 in the Elk Hills as I did in the Kettleman Hills because there was not enough evidence then and there is not enough now to make me feel that an investment of that size would be merited.

There are differences in the formations in the Elk Hills and Kettleman Hills that would affect drilling. The Elk Hills are composed of essentially soft clays and shales, unconsolidated, and the Kettleman Hills, on the other hand, are composed of sandstones and shales with quite a considerable degree of consolidation. The difference is in favor of the Kettleman Hills on account of the ease of drilling, the way in which a hole stands up, and the permanency of a hole once it is made.

I have seen a great many of the drillings in the McKittrick beds, especially in the Midway, and ob-

served them; but as to a very considerable thickness of the Tulare, I don't know that I have a first-hand knowledge of the wells piercing them. The Midway field offers very great obstacles for drilling, merely because of its soft, yielding and shifting formations. I have made the statement before this, as a comparison between the Kettleman Hills and the Midway field, that a well of five thousand feet in the Kettleman Hills was as easy to drill, or perhaps easier, than one of half that depth in the Midway field. The Midway field represents a typical district for pipe troubles, casing troubles.

I have no water troubles in the Kettleman Hills. The drilling in the McKittrick formation, in the Midway, and drilling in the formations of the Tulare and McKittrick in the Elk Hills, would be very similar; perhaps the difference that the formations **[1788]** in the Elk Hills do not have the number of hard shells and clay-beds which are pierced.

The absence of hard-shells would facilitate drilling. Such shells are difficult to pierce. The presence of hard shells would facilitate the landing of casing or the cutting off of water.

Since my experience in the oil fields of California began I believe Dr. Branner's experience has been very limited. I know of one or two pieces of work only, of my knowledge. The one piece of work, the one done recently, was a geological reconnaissance in which he requested that somebody be sent in to do detail work with reference to the oil formation. I

don't believe that he has been as extensively engaged in work in the geology of the oil fields as I have. Practically all of my time has been devoted to that work since 1907. My major subject at Stanford University was geology.

I began my geological work almost as a boy. I was always interested in it, had some high school work, was always interested in the discussion, had the advantage of a library at home and the benefit of association with men who were interested in geological work. I made my first geological conclusion, probably, when I was twelve or fourteen years of age. I collected fossils from old limestone fences, the old ancient formations of fossils, the old brachiopods and sparivars, which are so common throughout the limestones of the middle west. From that time on I gave almost constant attention to geology.

I have not seen an oil seepage in Section 32, 30-24. Assuming that the oil seepage there referred to is purely a vegetable deposit unconnected with petroleum, I would say that its presence had really no bearing upon possibility or the improbability of the oil. With reference to my answers to questions on cross examination relative to the inferences arising from the **[1789]** supposed seepage mentioned, I will say that I answered the question that Mr. Mills put to me. In that question he said that, assuming that the oil seepage was there. The question which I answered was, I believe, the best I could do with the

assumption that that was a seepage. In my own mind, of course, I had the feeling that it was not; but assuming the question as he put it, that the seepage was there, why, my answer was along that line.

As to my answers to questions relating to the conclusion that has been arrived at by a geologist who was familiar with the seepages along the Temblor Range near McKittrick and to the southwest and who saw the structure of the Elk Hills, I will say that if he was acquainted with the geology of California he would know that a topographic feature like the Elk Hills is the result of some sort of an uplift. The uplift might be anticlinal—very likely was—and the general relation of an anticline to the neighboring territory, the oil seepages, would be the first step in the idea, suspicioning that the structure might be favorable, that is, that the conditions might be favorable.

If he had made the right sort of work or the proper amount of work he ought to have been able to arrive at a conclusion for or against the Elk Hills. He could not have arrived at a conclusion merely from the evidences of the seepages and the surface appearance of the hills. A definite conclusion would have involved a good deal of detail work. A geological problem is not the result of a few days' work. It is very often the result of a good many visits, study, and a slow appreciation of the real philosophy of the whole problem. It is not an answer to be arrived at in just

a brief observation, but it is the result of an extensive bit of thought.

I don't see how a man could be qualified to pass an opinion upon the value of the Elk Hills as oil lands who merely went into McKittrick in 1900 on the train, and from there traveled over **[1790]** to the Temblor district to make an examination at that point, remained in the Temblor district a period of about ten days making an examination there, then returned back to McKittrick and took a train out of there.

In referring to the McKittrick front anticline I had in mind a small structure, anticlinal structure, which forms, or creates a low line of hills north or in front of the McKittrick fields. I regard that as the beginning of the Elk Hills structure, and continues northwesterly, so to speak, of the anticlinal field of the Elk Hills, built at the same time and involving the same conditions. I believe four or five wells have been developed in that anticline. I think there were at least two there in 1907, that I remember of. The best of these wells, I think, showed about ten or twelve barrels a day. The territory was practically abandoned by the developers of the ground. I believe it is not paying ground.

I would not call a well in the Elk Hills over 3,000 feet deep, from which a hundred barrels could be pumped, a paying well because the cost of operation, cost of the drilling and equipment of the well, with the initial production of a hundred barrels a day, that

the earning capacity would not be adequate to the investment, and if the well should be 4,000 feet deep its earning capacity would be decreased.

The opinion I reached, in 1907, as to the character of the Elk Hills would be corroborated if wells have been sunk to a depth of over four thousand feet at more or less favorably located points and have not shown any indications of oil.

I agree with the statement in Dr. Branner's letter of October 18, 1910, relative to Sections 2, 4, 6, 8, 12, 14 and 20, which reads as follows:

"Especial effort was made to find indications of the presence of petroleum on these lands; seepages of petroleum and **[1791]** beds of asphaltum were looked for on all of the sections in question, but none was found. Old oil seepages, however, are known and were seen on one of the adjoining sections (Section 11). The question arises whether a seepage of oil on Section 11 could be considered geologic evidence of the existence of petroleum on Section 12 or on any other section involved. As a conservative geologist I hesitate to express an opinion on this subject without more evidence than these seepages afford. I have seen enormous asphaltum deposits where no oil could be found by deep wells put down in the most favorable localities in the vicinity. Seepages and asphaltum deposits cannot therefore be regarded as unquestionable evidence of the existence of petroleum in the adjoining sections."

I was in the West Side field of Kern county in 1910.

As to how close the drilling and production of oil had approached the Buena Vista Hills up to October of that year, I will say that I think the production was confined to the west side of the field up near the edge of the outcrop of the formations, but I think that the well on Section 10, the original discovery well of the Buena Vista Hills, was in process of drilling. I believe so.

The original discovery well may have been brought in in February, 1910. The drilling in the Midway flat along toward the end of the year, 1910, had approached much closer to the Buena Vista Hills than it was in 1900.

I agree with the statement of Dr. Branner in the letter above mentioned, which reads as follows:

"**Evidence from outside of the Buena Vista Hills**—In spite of the absence of direct evidence to be found in the geologic formations on the lands in question, a study of the broad features of the geology of the southern end of the San Joaquin Valley leads me to the conclusion that these lands probably do have oil beneath them. The features referred to are the existence **[1792]** of an enormous thickness of oil-producing shales along the west side of the San Joaquin Valley, the association with these shales of porous sedimentary deposits, and the folds beneath and along which oil and gas usually accumulate. If oil had not been found, however, in the region south and west of the Buena Vista Hills a geologist would have been very bold indeed who would have ventured to predict

the existence of petroleum in the Buena Vista Hills themselves."

Referring to the conversation I had with Professor Owen in July, 1907, concerning the Buena Vista and Elk Hills, I will say that he spoke very favorably of the Buena Vista Hills and said that the conditions were so favorable that if a spindle top were to be found in California it would be found there. He didn't say anything about the Elk Hills being a spindle top, in that conversation. Some time during that day he made the remark about the Elk Hills being too far away to fill, and did not say anything to me about there being a spindle top in that conversation.

The data given by Mr. Veatch in his statement that, "the geologic structure of the Elk Hills is so very evident—the hill, as explained before, is a structural hill—that any one a geologist standing at Asphalto would naturally and at once suspect the character of the fold. If that suspicion were verified by examination, as stated in your question, if the geologist had actually been on the ground, he could not have helped but know absolutely the anticlinal nature of the hill, and from the development in McKittrick must certainly have regarded it as an oil proposition," is not sufficient to enable a competent geologist to determine the character of the Elk Hills. I don't believe a competent geologist who went in there in 1907 and examined and determined what I did concerning the character and structure of the Elk

Hills and McKittrick region, would have recommended the Elk Hills as a [1793] profitable investment of money. I would not have done so. Some of the McKittrick formation was infolded within the Monterey in the vicinity of the town of McKittrick. After the building of the McKittrick anticline and the disturbance of the Tulare time, the McKittrick anticline was again subject to a pressure, lateral pressure, and it was during that time that very likely some of the sands near the bottom of the McKittrick were infolded or included in the structure. It is possible that there should have even been a sliding-over, that is, a portion of the McKittrick anticline may have been forced on over and over-shooting above the bed-sands of the McKittrick, and these sands may be now contributing to the pay zone or actually constituting the pay zone about the area of the Reward and the Jackson properties in the McKittrick field. That sand might be a portion of the Santa Margarita; but the Santa Margarita is that portion—in grouping the Monterey, it has been called, or parts of the lands have been called Monterey-Santa Margarita. Santa Margarita, being somewhat of a sandy nature, it is that portion of the Monterey time when we are coming back to shallow water, the shore-line conditions again. And partly in support of an idea or classification when the name "Santa Margarita" was placed in the middle Miocene division for the geology of the Coalinga field further north. But the sands of the Santa Margarita may also contribute to

it. I have not been able to determine exactly to what period those sands belong. I have looked for fossils. The sands of the McKittrick front are characterized mainly by the presence of a well known fossil. Nearly all the wells show it. And that sand appeared in the sands of the wells further back in the McKittrick anticline. The Lakeview gusher is situated rather close to the old shore-line. The sand at that point was considerably thicker than the sand further out. I have found from an investigation of the well logs that further towards the plains, beginning with the wells upon the edge of the hills and carrying them **[1794]** out towards the Buena Vistas, there is a slight thinning of the thickness of the oil sands.

I don't know of an example in the California oil fields of the Horizon theory given by Mr. Veatch where he assumed the existence of an outcrop thirty miles along the Temblor Range and said that there is an oil-bearing horizon or zone beneath the valley out a distance of fifteen miles at right angles from the line of outcrops. My conclusion as to the Elk Hills was based principally upon my knowledge of the McKittrick field and the conditions to the west, which were controlling features of any later geology.

RE-CROSS EXAMINATION
OF
W. H. OCHSNER

My work for the Associated Oil Company, principally, was the investigation of proposed purchases or properties developed. I did not look up the pro-

duction of any of their wells except such as had a direct bearing on a particular problem in the neighborhood. I don't know the average production of the Associated Oil Company's wells in the West Side field. I would think that it was more than fifty barrels a day, but I really don't know. I suppose the average production of the McKittrick wells would be in the neighborhood of fifty or sixty barrels. The total average of the wells in the West Side field should, I think be more than one hundred barrels, but I really don't know how much it would be. I could hardly guess.

The Bellridge field is about three miles from the shore-line I have mentioned and that shore-line is about eleven miles from the Lost Hills, right out in the plains. From the crest of the Kettleman Hills, the top of the anticline, it is about eight and a half miles to the shore-line. The Lost Hills and the Belridge are producing territories and the Kettleman **[1795]** Hills may become such. These facts do not justify Mr. Veatch's horizon theory.

The Lost Hills, Bellridge and Kettleman Hills are not as analagously situated from the line of the outcrop as the Elk Hills are situated from that line because the Buena Vista Hills lie in part between the Elk Hills and the line of the outcrop mentioned. The western part of the Elk Hills is in no wise cut off from the line of the outcrop by the Buena Vista Hills and the lands involved in this suit are partially or not entirely so cut off. As to Sections 24 and 26 in

30-23 and Section 30, 30-24, I should say that the Buena Vista Hills do not act as a barrier. I do not think there is a continuous correlation of the oil-sands right through from the seepages on the front of the Temblor Range and the lands involved in this suit.

I have said that our well in the Kettleman Hills had cost about $147,000, which, taken as a basis, would make the well cost $35 per foot, and assuming it to be a fact that a 3800 foot well of the Associated Oil Company on Section 26, 30-23 cost, altogether, $52,000, there would be a difference of 300% in favor of the Elk Hills on the eventual cost of sinking wells. The drilling in both the Bellridge and the Elk Hills starts in the Tulare formation. The drilling in the Bellridge through that formation is shallow and after a short distance enters the McKittrick. We found no difficulties in drilling there.

My last trip into the Elk Hills was, I think, sometime about the close of 1909 before there were any drilling operations at all there. And such statements as I have made, relative to the evidence shown by drilling there, were not made from my personal observations.

Referring to the wells on the anticline of the McKittrick front I have said that they were all abandoned and that they were not commercial. Oil was discovered in the **[1796]** Nacarima well, on Section 6 of 30-22 on that anticline, and, as I have said, the U. S. well on Section 6 of 30-22 on that anticline was

abandoned at the time of my investigations. I understand that a small amount of fuel oil is being taken from that well. In the sense of further development, I was not mistaken in my statement that that well had been abandoned. A discovery of a successful well is followed by subsequent development and that well was abandoned, everything was gone, at the time I visited there. I am not aware of the fact that the Mehaska well, on Section, 30, 29-21 is now producing 150 barrels of oil a day. The production has been reported to me at different times. A 150 barrel well is not a commercial proposition on that anticline at the present time, with the present prices of the character of oil. They are selling oil from that well but are not drilling any more wells. I should say that that well is not paying, upon the investment, or it is evident that there would be further development.

The anticline, on which the wells I have just mentioned are, runs on clear through the Elk Hills to Section 32 of 30-24. The structure is continuous. There are disturbances and offsets, but generally speaking, it is continuous.

I would not be able to determine whether the Elk Hills were oil-bearing or not from an examination limited to the eastern portion of the Hills in Township 30, Range 24. It would require an examination of the entire structure to determine where the oil lies.

A well producing one hundred barrels a day of

twenty-eight gravity oil would yield a gross earning of $55.00 a day and if it kept up that yield it would pay for itself in three years, if it cost $65,000 to drill it, and I would consider such a well in the Elk Hills a commercial and paying proposition, if it kept up.

The statement made by Dr. Branner might or might not be **[1797]** true when he said, "I should not expect it to influence it to the disadvantage of any accumulations. In fact, I anticipate that if I could take off the oil-bearing beds, the whole series—strip them right away down until we come to the Monterey shales—that I might find those shales more or less folded and ending right against the old ground surface on which these later and oil-bearing beds have been laid down; but, so far as structural relations are concerned, I should consider that a sort of thing rather favorable than unfavorable to the accumulation of oil in the overlying beds," in answer to the following question: "From your examination, Doctor, of the Elk Hills and the Buena Vista Hills and your knowledge of the surrounding and neighboring regions, do you consider that it is at all probable that the Monterey shales are folded under the Elk Hills or faulted in any way, that is, in such a way as to disturb the commercial value of the oil which underlies those hills?" There is no way of determining the correctness of that statement; I said that there was a chance that the Monterey was not bent upward in the anticlinal uplift with the building of the Elk Hills.

I do not agree, absolutely, with the statement of Dr. Branner, that he would anticipate that if he could take off the oil-bearing beds and strip them down to the Monterey shales he might find those shales more or less folded and ending right up against the old ground surface on which the later oil-bearing beds have been laid down." It is an anticipation which can be taken in either direction. I feel that it has two interpretations—either one might be correct. There is no way of determining. Dr. Branner might be correct and he might not. I have reasons to believe that I came more closely to the real condition on that particular problem.

If the Monterey shales are folded under the Elk Hills it would rather be to the advantage of the accumulation of petro- [1798] -leum there—by the migration of the oil from the Monterey in the over-lying beds of the McKittrick formation in the Elk Hills.

I was reasonably certain as to my conclusion about the Elk Hills, reached in the fall of 1907, but in the light of a good deal more experience than I had had, and in view of the extensive developments, I was looking for territory to develop, when I went there later, and I wanted to know if I had studied that territory properly; if I hadn't overlooked something; I might even now be overlooking something. I don't know that I probably overlooked anything in the Elk Hills, perhaps I did, I have no way of telling. I have often overlooked things, but we all do in the field.

REDIRECT EXAMINATION
OF
W. H. OCHSNER

In making my calculations about the well mentioned in my Re Cross Examination, paying for itself in three years, I didn't make any allowance for the cost of operation, which would amount to from twelve to eighteen cents and upward in a well 4,000 feet deep. I didn't figure in that calculation anything about breakage of machinery, sucker-rods, and so forth. I made it on the assumption that every bit of the income would be net profit and that there would be no decline in the production of the well. I agree with Dr. Branner's opinion that the presence or absence of the seepage in the Elk Hills would have very little to do with the forming of an opinion as to the oil character of the hills, or, in other words, that viewing the structure as he did, he could come to a conclusion in favor of the Hills without any special reference to the seepage. I would not come to the conclusion that he did in favor of the Hills. **[1799]**

D. S. EWING, a witness called and sworn on behalf of the defendants, testified as follows:

DIRECT EXAMINATION.

I reside at Fresno, California, and I am an attorney at law, and I have been practicing about twenty years in Fresno. I first became connected with the oil business in the Kern River fields in 1898, I think. I first represented some gentlemen who formed the

38 Fuel & Oil Company. I incorporated the Company and became a stockholder.

After going into the Kern River fields, I was there on an average of possibly once a month, and later, on an average of every ten days or two weeks. I was not in charge of any particular company, but was in touch with the operations by virtue of my interest individually in the property.

I went into the West Side of Kern County in either 1900 or 1901,—somewhere along there. I fix this date by the time of the organization and incorporation of the old El Modello Oil Company. Property of that company was west and possibly a little north of the townsite of McKittrick—I have forgotten the section. I was there in connection with the operation of that company. That company sunk a well there about 1200 feet and found no oil.

Shortly after that I was interested in the Casa Oil Company, which operated on eighty acres of land just a little west of the present townsite of Taft; that is, south of McKittrick in the Midway. My connection with that company continued up to the time of its failure, about a year after its incorporation.

After that I had no interest in a financial way in the oil business on the West Side until April, 1909, but I was the legal representative of several companies that operated over there for all these years from the time I first commenced. From 1900 or 1901, I went into the West Side on an average of more than [1800] once a month. I go now about every

ten days, and have been doing so for two or three years. I think I am familiar with the opinion amongst oil men for three or four years after 1900 or 1901, as to where oil could be found. In the first place we had an opinion that oil was not migratory in its character, and that it laid around in different places in pools, that is, in the early history of the oil business; and the general opinion, I think, among oil operators, without any question, was that oil laid there in the sands on the easterly side of the Coast range mountains with the slope towards the valley. I don't think there was much general opinion as to how far into the valley the oil went in those days. The idea was that from the outcroppings of the oil sands along the easterly side of the Coast Range mountains the stratification would dip at certain angles toward the plain,—that the closer you got to the outcroppings of the sands on the hillside the more certainly you would strike the oil, but in less quantities; the further out you got on the dip, and the deeper down you went, if you struck oil at all, you would get it in better quantities. From 1900 to 1903, there was not a well outside of the hills that I now remember in the McKittrick district. There was the El Modello Oil Company on section 20, a little south and east of the town of McKittrick, I think in 30-22. I think the California Standard and the Giant were north and west of McKittrick. There was an artesian well out on the plains north of McKittrick that had been drilled for oil, but they penetrated the

water sands and left it alone there. That was practically out in the flat, possibly a mile from the edge of the foot-hills, and was the furthest development east. It ran over a six or eight inch casing, about four feet high, and was a kind of sulphur water.

I was in the Elk Hills during those years to see what was there with reference to location for oil purposes. I examined other country in the vicinity of McKittrick beside the Elk Hills. **[1801]** I went from what we knew as the Temblor fields at that time,—I believe it is called Bellridge now,—south, to old Sunset, just below the townsite of Maricopa, clear through the Midway and McKittrick fields, and the Buena Vista Hills and Elk Hills.

I made no geological examination in the Elk Hills. I am not a geologist. I was looking for outcroppings of sand or other indications of oil, and found nothing that attracted my attention or fancy at that time to make me think there was oil there. I made no locations there, and didn't think there was oil there, and I have not changed my opinion since that time.

I was in the West Side every week or ten days during the rush into the Elk Hills in 1910. That rush didn't cause me to go into the Elk Hills. I didn't think it would pay me to go; didn't think there was oil there in any sufficient quantity. I was engaged in the oil business then. Financially, my own interests were at Maricopa, Kern River and Coalinga. Maricopa is the south end of what you call the Midway fields. I was interested as agent

and representative of other oil operators in the Midway and McKittrick districts.

I was once up to the north of McKittrick in the vicinity of what is now known as the Bellridge district in the early days. I did not make any locations there personally. Others with whom I was interested did. Nothing was done to develop oil on those locations. My associates still retain an interest in the property that was located at that time. I don't think my associates required any property in the Elk Hills.

CROSS EXAMINATION
of
D. S. EWING.

I am, and have been, practicing law in Fresno approximately twenty years. My practice keeps me busy, but I don't think I **[1802]** make quite as much money out of it as I do out of other things. I have never acted as counsel, solicitor or attorney for the Southern Pacific Company, the Southern Pacific Railroad Company, the Kern Trading & Oil Company, or the Associated Oil Company.

I was one of a committee that went to Bakersfield to organize the Associated Oil Company. I once had stocks and bonds in the Company but sold them years ago.

I was not subpoenaed as a witness in this case. I came here at the request of Mr. Lewers, the attorney for the defendant, and in response to a letter from him.

I went into the Elk Hills within a very short time after I arrived in McKittrick in 1900 or 1901. I went out as a great many others did at that time for the purpose of looking over the Elk Hills to see if it would, in my judgment, justify the making of mineral locations for petroleum. Prior to that time I had been interested in a financial way, in the Coalinga fields, possibly the latter part of 1898, but had not had any active supervision in the field of any oil properties. On that trip I approached the Elk Hills from the southwesterly side, but could not tell the particular section I went to. I don't know the length or width of the hills. I think I went from east to west from about the center, but possibly over the greater part of the westerly half; I might have gotten over the westerly half, I didn't know where I was. I don't remember positively whether I visited section 32 of 30-24 or not. I did not visit an oil cropping of sand, or gas blow-out, or evidence of waste of oil in that section. I didn't know about it at that time. I don't know what caused the Elk Hills. The fact that it was a structural unlift did not indicate to me at that time that it would be an ideal spot for the accumulation of petroleum—enough to justify me to operate there. I don't know exactly what you refer to when you ask about the structural character of the Hills. I think that some of those hills have been **[1803]** caused by violent eruptions in the past, with stratification underneath the earth's surface, distributed and tilted in accord-

ance with the contour of the hills to a certain extent. As to whether the Elk Hills was caused by volcanic eruptions or other violent eruptions, I can't say. My knowledge of oil geology, from a practical standpoint of the West Side fields, was extremely limited when I went into the Elk Hills. I can't say that my failure to find evidence which would lead me to the location of land for petroleum in those hills was due in a large part to my ignorance and lack of information from a general practical study of oil geology.

I was in the Elk Hills two or three times after that, possibly as late as 1902. I was still looking for oil indications on those trips. I didn't make up my mind on the first trip or I would not have gone back again. The last time I was there I satisfied myself to such an extent that I didn't go back again. I don't know of oil discoveries in the Elk Hills except by general information; never visited the wells brought in by the Associated Oil Company. My opinion would have been different if, when I was there in 1901, the Associated Oil Company had then brought in a well on section 30 of 30-24 which spurted oil for some days, and gradually increased its production from an estimated 50-bbl. well a day up to 406 barrels a day, and if there had been another well on section 26 cornering that section, which produced a number of hundred of barrels of oil until it was closed down, and if there had been a well on section 24, which produced a large quantity of oil until the gates were locked and the well capped, and

the force of the oil was pressing through the unions at the head of the well. But just let me make this one explanation. I might not change my mind now as to the quantity of oil in those hills unless I knew the depth of the sand, and the saturation of the sand, and things of that kind. A well that will spurt for a little **[1804]** while might after awhile not amount to anything. If the conditions I have mentioned above as to the wells had existed when I was there in 1901, that would have swayed me to this extent, that I would have located the lands, if I possibly could, and would have drilled to try to get oil. I did not in 1901, or shortly thereafter, make locations in other fields which subsequently proved to be good oil territory.

RE-DIRECT EXAMINATION
of
D. S. EWING.

I was attorney in a personal injury case against the Southern Pacific Railroad Company, and secured a verdict of $100,000.

RE-CROSS EXAMINATION
of
D. S. EWING.

The Company paid us $92,747.00 on the verdict I have mentioned above. I have never been very friendly with the Southern Pacific. **[1805]**

W. J. LUKE, JR., a witness called and sworn on behalf of the defendants, testified as follows:

DIRECT EXAMINATION.

By Mr. Lewers:

Q. You are a field agent of the land department of the Southern Pacific Railroad Company, are you not?

A. Yes sir.

Q. And how long have you been connected with that department?

A. Three years the 5th of this month.

Q. And are you a graduate of any institution, Mr. Luke?

A. Yes sir.

Q. Of what institution?

A. The School of Mines of the University of Nevada.

Q. And when did you graduate there?

A. 1898.

Q. And following your graduation what occupations did you follow, in a general way?

A. Why, mining, and such business as would be connected with mining, up and down this country, through the states of Nevada, California, and South and Central Amreica.

Q. And during that time you had no experience in connection with the oil business, did you?

A. Nothing but just one or two small examinations that amounted to really nothing; preliminaries only.

Q. Have you done any work in connection with

the collection of data in the Elk Hills concerning this suit now on trial?

A. Yes sir.

Q. What work have you done in there, that is, what data have you been engaged in collecting?

A. Well, I have gone over the land in the suit, together with other lands nearby, and endeavored to find out the facts in connection with the development that has gone on there and as to the [1806] present status of that development.

Q. Well, what have you done with reference to the wells?

A. I have visited all of the wells in that township, 30-23, that contain the lands in suit, and have also visited all of the other wells that are immediately contiguous to that territory.

Q. Have you collected any data with reference to those wells?

A. Yes; I have collected logs in a great number of them.

Q. And have you, as a result of the work that you have done in there, prepared any map or plat?

A. Yes.

Q. Have you that map?

A. Yes.

Q. Will you produce it?

A. (Produced)

Q. Now, what is that map intended to show? State as briefly as possible, Mr. Luke.

A. It is to show the development, and the approx-

imate location of the same, in the Elk Hills territory and the lands immediately contiguous to it.

Q. At what time?

A. From 1911, up to the first of this year.

Q. Up to the first of 1913?

A. I should say twelve—change that—to 1913.

Q. And what, if anything, does that map show with reference to the depth of wells?

A. It shows the depth of all of the wells that I was able to obtain logs of.

Q. Well, did you obtain data as to the depth of the wells from any other source than from logs?

A. Yes. I was told the depth of some of those wells by the men who sunk them, or by officers of the company who didn't have logs of the same, which I was unable to obtain. **[1807]**

Q. Did you get any data from the evidence that was offered or introduced in this case?

A. Yes; also from the evidence that was offered in this case.

Q. Now, do the various marks that you have indicated and described in the legend on the map fairly represent the conditions as you found them on the ground?

A. They do.

Q. And how about the various indications of depth which you have marked upon that map opposite the indication of the various wells? Are those the result of the investigations that you have made?

A. They are.

Q. And are they, as far as you have been able to make them and ascertain, accurate?

A. They are. To the best of my knowledge they are correct; as far as I have been able to get at it.

Q. And have you visited all of those properties?

A. I have.

Q. When were you last in there, Mr. Luke?

Q. I was last in the Elk Hills—I can give you the exact date, if you wish it.

A. Well, approximately. The exact date is not necessary, unless you can get at it readily.

A. I can get it rather readily, I think. It was in November of last year, 1912, along about the 19th or 20th of the month; along thereabouts.

Q. What development work was going on at that time?

A. There was nothing going on in the Elk Hills at that time at all in the way of development work.

Q. What was the condition of the various oil properties that you observed?

A. They were all standing idle, some of them having been torn **[1808]** down and others standing idle.

Q. And you say no work was going on at all?

A. None that I could see anywhere.

Mr. Lewers: I now offer this map in evidence.

Mr. Mills: Preliminary to any objection which I may desire to make to the offer, I want to ask Mr. Luke some questions:

Q. Was this map prepared by you personally, Mr. Luke?

A. Yes sir; that is to say, I prepared the tracing of the map. It was then inked in by the draftsman in our office and the blueprints were made in our office. I didn't make these blueprints. The tracing I prepared in pencil, and he inked it in.

Q. So that this blueprint was not made by you at all?

A. No; the blueprint was not made by myself. It is a blueprint made from my tracings.

Q. How do you know it was made from your tracings?

A. Because I have compared it with the tracings.

Q. You have compared it, so that you know it is an exact copy?

A. Yes sir. It is an exact copy of the tracing.

Q. Now, you say that you got logs of some of the wells?

A. Yes.

Q. What wells referring to this map did you get logs of? You might start at some definite place from which we can go across the map.

A. Yes. We will start in Township 30-23 on Section 20. I didn't procure the log of that well.

Q. You say you didn't obtain the log of the Scottish Oil Fields Limited, as shown on Section 20?

A. No sir.

Q. Of 30-23?

A. Personally I did not.

Q. Did you get the log which was introduced in evidence, which you say was introduced in evidence?

[1809]

A. I have seen a copy of the log before it was introduced and took the depth from that.

Q. Then you didn't get your data as to the well from the log which was introduced?

A. Yes sir.

Q. I thought you said you got it from a copy of a log which was introduced.

A. When I said "copy," I meant the log itself. I saw the log, the papers that represented the log.

Q. Who showed you the log on the Scottish Oil Fields Limited?

A. It was shown here in this room, I believe.

Q. Did you get it from any officer of the Scottish Oil Fields Limited?

A. I think Mr. Stork had it here.

Q. And he showed it to you prior to his going on the stand?

A. No; I think it was after it was introduced that I saw the log. I think so.

Q. Did you see any purported log of the Scottish Oil Fields Limited at any time before Mr. Stork brought it here to the city of Los Angeles?

A. No sir; I did not.

Q. Did you see it at any time before it was introduced in evidence?

A. I think not.

Q. That was a well, was it not, of which the log referred only to that portion of the well which was drilled by the rotary, and showed no portion of the well which was drilled by standard tools?

A. I believe it did.

Q. How is that?

A. I believe it did. I believe your supposition is correct.

Q. Then, so far as the well on Section 20, to which we have referred, is concerned, your information was obtained from a log [1810] which only showed about one-half of the drillings?

A. Showed its depth.

Q. Showed no portion of the formations which were passed through down to the time they put it on the rotary?

A. No; I believe it did not. I would also state, in connection with that same well, that Mr. John Lang, who testified on the stand here, who was interested, also told me the depth of the well.

Mr. Mills: I move that that be stricken out, as not responsive to any question on my part, and a mere volunteer statement of the witness.

Mr. Lewers: I submit it should stand, as being responsive to the general question.

Q. By Mr. Mills: Now, take up the next one.

A. Coming over to Section 22.

Q. In the same tonwship?

A. In the same township, 30-23. Those three wells were put down by the Associated Oil Company, and I saw those three logs. They were furnished me by the Associated Oil Company.

Q. Were these three logs furnished to you by the Associated Oil Company at the same time?

A. Yes.

Q. When was that?

A. Oh, I can't tell you the exact date. I didn't make a note of the exact date that I got them. It was sometime along in the fall of this last year.

Q. September?

A. No; it was prior to that, I think.

Q. Now, who gave you these logs on Section 22, that is, what official or employee of the Associated Oil Company?

A. They were given to me directly by Mr. Jeffries, who obtained them from one of the officials of the company.

Q. Who is Mr. Jeffries? **[1811]**

A. He is an associate of the land department working on this same case with myself, and he obtained them, I think, from Mr. Williams.

Q. And who is Mr. Williams?

A. He is one of the geologists of the Associated Oil Company, I believe.

Q. Then, you got the logs of those wells on Section 22, not from any one directly connected with the Associated Oil Company, but at second-hand through Mr. Jeffries?

A. Yes sir; personally he handed them to me.

Q. How do you know that they are the logs of those wells?

A. They are marked as such; they are on their papers, they are on their forms.

Q. Is that all you have by which to know that they are the logs of those wells?

A. Yes; that is the general way that I know that they are the logs of those wells.

Q. How many logs of the Associated Oil Company did Mr. Jeffries have at that time?

A. I couldn't say.

Q. Did you see any others in his possession at that time?

A. I don't think I did.

Q. Or at any other time?

A. Yes; he got some other logs from them.

Q. Mr. Jeffries was enabled to get the logs from the Associated Oil Company by reason of the fact that that company is a subsidiary of the Southern Pacific Company, defendant? Is that so?

A. I can't tell you anything about that.

Q. You know, in a general way, don't you, that to be true?

A. I know that the Associated Oil Company, in a general way, is a subsidiary of the Southern Pacific Company, at least I understand such; but whether that had any influence on Mr. Jeffries being **[1812]** able to get these logs or not I can't say.

Q. Now, have you those logs with you?

A. No; I have not.

Q. Where are they?

A. I can't tell you. I do not know where they are at present.

Q. Whom did you give them to?

A. I gave them to Mr. Anderson.

Q. Who is Mr. Anderson?

A. Mr. F. M. Anderson.

Q. The gentleman in the room—the geologist for that company?

A. I believe he is a geologist for the Universal Oil Company, or was at that time.

Q. In what way is he connected with the Southern Pacific Company or any of the defendants in this case or any of the subsidiaries?

A. I have no idea; I don't know whether he has any connection with them at all or not.

Q. You mean by that with the Southern Pacific Company and the Kern Trading and Oil Company?

A. Yes sir.

Mr. Mills: Mr. Anderson, have you got those logs?

Mr. Anderson: I am not on the stand, Mr. Mills.

Mr. Lewers: You can answer.

Mr. Anderson: Yes; I have them.

Mr. Mills: Have you those logs here?

Mr. Anderson: Yes sir.

Mr. Mills: Will you produce them?

Mr. Lewers: We will produce them, Mr. Mills.

Mr. Mills: I ask that because the government has been unable to get the Associated logs of those wells.

Mr. Lewers: I think Mr. Martin testified that he got them confidentially but he didn't like to tell about them. **[1813]**

Mr. Mills: I am stating that so far as I know I have never seen a log of the Associated Oil Company and have been unable to get any.

Mr. Lewers: I wish you would have asked me; I

would have used my influence to get you one or three or four of them.

Mr. Mills: It is all well enough to make that statement now generously on the record when you are about to produce them yourself.

Q. By Mr. Mills: Take Section 24.

A. Those were obtained in the same way.

Q. From Mr. Jeffries?

A. Yes; he went down there and got them for me.

Q. And you know nothing about the Associated Oil Company's logs on Section 24 or 22 as correctly delineating or representing the depths of those wells except what Mr. Jeffries told you or what appeared upon the papers which he handed you?

A. I took the papers as a fact.

Q. Read the question again, and see if we can get a different answer.

(The question is read.)

A. Mr. Jeffries did not tell me anything about the logs. Therefore I got no information from him regarding it. The logs themselves were the evidence I took.

Q. And you know nothing about the correctness of what you put on the map here with respect to the Associated Oil Company's wells on Section 24 excepting what you found on some papers which Mr. Jeffries handed you?

A. Nothing other than what the log showed.

Q. Will you read that question again? And please answer it again.

Mr. Lewers: I submit that the answer is responsive, Mr. Mills. (The reporter reads the question.)

Q. By Mr. Mills: Add this: And which purported to be the logs **[1814]** of those wells on Section 24.

A. I took them from the logs—

Q. Did you know anything about the correctness of what you put on this map excepting what you took from the papers which Mr. Jeffries handed you?

A. Certainly not.

Q. How many logs did you get on Section 24 of 30-24?

A. The four logs of the four wells shown there.

Q. What were they—in what form? What form were they in?

A. What do you mean by that?

Q. Were they in small sheets as kept daily by the drillers, or were they compilations in typewriting —a copy of the original log?

A. They were typewritten and, I should say, from the original logs.

Q. And that is true of all the logs you got?

A. Yes sir.

Q. They were copies of the original logs or what you supposed were copies?

A. Yes sir.

Q. Did you see the original logs of any of these wells?

A. Not of those wells in that section; no.

Q. I note that on the southwest quarter of Sec-

tion 24 you have a well which appears to be by your map 3887 feet deep.

A. Yes sir.

Q. And which you have in the legend represented as a well showing oil and not producing?

A. Yes sir.

Q. Were you present on Section 24 when that well was brought in?

A. No sir.

Q. You merely mean that at the time you visited that section [1815] of land and that well the Associated Oil Company were not operating the well? Is that what you mean by that legend?

A. The well was not producing at the time I saw it.

Q. In other words, it was not being operated?

A. Not being operated.

Q. So that it might be a productive well and yet your map would not show it?

A. It might have been; yes sir. It might be.

Q. For all that you know now that well should be a producing well and so marked on your legend?

A. If it was a producing well I think it would be producing, and it is not producing and was not at the time I was in there in November of 1912.

Q. Was it capped at the time you were in there?

A. No; that is not capped—I don't know whether it was capped or not. I didn't go down to the rig at that time. I didn't go into the derrick at that time. There was no steam in their boilers.

Q. I didn't ask you about the boilers. I asked you whether the well was capped.

A. I couldn't tell you.

Q. Were the gates locked?

A. I don't know.

Q. Was the well at the time you were there making gas?

A. Not that I saw or heard.

Q. Do you know anything about the production of oil from that well on the southwest quarter of Section 24 at any time prior to the date on which you visited the well?

A. I have heard something of it in this courtroom; that is all.

Q. Did you see a sump-hole there?

A. Yes; there was a sump-hole there. **[1816]**

Q. Did you see a body of oil in the sump-hole?

A. There was a little oil in it; very little.

Q. Was there any evidence about the derrick of that well which would indicate to you that the well had been a spouting well at the time it was brought in?

A. The derrick is black with oil, whatever that might mean.

Q. Are you sufficiently familiar with oil conditions and oil fields generally to know what that does mean?

A. Yes.

Q. What does it mean?

A. It means there has been oil in that well.

Q. And it also means, does it not, that the well spouted?

A. It might possibly and it might not. It depends on the age of the well. If the well had been producing for a number of years, the derrick might be black with pulling of the tubing and one thing or another and the splashing of oil around. It might get black in other ways.

Q. That well at the time you visited it was entirely black and covered with oil?

A. It is now, as much as I know.

Q. Was it at the time you visited it?

A. Yes; in November. The first time I saw the well it was not. That was in March, 1912.

Q. I am referring to the time when you visited the well to get the data in the fall of 1912.

A. At that time the well was black or, I should say, the derrick was black.

Q. That indicated to your mind at once that that well came in as a spouting well?

A. Well, yes; probably it did. I naturally supposed so.

Q. You were somewhat surprised that the Associated Oil Company had shut that well down?

[1817]

A. No; I had no surprise in the matter whatever.

Q. Do you know how many thousands of barrels a day that well was throwing at the time it came in?

A. No sir; I do not.

Q. Do you know whether or not the logs on the

wells on the northwest quarter, the northeast quarter and the southeast quarter, or any of them, showed oil?

A. No; they did not according to my recollection of it at this time.

Q. Referring to the well on the southwest quarter of Section 24 on which you say the derrick was black with oil when you visited it, how far away was the engine and boiler from the derrick itself?

A. Oh, I don't hardly know. It was probably—I would say maybe a thousand feet or such a matter, and it may have been less. I wouldn't try to say. I didn't measure the distance and didn't give it much thought.

Q. It was put at a safe distance away from danger of fire when the well was brought in, was it not?

A. That is the general rule with all that business everywhere.

Q. And in this case particularly the boilers and engines were set at a considerably further distance than the average well?

A. I think there was a reason for that at that particular point.

Q. Just answer the question. We will get at the reason if we want it. Isn't it true?

A. Yes; they were. It is quite a distance. I can't say how far, but it is quite a distance.

Q. Did you take any precaution at that time or any pains to measure the capacity of the pump of that well?

A. No sir.

Q. Did you notice when you visited the well in the fall of 1912, on the southwest quarter of 24, about the quarter of a mile **[1818]** distant from the derrick itself, on the road a sign placed there by the Associated Oil Company warning automobiles not to come near?

A. I do not recall seeing that; no.

Q. That would not have prevented you from going up anyway?

A. I wasn't running an automobile.

Q. You were driving a mule?

A. I didn't have a mule. It was a couple of sorrel horses, one of which was a mare.

Q. Proceeding from that apparently rich territory, let us take up Section 26.

A. Those logs were obtained in the same way from the Associated Oil Company.

Q. And by "those logs," you mean the copies or purported copies of the original logs of the wells on Section 26 in 30-23.

A. Yes.

Q. Did you get the copies or purported copies of the original logs of the Associated Oil Company on Section 26 from Mr. Jeffries at the same time you got the other copies on 22 and 24?

A. I can't recall exactly whether they all came at once or not. I think not. I think there was some delay in having copies made, or something of that kind. At any rate, they were strung along over a period of probably a month. There was no great

hurry at the time I was getting them. I don't think they all came at once. I would rather say not.

Q. The well represented on the southwest quarter of Section 26 in 30-23, you have marked on your legend as a well showing oil, not producing?

A. Yes.

Q. By that you mean, do you not, that it was not being operated at the time you were there?

A. At the last time.

Q. You don't mean by that legend to have the court infer that [1819] it never produced oil and that it could not now produce oil?

A. No; because the well has produced oil.

Q. Do you know how many barrels of oil it has produced in a single day?

A. No; I do not. I have heard here on the stand. I don't know.

Q. Mr. Luke, what was the condition of the derrick on that well when you visited it?

A. It was a black derrick.

Q. All over with oil?

A. Yes.

Q. What did that indicate?

A. That it came in as a gusher or spouter. I don't know as I thought anything particular about that, whether it was a gusher or not.

Q. Now, that you do think about it, what does it indicate?

A. It indicates that more than likely there was a flow of oil there.

Q. And a considerable flow of oil in the form of a gusher, to blacken that well?

A. That I wouldn't say, because "a considerable flow" is a very indefinite term. The word "considerable" may be a great deal or not. It depends on what you wish to infer. The land surrounding it is not dark to any great area.

Q. Were you there when the well was brought in?

A. No sir.

Q. Was the well capped and the gates locked when you were there?

A. No sir.

Q. Did you go inside of the derrick?

A. Yes sir; I have been inside of the derrick two or three times. **[1820]**

Q. You have located that well in the southwest quarter of Section 26?

A. Yes.

Q. Isn't it true that that well is located in the southeast quarter of Section 26, as a matter of fact?

A. I think not. I think the well is approximately in its correct location.

Q. Isn't it true specifically that that well is located in the wrong quarter section on your map?

A. I don't hardly think so.

Q. Would not its proper location be in the southeast quarter section?

A. I rather think not.

Q. Did you find a quarter-corner when you located that well?

A. Yes. I know where the quarter-corner on the south line of that section is.

Q. Did you go and locate the quarter-corner on the south line of that section at the time you took your data?

A. No; I did not.

Q. Then you don't know whether you are right in placing that well on the southeast corner now, do you?

A. Yes; I think I am correct.

Q. Although you did not find the quarter-corner at the time you got your data?

A. I found the southwest quarter prior to the time I started to make this map, and I have seen it two or three times since, and my recollection is that tne well is in about its correct position.

Q. When did you find the quarter-corner on the south line of 26?

A. I found it along in March of this last year. I ran the line over from the southeast to the southwest and I crossed the quarter-corner. It is a stone.

[1821]

Q. Did you at that time note that the derrick is on the southwest quarter?

A. I think I did.

Q. And it is because you then correctly fixed the position of that well that you now represent it on this map as on the southwest quarter?

A. Yes; I believe I have got the well in its correct position. To the best of my knowledge it is

right. That is, approximately right. It may be a few feet one way or the other, but the scale would hardly show that. I think it is correct.

Q. Is your map in all respects as accurate as you have placed the accuracy on the southwest quarter of Section 26?

A. My map is intended to be accurate as nearly as I could make it, from the best information I was able to obtain.

Q. And the accuracy of the location as you have placed it of the well on the southwest quarter of Section 26, is a fair criterion to judge the rest of the map by?

A. I will state that I believe the well is in its correct position, and you can judge it as you please.

Q. Will you please read the question again, Mr. Reporter? (The reporter reads the question.) Is that true?

A. The well is in its correct position as I think. You can judge the map from that or from other data as you wish.

Q. In other words, the accuracy of the location, as you have placed it, of this particular well in the southwest quarter of Section 26 is to be taken with the same degree of confidence as the accuracy of all those locations and all other data that you have prepared with this map?

A. Yes.

Q. If you should happen to be mistaken about that, you might be mistaken about any other data on the map?

A. Possibly so and possibly not. That well has no relation **[1822]** to any other part of the map except its own. There was no other well tied to that well. There was nothing else done from that point.

Q. How much oil was in the sump at the time you visited this well on the southwest quarter of Section 26?

A. I couldn't tell you?

Q. Were there five or six thousand barrels of oil?

A. No sir.

Q. How large was the sump and what was the capacity, as near as you can recollect it?

A. It was just a little dam across the bottom of the canyon. There never was a properly constructed sump. How much oil there was there is difficult to say, because I do not know how much water there was at the bottom. There might have been just a skimming of oil on top, for all I know, because I didn't go down there to examine.

Q. That includes all the wells of the Associated Oil Company in that township, does it not?

A. Yes sir.

Q. What did the log of the well on the southwest quarter of Section 26 in that township show as to the amount of oil it was producing when it was brought in?

A. I do not recall that it showed any.

Mr. Mills: Mr. Anderson, may I have the log of that well for a moment—the southwest quarter of 26?

A. It may, but I do not recall whether it did or not.—(Log of a well is produced by Mr. Anderson.)

Q. By Mr. Mills: Referring to well No. 1 on the southwest quarter of 26 of 30-23 that you have been talking about, the copy of the log which was furnished you showed gas at a depth between 1086 feet and 1095 feet, did it not?

A. It would be a mere matter of recalling from memory. I don't [1823] recall that now. It would be difficult to remember.

Q. Look at this.

A. Some gas 1086 to 1095.

Q. Is that correct?

A. Yes.

Q. Is this the same copy of the log from which you got this data which you placed on the map?

A. I believe it is.

Mr. McCormick: You are now directing his attention to the log handed you by Mr. Anderson?

Mr. Mills: Yes. Let me ask you what this pencil notation is on here.

A. That is not in my writing. I don't know what it means.

Mr. Mills: Do you know, Mr. Anderson?

Mr. Anderson: Yes; I know what this is.

Mr. Mills: Did you make that?

Mr. Anderson: I did.

Q. By Mr. Mills: I see that Mr. Anderson had placed here somewhere between 2900 feet and 3100 feet on this log in pencil, "Well flowed three or four barrels of oil per day between 6⅝" and 4½" while drilling. The oil must have come from between 2811 feet to 3573 feet." Was that on this copy which you

had at the time you made this map and got the log?

A. No sir.

Q. Did you compare this copy of the log with the actual log itself of the well?

A. No; I did not.

Q. You don't know, then, that this is a copy of the log?

A. Of my own personal comparison, no.

Q. And you say the same with reference to all the logs which you examined—all the copies of the logs which you examined—as to the Associated Oil Company's wells in that township and in **[1824]** 30 of 30-24?

A. Yes; I never had any opportunity to compare them with the original logs.

Q. There is a notation here of 159 feet of oil-sand from a depth of 3860 feet to a depth of 4027 feet. Did you place that on the purported copy of this log?

A. No sir; I made no pencil notations whatever, as I recall.

Q. Did you observe when you examined this purported copy that at a depth of between 3342 and 3360 feet there was a notation of a trace of oil?

A. I possibly did when I examined it.

Q. Did you also note that at a depth of between 3580 feet and 3593 feet ehere was a notation of 13 feet of blue shale showing heavy oil?

A. Yes; I possibly observed all of that while I was looking over the log—if it is there.

Q. And also there was shown on this copy of the

log 60 feet of blue shale showing light oil at a depth of between 3746 and 3806 feet. I am reading now from this copy of the log handed me by Mr. Anderson. Did you notice that?

A. I probably did, yes, as I read the log over.

Q. And there was also shown a depth of 42 feet of blue shale showing oil between 3806 feet and 3848 feet?

A. Yes.

Q. And that there is a showing of three feet of oil—

A. Three feet of oil?

Q. Three feet of shale showing oil and gas from 3857 feet to 3860 feet. Did you notice that?

A. Possibly I did. More than likely, if it is there.

Q. So that from the depth of 3704 feet to 4027 feet there was a showing on the copy of the log which you had of 324 feet of shale and sand showing oil?

[1825]

A. If your figures are correct in summing it up, probably that is true.

Q. Did you observe also a notation placed on this log showing that the first week's production was 45 barrels per day net, the second week 30 per day net, and the "present rate" 25 barrels per day, 38 degrees Baume at 60 degrees temperature." Did you observe that on the copy of this log?

A. I think I did.

Q. Why was it when you observed all those things that you placed in your legend a notation that

this well was a well showing oil and not producing?

A. Because it was not producing when I saw it.

Q. And solely for that reason?

A. To be sure. The well was not producing.

Q. As a matter of fact, the legend on your map is somewhat misleading as to what that well produces, even from the copy of the log itself which was handed you?

A. The legend of my map and the map itself aims to show the facts as to the condition of those wells at the time that I made the map. The well was not producing at that time. What it might be able to do, I don't know.

Q. I think you said the map was up to January 1st, 1913.

A. Yes sir.

Q. Are you acq uqinted with Mr. King, the superintendent of the Associated Oil Company's operations on those wells?

A. I have met Mr. King, yes sir.

Q. Had considerable talk with him?

A. No, not a considerable talk. I talked with Mr. King probably twice, probably five or ten minutes at a time.

Q. Did Mr. King tell you at that time that the well on that section or on any section in 30-23 which that company had drilled was a producing well commercially when it produced 45 barrels of **[1826]** oil a day.

A. He did not, because I didn't ask him anything about it.

Q. How much perforation was there put in the casing—the 4½" casing in the well on the southwest quarter of Section 26?

A. Unless the log shows, I don't know. If the log shows I have read it, but I don't recall it now.

Q. The copy of the log which is handed me by Mr. Anderson says, "4½" casing perforated from 3498 feet to 3300 feet with Hanst perforator, four holes to the foot, ¾ of an inch by ¼ of an inch." Did you observe that when you saw that log?

A. Probably I did.

Mr. Mills: Let me have those other wells.

Mr. Lewers: Which one do you want?

Mr. Mills: I want them all.

Mr. Lewers: Call for the one that you want and I will give it to you.

Mr. Mills: All right. Give me the one on the southwest quarter of 24 in 30-23. (Log of well is handed to Mr. Mills.)

Q. Mr. Luke, will you examine this paper which has been handed me by Mr. Anderson and state whether that is the copy of the log which you examined?

A. I think it is. I made no special notes on them to be absolute, but I think that is the copy of the log that I gave Mr. Anderson.

Q. Who told you to give these logs to Mr. Anderson?

A. I don't know as anybody told me to. I told

Mr. Anderson that I would get some of these logs and give them to him.

Q. Did you do it at the direction of anybody connected with the Southern Pacific Company?

A. I don't know as I had specific orders to do that. I was supposed to do that. Mr. Lewers talked this matter over with me. I don't believe he gave me any specific orders to do it. [1827]

Q. But it was understood by you that Mr. Lewers wanted you to give them to Mr. Anderson.

A. Yes; but I don't believe that he gave me specific orders.

Mr. Lewers: If you desire to have it appear on the record, I am able to make an admission.

Mr. Mills: I am satisfied.

Mr. Lewers: That these logs were turned over, as I recollect it, to Mr. Anderson under my direction specifically.

Q. By Mr. Mills: Did you observe at the time that you examined the purported copy of the log of the well known as No. 3 on the southwest quarter of Section 24 of 30-23 of the Associated Oil Company these remarks: "Completed perforating and placed well on pump May 23, 1912. Came in as gusher; settled down to regular production of 100 barrels 20 degree oil and 3,000,000 cubic feet of gas per day." Did you observe that?

A. I probably did. I don't recall it.

Q. Why was it if you observed that that you were willing to place on this map and represent this well as a well showing oil and not producing?

A. The well was not producing when I saw it.

Q. There was information, was there not, on the very copy of the log itself that this was in fact a producing well if permitted to produce, was it not, to your mind?

A. No.

Q. A well which came in as a gusher, settled down to a regular production of a hundred barrels a day of 20-degree oil and 3,000,000 feet of gas per day,—did that indicate to your mind at all that that well was a well which you should indicate, to be fair about this map, as a producing well if permitted to produce?

A. That indicated that the well had been a producing well. It was not producing when I saw it and therefore, I put it down the way I saw it. **[1828]**

Q. As a scientific man, did that indicate to your mind that that part of the Elk Hills was oil territory and good oil territory?

A. No; it did not. If the well was a producer it would have been producing.

Q. If the Associated Oil Company puts on its own copy of the log that a well comes in as a gusher on a certain day,—May 23, 1912,—and then settled down to a regular production of a hundred barrels a day of 20-degree oil and 3,000,000 cubic feet of gas per day, that would not indicate to you anything about the character of the lands in this suit, would it?

A. It indicates that there was in that well.

Q. Yes.

A. Exactly.

Q. And a considerable amount of oil and gas?

A. Both oil and gas.

Q. And that to your mind shows that wherever oil is found, when they get deep enough in the Elk Hills to find it, as they did in this well, that they find a considerable gas pressure with the oil? Didn't that indicate that to your mind?

A. It indicated to me just exactly what it said and no more.

Q. Did it indicate to you that there would be considerable gas found and great pressure when oil was found in the Elk Hills at any place?

A. No; not necessarily.

Q. Did not indicate that to your mind as a scientific man?

A. Not necessarily.

Q. Would it indicate to your mind, as one of the witnesses for the defendant has stated, that when oil would be found in the Elk Hills and was actually found, the Elk Hills would be another Spindletop?

A. I don't know anything about that.

Mr. Lewers: Objected to on the ground that the witness has not **[1829]** testified to anything of the kind, and the assumption is without foundation.

Q. By Mr. Mills: Did you see this log after Mr. Anderson took possession of it?

A. No.

Q. Then, you didn't notice this notation in pen-

cil with the question mark, "After three weeks' production 15 barrels per day"?

A. I don't think I ever saw that.

Q. Do you recall now how much perforation was put on the casing of this well?

A. No; not from memory.

Q. I will read to you now from the statement made on the log handed me by Mr. Anderson: "Perforation by Hanst machine from 3700 to 3100 rows 3/8 by 1, 2 holes per foot, from 3100 to 2500 rows 3/8 by 1, 3 holes per foot." Did you observe that when you looked at this log?

A. Possibly I did.

Q. That would be a perforation of 1200 feet of casing—from 3700 feet to 2500 feet?

A. Yes.

Q. The drilling of that well was finished, according to this log, on August 26, 1912. Is that correct?

A. I don't recall from memory. If the log states so I should say it was.

Q. And commenced on July 9, 1910?

A. Yes sir.

Q. Would you assume from the statement to which I have called your attention on this log of well No. 3 on the southwest quarter of 24 of 30-23, to-wit: That the perforation had been completed, "Placed well on pump May 23, 1912; came in as a gusher; settled down to regular production 100 barrels 20-degree oil and 3,000,000 cubic feet of gas per day", as the witness Mr. Ochsner, produced by the

[1830] defendant railway company in this case. on page 4503, assumed that the Elk Hills when oil would be discovered would be another Spindle Top, the same as the Buena Vista Hills?

Mr. Lewers: I object to the question on the ground, first, that it is not cross-examination of any matter brought out in the witness's testimony and, second, that it is a partial and, for that reason, unfair statement of the testimony of the witness referred to, Mr. Ochsner, in that counsel permits from his question an assumption made by him prior to that that if Professor Owen had thought that there was oil in the Elk Hills he might have thought it would be a Spindle Top. The entire thing was speculative.

Q. By Mr. Mills: Do you know what Mr. Ochsner, the witness, meant by the use of the word "Spindle Top"?

A. Yes sir.

Q. That is, a done-shaped structure full of oil which when tapped would produce a gusher?

A. Yes; the Spindle Top field in Beaumont, Texas.

Q. Were you present when he testified?

A. I don't remember whether I was or not. I heard part of his testimony.

Q. Did you hear me ask him this question: "In other words, it was your understanding of his" (meaning Professor Owen's) "remark, that if oil was found either in the Buena Vista Hills or the

Elk Hills, either one of them would prove to be another Spindle Top", and Mr. Ochsner replied, "Would be a large producer; yes." Did you hear me ask him that question and hear him make that reply?

A. I don't recall. I might have, but I don't recall it now. It might have been done. I might have been present and I might not. I was not there all the time while the examination was going on.

Q. Do you regard 3,000,000 cubic feet of gas per day as a large production or a small production of gas in the West Side field in this state? **[1831]**

A. Quite a production of gas.

Q. Do you regard it as a large or small production of gas?

A. Oh, I shouldn't say large in comparison with some that go twelve or fifteen million, and I wouldn't say small in relation to those that go a million or less.

Q. What would you say as to the average?

A. Fair.

Q. You would say it was fair as an avearge production of gas in the West Side field?

A. Yes, what little I know about that.

Q. What is the average production of gasers in the West Side field?

A. You will have to swear another witness.

Q. As a matter of fact you don't know, do you?

A. No sir.

Q. Did the derrick and the immediate vicinity

give evidence of the truth of the statement that that well, as stated on this log, came in as a gusher?

A. Yes sir; the derrick was black and there was oil on the ground for a short distance around the well. That looks like it had sprayed over.

Q. Did you hear the gas at the time you were there?

A. No.

Mr. Mills: Mr. Lewers, let me have the other logs on 24. Let me have the one on 30, 30-24. (Mr. Lewers hands Mr. Mills logs.)

Q. Where did you get the logs of the wells or the copies or purported copies shown on Section 30 of 30-24 of this map?

A. They came from the same source; from the Associated Oil Company through Mr. Jeffries.

Q. Mr. Jeffries is a special agent of the Southern Pacific Company, is he? Or, what is his position?

Mr. Lewers: We have no special agents. [1832]

A. I don't know what his title might be.

Q. By Mr. Mills: He is a detective?

A. No; decidedly not.

Q. What is his business?

A. He has been assisting in gathering some of the data in this suit.

Q. For the defendant company?

A. For the Southern Pacific Company.

Q. Is he connected as you are with the Southern Pacific Railroad Company land department?

Mr. Lewers: He is on special employment with

the law department but associated in this work in connection with Mr. Luke. You can call him an employee either of the land department or the law department. It is hard to say just what he is except that he is a mighty good man.

Mr. Mills: I agree with the latter part of the statement. He has been very clever in getting these logs, I must admit, from the Associated.

A. That is the easiest thing we have to do,—get logs.

Q. While we are on the subject of the case, did you get the logs from the Reward or Resolute Oil Companies?

A. I don't know.

Q. You would have got them if you asked for them?

A. Where are they?

Q. They are in part subsidiaries of the Southern Pacific Company. At least, the Southern Pacific Company owns forty per cent of the capital stock of those companies, doesn't it?

A. I don't know.

Q. Did you observe on the log of well No. 2 on the southwest quarter of Section 30 of 30-24 that from 2470 feet to 2722 feet there was a showing of sandy shale, blue shale, and sands showing oil and gas, at the time you examined that Log? **[1833]**

A. I probably did.

Q. Did you observe particularly a statement on that log that from a distance of 2711 feet to 2722 feet,

or about 11 feet, there was a statement of hard oil-sand showing lots of oil and light gravity oil-sand?

A. Probably I observed it when I looked the log over.

Q. And that there was one interval from 2635 feet to 2710 feet, or a distance of 75 feet, making a good showinig of oil?

A. I probably observed that too.

Q. What was the condition of the derrick when you saw it on this well?

A. Black.

Q. Did it indicate to you that it came in as a gusher?

A. Possibly it had; yes.

Q. Well, you heard that up there in the field?

A. Yes sir.

Q. It was generally known that that well did come in as a gusher?

A. I believe it did.

Q. And that it flowed for several days before sanding up or being capped down, at the rate of 406 barrels a day?

A. I have heard that statement made here in the court-room many times.

Q. Did you know that from any statement that you heard from people up there in the field?

A. No sir.

Q. Did you also hear at that time from anybody connected with the Associated Oil Company that that well was put on a gauge when it first came in

and was flowing at the rate of five thousand barrels a day?

A. I did not.

Mr. Lewers: Did you, Mr. Mills? [1834]

Mr. Mills: Yes, Mr. King made the statement, as I will show; that it flowed at the rate of 5,000 barrels a day when it first came in. I may be mistaken about this particular well, but it was one of those three wells that we are talking about.

Mr. Lewers: Perhaps the Oil World said that.

Q. By Mr. Mills: Did you observe the statement on this log to the effect that the initial production was at the rate of 72 barrels at 2600 feet, of a gravity of 25 degrees?

A. Yes; I suppose I did.

Q. How much of a sump was there at that well?

A. There was a small sump; I couldn't say what the cubical contents of it would be. There was very little oil when I saw it last or, in fact, at any time when I was there.

Q. During your visits there last fall, did you observe a pipe-line running from any one of these wells —a 4-inch pipe-line—down towards Fellows?

A. There was a pipe-line going down the hill from Section 26.

Q. Section 26, 30-23?

A. Yes sir; there is a pipe-line that runs down from there to Fellows.

Q. How many miles is it from there to Fellows?

A. I think possibly eight or ten miles, I guess, over there.

Q. What is the diameter of that pipe?

A. I didn't measure the pipe, but I would say it was a 4-inch pipe from looking at it.

Q. Where does it connect? At the reservoir tank?

A. I never made any particular examination to know where it did connect, but it runs right there by the tank.

Q. What was that tank used for?

A. An oil tank.

Q. A storage tank for oil taken from the wells?

A. I don't know where the oil is taken from. It is a small **[1835]** tank probably twelve feet in diameter by ten feet high.

Q. And this 4-inch pipe connects with that tank and runs to Fellows?

A. It appears to, with the well on 30 and one on 26 and one on 22. I took it that it was a fuel line for those wells.

Q. Do you mean to say that it was your opinion that that was a fuel line to run oil from Fellows up there?

A. That was my idea. I didn't give it any other thought.

Q. Do you entertain that opinion now, Mr. Luke?

A. Yes sir; I haven't thought about it since.

Q. Don't you know as a matter of fact that that pipe was for the carrying of the production of those wells?

A. No sir; I do not.

Q. What would it cost to lay a 4-inch pipe for a distance of twelve miles?

Mr. Lewers: Objected to as not cross-examination and that it is taking up unnecessary time in what is purely a fishing expedition.

Mr. Mills: Your witness that you produced has volunteered a statement that I want to cross-examine him about.

Q. As a matter of fact, Mr. Luke, pipe such as that would cost in the neighborhood of twenty to thirty or forty thousand dollars to lay for that distance?

A. Possibly it would.

Q. And you know from what little knowledge you have of the well business that that was an absurd statement on your part that the company would expend forty thousand dollars to pump fuel up to those three wells from a distance of twelve miles, from Fellows, at an outlay of forty thousand dollars?

A. They had considerable more than three wells to furnish oil to.

Q. You now realize that that is an absurd statement, don't you? **[1836]**

A. No, I do not.

Q. Did you see any pumps in the sump-hole on well No. 1 in Section 30, 30-24?

A. Yes sir.

Q. How many pumps?

A. I saw one that I recall now. There may have been more. I saw one pump there.

Q. Connected with the oil in the sump-hole?

A. There wasn't any oil in the sump-hole when I was there. Oh, yes, there was probably a bucketful right in the bottom. There was a pipe from the pump down into the sump-hole.

Q. Did you hear any gas escaping there at that time when you were there?

A. No sir; I did not.

Q. Was the well capped at the time you were there in the field?

A. I couldn't say, as I didn't go into the derrick.

Q. And you don't know whether it was locked?

A. No; I drove right by.

Mr. Mills: Now, let me have the logs on 22. (Mr. Mills is given logs.)

Q. Did you observe on the copy of the log which was handed you of well No. 3 on the southwest quarter of Section 22, 30-23, the statement that from 2710 to 2980 feet showed gas and then immediately following, "Started to set No. 28 casing. Were instructed to suspend work August 26, 1911"?

A. I observed that, probably.

Q. Did you observe on the log of well No. 1 in Section 22 of 30-23 that at a distance of 610 to 614 feet there was a showing of gas, from 695 feet to 705 feet there was a showing of gas, that from 720 to 750 feet there was a showing of gas, and from 810 to 828 feet there was a showing of gas?

A. I probably did, yes, when I read the log.

[1837]

Q. That well was only continued to a depth, as shown by your map, of 1480 feet?

A. Oh. I thought you was speaking of the well in the northeast quarter. The southeast quarter, you said. Yes; 1480 feet.

Q. Yes. The well known as well No. 4 on the same section, that is, 22, 30-23, was continued, according to the log furnished you, to a distance of nearly 1185 feet. Is that right?

A. Yes.

Q. And had no showing at all of either gas or oil?

A. I believe not.

Q. The log furnished you of well No. 1, on Section 24 of 30-23 showed that drilling commenced on June 27, 1910, and continued until July 8, 1910, when it was suspended, and work was resumed December 26, 1911, and closed down January 15?

A. 1912.

Q. That date is not here. Is that correct?

A. I believe that is correct, as the log shows.

Q. That well only went to a depth of 95 feet?

A. Yes; just spudded in.

Q. The well No. 2, on the northwest quarter, went only to a depth, according to the log furnished you, of 1291 feet. Is that right?

A. Yes; I believe that is correct.

Q. And according to the log furnished you, there was no showing of either gas or oil? Is that correct?

A. I believe so; yes sir.

Q. And the well on No. 4 of Section 24, same

township, went to a depth of 1187 feet. Is that right? According to the log furnished you?

A. That is according to the log, as I recollect it.

Q. And there was no showing of oil or gas on the log furnished you? **[1838]**

A. No.

Q. Referring to the logs on wells 2, 3 and 4, on Section 26, they also were shallow wells, all of them, were they not?

A. Yes.

Q. The deepest being 518 feet and the shallowest 332 feet?

A. Yes.

Q. They hardly got through the surface formation?

A. Probably not.

Q. The log of well No. 2 shows that work commenced on December 15, 1910? Is that right, or is that 1911?

A. Just a minute. I have a pencil mark here that will show. Well No. 2 commenced December 15, 1910.

Q. And work was suspended on that well on—

A. March 4, 1911, I believe.

Q. January 17, 1911.

A. I have a pencil note here that it ceased March 4, 1911.

Q. Well, the log, here, of No. 2, shows January 17, 1911. Is that correct?

A. Well, that is possibly correct; yes sir.

Q. And on well No. 3, of Section 26, work commenced on January 26, 1911, and was suspended on February 23, 1911?

A. Yes.

Q. Is that right?

A. I believe that is correct.

Q. And on No. 4 work commenced December 31, 1911, and suspended February 23, 1911?

A. I believe that is right, according to the best information I have.

Q. Referring, now, to wells 3 and 4, of which the logs, as I understand you, Mr. Luke, furnished by the Associated Oil Company through Mr. Jeffries showed depths, respectively, for well 3, 445 feet and for well 4, 441 feet, on Section 30 of 30-24. **[1839]**

A. Yes sir.

Q. Do you recall whether there was any showing of gas or oil on those logs?

A. I believe not. They were just through the surface; they hardly got down at all.

Q. So that, as to all of the Associated oil wells, the logs of which you examined, or, at least, the purported copies of the logs which you examined, which went over three thousand feet, showed considerable production of oil, did they not, on the log itself?

A. They didn't show a considerable production. They showed that they produced oil.

Q. Well, didn't they, on the logs themselves, as they have been read into this record, now, show a

considerable production of oil wherever the well went over three thousand feet?

A. They didn't show how much oil the wells produced. The wells might have produced only a hundred barrels of oil, and that in one day, and that ended it; and that would not show considerable production of oil.

Q. And wherever the well went from fifteen hundred feet on, that is, was drilled to a depth of at least fifteen hundred feet and beyond, it showed gas or oil at some stage from fifteen hundred feet on?

A. Some of them showed gas.

Q. And all of them showed oil from that time on, did they not, beyond fifteen hundred feet?

A. Just a minute—

Mr. Lewers: I submit the logs will speak for themselves.

A. No. The well on, I believe, the southwest quarter of Section 22 didn't show any oil.

Q. By Mr. Mills: Didn't show any oil on the log?

A. I believe not. It went to 2980. I don't recall its **[1840]** showing oil now

Q. Let me have 22, now.

A. It showed some gas, I believe, but that was all. I don't think there was any oil in that well.

Mr. Lewers: It showed some water. (Hands log to Mr. Mills.)

Mr. Mills: I object to that interjection by counsel.

Q. That well showed gas, however, did it not?

A. I think it did.

Q. And all the other wells that were drilled less than three thousand feet and more than fifteen hundred feet showed either gas or oil, did they not?

A. There is only two, or three.

Q. Well, they showed gas or oil?

A. Yes sir.

Q. And, after they passed three thousand feet, showed an enormous production of oil in some instances, did they not?

A. Well, your term "enormous"—is all right, yes; say they did show an enormous production of oil.

Q. So far as they were permitted to flow or until they sanded up, they showed an enormous production of oil?

A. I don't know what stopped them.

Q. Neither do I. I am asking you.

Q. I say I don't know. Didn't I?

A. Yes; I believe so. In fact, I am almost positive of it.

A. Positive; yes.

Q. Now, going over—in a very brief interval—over to the Scottish Oil Fields Limited, you say that you got your information from the log whch was introduced in this case as to that well.

A. And from information furnished me by Mr. Lang, who also introduced the same depth in this case.

Q. Now, going over to the Redlands Oil Company,

on Section 30 of 30-23, you show a well there on the northeast quarter. Where **[1841]** is the log of that well?

A. I believe that a copy of that log was given to Mr. Anderson. I think so.

Mr. Mills: Have you the log of that well, Mr. Anderson?

Mr. Anderson: Yes.

Mr. Mills: May I have it, please? (Produced.)

Q. Before I ask this question, and lest I forget it, let me ask you: On all of these logs that you have, they are all printed on the same form, apparently. Where did you get that form for the copies of these logs? What form is that?

A. These forms that we have just been going over are the Associated Oil Company's forms.

Q. And these blanks were furnished by the Associated Oil Company, were they?

A. Why, I suppose they were. The logs came to me as you see them.

Q. Well, now, here is the same kind of form.

A. Yes.

Q. Where did you get that form?

A. Thay log was furnished me—I think, I am sure, that log came from the Kern Trading and Oil Company.

Q. This is the regular form, is it not, of the Kern Trading and Oil Company?

A. Well, I don't know as it is.

Q. Well, it is the regular form?

A. It is in common use all over the field. The Associated use it, the K. T. & O. use it, and I have seen it with other firms also.

Q. It is the form used by the Southern Pacific Company in respect of the operations of its oil subsidiaries, is it not?

A. Well, I can't say as to that.

Q. That is, it is used by the Associated Oil Company and used **[1842]** by the Kern Trading and Oil Company?

A. I have seen them both use that form, yes. I think it is their general form. Whether they have others or not I couldn't say.

Q. This well known as well No. 1—

A. I don't know whether it ever had a number or not.

Q. It has a number up here, "No. 1"? On the northeast quarter of 30, in 30-23, had an oil showing at a depth of 2720 feet to 2750 feet, in 30 feet of brown sandy shale; and also a showing of oil in brown shale from 2750 feet to 2780 feet, or an interval of shale of a thickness of 60 feet with a showing of oil at that depth. Did it not?

A. I have heard that disputed on the stand.

Q. I am asking you whether the log which you consulted didn't show that, or not.

A. I don't recall whether it did or not. I believe it did, though. If it did, I have consulted it.

Q. Yes. Well, then, why is it that you designate that as a dry hole?

A. Because the best information I was able to obtain from men who were there while the hole was drilling was that the hole was a dry hole.

Q. Now, isn't it a fact that the log itself shows that there was a showing of oil for a distance of sixty feet, from 2720 to 2780?

A. The log may show that.

Q. Then you should not have represented this well as a dry hole entirely, should you?

A. Well, yes, after what other information I was able to obtain from Mr. Lang and the testimony of Mr. Griffin and others in this same case.

Q. Why didn't you use the symbol which you used to designate **[1843]** wells showing oil and not producing?

A. Because I consider the well a dry hole. There was no evidence of oil anywhere around the well.

Q. Well, wouldn't it fit with your description, with that symbol, that it was a well showing oil and not producing?

A. I could not see any showing of oil there.

Q. Don't you see a showing of oil now on this log?

A. Yes, but I had other information I considered better.

Q. Oh, you think information of hearsay evidence, of gossipers around the West Side Field, as better than the log itself?

A. I don't consider the information obtained from witnesses on this stand as gossip.

Q. There is no man who drilled a well on Section 30 of 30-23 who has appeared on this stand to testify, is there?

A. The man who was there at the time it was drilling.

Q. That would seem to indicate that the man who did testify here that there was no showing of oil was either mistaken or testified deliberately to an untruth, when the log itself shows there was a showing of oil?

A. Not at all.

Mr. Lewers—You will recollect that Mr. Lang testified that they thought they had a showing but concluded it was not, it was something else.

A. Those are the facts.

Q. By Mr. Mills—Didn't Mr. Lang, who testified as one of the witnesses on that well, say there was a showing of oil?

A. No sir; I believe not. I believe he said he thought there was a showing of oil. That is what he told me, at least, and that is where I obtained my information from.

Q. As a matter of fact, you followed the log where it would indicate information favorable to the contention of the [1844] railroad company and where it did not you would follow testimony which might be favorable to the railroad company?

A. I tried to arrive at the facts as nearly as I was able to, without reference to where it might be or in whose favor it might be.

Q. Well, wouldn't you ordinarily look for your facts to the log of the well itself rather than to some person who might have been around the derrick and who was not drilling the well?

A. If I saw the log of a well that purported to show oil and saw the well itself with absolutely no showing of oil near it or no indication of oil around it and was in conversation with a man who was there during the time that this purported showing of oil came and he told me that in his estimation it was not oil, I would be tempted to take his judgment in the matter in preference to something that might be written by some one who was not as well informed—that is to say, the man who was present at the time.

Q. In preference to what?

A. To the log, which may or may not have been correct at that time.

Q. Then, in your opinion, the logs of some of these wells are not correct that you have examined?

A. Possibly they are. They are as to depth, probably, which was all I have aimed to show on this map.

Q. Well, you aim to show on this map not only the depth of the well, don't you —

A. Yes.

Q. —but whether the well has a showing of oil or not.

A. Exactly.

Q. Now, here we find that you have examined the log of a well on Section 30 or 30-23, which on its face

shows that [1845] there were 60 feet of sandy shale, or brown shale, with a showing of oil at a depth of 2720 feet to 2780 feet.

A. Yes.

Q. And yet you don't give any credit to that well for a showing of oil on your map?

A. No.

Q. You call it a dry hole, and by that you mean there was no showing of oil, don't you?

A. No oil in the hole. The well never produced any oil at all.

Q. Now, as a matter of fact, if there was a showing of oil, according to this log and the log is true, then you should have designated this well as a well showing oil and not producing, according to the symbol in your legend, should you not?

A. If the well really did show oil, certainly it should have been shown to show oil.

Q. So that if the log is correct, then you have wrongly designated this well by your symbol?

A. If the log is correct. I don't consider the evidence produced by Mr. Lang, though, as incorrect, and Mr. Lang stated there was no oil in the well.

Q. Well, now, are you positive that he said there was no showing of oil at all in that well?

A. They thought they had a showing of oil and it afterwards proved not to be a showing of oil.

Q. You say he so testified in this case?

A. I understand he did. That was my understanding of his testimony as I heard it.

Mr. Mills—Have you any objection to my offering this log in evidence?

Mr. Lewers—I am going to offer every one of them. You have referred to them; they must go in evidence now. **[1846]**

Mr. Mills—I make the offer now of the purported copy of Redlands oil log on well No. 1 of Section 30 of 30-23, subject to any objection which counsel may want to make.

Mr. Lewers—No objection.

The Log last referred to and offered in evidence is marked "Complainant's Exhibit 4-W—LL."

Q. By Mr. Mills—I understand you now to say that all of these logs of these wells which you got yourself you turned over to Mr. Anderson?

A. Well, all of them I have not got myself.

Q. Well, all that you examined which you got yourself through Mr. Jeffries or from any other person.

A. Yes, I turned over to Mr. Anderson. He has all that I have ever gotten.

Whereupon the further taking of testimony herein was adjourned until 2 o'clock P. M., at the same place.

On Tuesday, February 18, 1913, at 2 o'clock P. M., the further taking of testimony herein was resumed pursuant to the adjournment: Willis N. Mills, Special Assistant Attorney-General, appearing on be-

half of the plaintiff; and Charles R. Lewers, Esq., appearing on behalf of the defendants.

W. J. LUKE, JR., recalled, testified further as follows:

By Mr. Mills:

Q. In your preparation of this map, Mr. Luke, I take it you were looking for the best available evidence of the depths and production of the wells which you have represented on the map? **[1847]**

A. Yes sir.

Q. Did you take occasion to examine the records in the Visalia Land office, where Mr. L. J. King, superintendent of the Associated Oil Company, and Mr. W. A. Williams, geologist for that company, and other employees and officials of that company and their associates, testified under oath as to the production of the Associated wells in the Elk Hills, particularly as to Sections 24 and 26 in 30-23 and in Section 30 of 30-24?

A. You mean did I take occasion to examine that record?

Q. Yes.

A. Well, I went to the Visalia office and asked the receiver if I might see the record, and was told that not being a party to the case I could not see the record; so I didn't see it.

Q. Who did you see there?

A. I think it was Mr. Store. I didn't see the record.

Q. Well, you knew, did you not, that the Asso-

ciated Oil Company had copies of that record on those three contests?

A. Well, I didn't know that they had, but I supposed that they would have had.

Q. Well, did you take occasion then, when you could not get the record at Visalia, to go to the Associated Oil Company's offices, or their officials, and ask for the record wherein the parties I have mentioned swore to the production of these wells, under oath?

A. No; I did not.

Q. Why didn't you do that, if you were looking for the best evidence?

A. Well, I had no reason for not doing it. I just didn't do it; that was all. Something else came up and I didn't go after it.

Q. Was it, possibly, for the reason that you were directed **[1848]** not to examine that record for the purpose of getting data for this map?

A. No sir; I was not, absolutely; by no one.

Q. You knew that they had testified in those cases which I have referred to before the local land officers at Visalia in respect of mineral contests made against certain gypsum and fuller's earth locators?

A. I had heard that there had been testimony taken, and that Sullivan had testified and that Mr. King had testified.

Q. Yes; and that Mr. King and Mr. T. E. Barnes, and Mr. Williams, geologist of the company, and a man by the name of McKay as a driller for the Asso-

ciated Oil Company, had offered evidence under oath to show that Sections 24 and 26 in 30-23 and Section 30 of 30-24, were essentially commercially productive oil lands, did you not?

A. I had never heard that Mr. Williams or Mr. Barnes that you speak of—who I don't know at all—or Mr. McKay, had testified. The only man I heard had testified was Mr. King. But of my own knowledge I knew nothing of the matter at all. I had heard very little about the case.

Q. Now, you have the map there. Will you refer to the representation of a well on Section 28, of 30-23, which you call the Hill Crest Oil Company?

A. Yes sir. That is the name I have got for it.

Q. You have placed the depth of that well at 1661 feet.

A. Yes sir.

Q. Where did you get your information of the depth of that well?

A. There was the original log of the well in the cabin there at the house, or at the property; and Mr. Lang, who had charge of the watchman who was looking after the property, said I might go there and look at that log, if I wished, and **[1849]** that I did.

Q. Did you ever have a copy of that log?

A. I made a copy of it at that time with a pencil.

Q. Where is that copy?

A. I think that that copy was also given—I had it typewritten, and I think that was also given to Mr. Anderson.

Q. Did you have it typewritten on a blank form furnished you by the Southern Pacific Railroad Company?

A. Well, I got the form, I think, from Mr. Taff, of the geological department.

Q. Of the Southern Pacific Company?

A. Yes; and I did the work myself. I think that log was turned over to Mr. Anderson.

Q. Now, was that on the same kind of form as the forms used for the copies of the alleged logs of wells produced this morning by Mr. Anderson?

A. Well, I couldn't say. I have never compared them, and I don't know. I never paid any attention to it.

Mr. Mills—Have you the copy of that log, Mr. Anderson?

Mr. Anderson—I think so.

Mr. Mills—Will you produce that, please?

(Produced)

Q. This form is essentially the same form as the copies of logs produced this morning, isn't it?

A. I believe there is additional data on the back of the Associated forms that is not on those K. T. & O. forms.

Q. Did you observe on this log that for an interval of 40 feet from 720 to 760 feet in depth, the statement that there was blue, gray gas sand?

A. I believe so.

Q. And that for a dsitance of 28 feet between 1172 and 1200-foot depths, there was a hard gray blue with gas? **[1850]**

A. I believe so; yes.

Q. And also that there was a statement in this log, between 1210 feet and 1222 feet in depth, for 12 feet there was gray or light blue with gas?

A. Yes sir.

Q. By Mr. Lewers—Light blue what?

A. That is all its says. They mean shales.

Q. By Mr. Mills—That there was another interval of 20 feet thickness, from 1288 to 1308-foot depth, a statement of hard gray with gas, 12½ inch casing landed on shell?

A. Yes.

Q. Also, that for 40 feet after that there is a statement—I should say for 60 feet—a statement of a showing of gas?

A. Yes sir.

Q. That at 1453-foot depth to 1464, 11 feet, there was another showing of gas?

A. Yes sir.

Q. And that between 1635-foot depth and 1642-foot, there was a statement of good showing of gas?

A. Yes sir.

Q. Is that right?

A. Yes. I aimed to make the log an exact copy—make that an exact copy of what I found in the record in the house.

Q. Now, that well was only drilled to a depth, at the time you examined it, of 1661 feet, as shown on your map?

A. That is what the log showed; yes sir.

Q. And commenced drilling on October 24, 1910, and finished on April 2, 1911?

A. That was the record in the log.

Q. Where did you get your information about the well on Section 32 of 30-23, known as the Midway Pacific Oil Company, on the southwest quarter? **[1851]**

A. My information on that well was furnished partly by a man by the name of Welch, who did watching there.

Q. What is his full name?

A. P. W., I believe. He was watching there the first trip I ever made into that country, along in February. I talked with him about the well and asked him what they had done there, and what the depth was; and later on I obtained a copy of the log of the well from the K. T. & O.

Q. By the "K. T. & O", you mean the Kern Trading and Oil Company, defendant in this case, do you?

A. Yes. They gave me a copy of the log that was made from data furnished them by Mr. Carlton, I believe, who had something to do with the company —either president or vice-president; I would not say which.

Q. Furnished to the Kern Trading and Oil Company?

A. Yes; by him.

Q. What was Mr. Welch's business there?

A. He was a watchman, only.

Q. Not a driller?

A. I don't think so, although I would not say.

Q. Where is the copy of that log?

A. Mr. Anderson has that also.

Mr. Mills—May I have that, Mr. Anderson? That is the Midway Pacific Oil Company's well on Section 32 of 30-23, (Produced)

Q. I hold in my hands a copy of the log which Mr. Anderson has handed me, of the alleged original log of this well, the Midway Pacific Oil Company, on the southwest quarter of Section 32 of 30-23. I notice for a depth of 80 feet there is brown shale between 1510-foot level and 1590-foot level, marked "Trace of oil and gas at 1535." Did you observe that, when you—**[1852]**

A. Yes sir.

Q. Why didn't you place that well under the appropriate symbol on your map, namely, "Wells showing oil (not producing)"?

A. Because the well never showed any oil that I ever heard of. I heard that given later by Mr. Lang, also, that such is not the fact.

Q. Here is the alleged copy of the alleged log, which says that there was a trace of oil and gas at 1535 feet.

A. The well never produced a bucketful of oil and at the present time is not producing any oil, and is abandoned, as far as I know; therefore I considered that the well was a dry hole.

Q. Well, but doesn't it come under your symbol, appropriately, "Wells showing oil (not producing)"?

A. I hardly think so, in that sense of the well, because I meant a well that showed some considerable quantity of oil, that meant something. That was probably no oil at all.

Q. You know, don't you, that the words "showing of oil" or 'showing oil" have a common and accepted usage, of definite meaning, in the oil business?

A. Yes.

Q. Namely, meaning a small amount or trace of oil?

A. Not necessarily.

Q. You would not use that expression with reference to a gushing well, would you?

A. No.

Q. But it means, and is accepted by common usage, among oil men in the West Side field, as meaning a trace of oil?

A. As a term indicating a definite show of oil, a definite trace of oil.

Q. Yes. And therefore this log here which you examined, if you believed it to be true, would have been sufficient to [1853] appropriately place that well, at least, under your symbol, "Well showing oil (not producing)"?

A. Well, I hardly think so, because the well never carried a real showing of oil; just carried a showing of a trace, and that was disputed by the men who were asked to examine the well at the time that they claimed that they had that.

Q. Well, who put the word "abandoned" on this log?

A. I have not any idea. Let me see it. (Shown to witness.) I suppose—I don't know. No; I don't know who put that on there. It is not my writing; it is not my machine that did that work. That is the copy as I got it. So, I don't know who made it.

Q. And that was not on the log you got, either, was it?

A. That is the paper I got, as I recollect it.

Q. This very paper here?

A. I think so.

Q. Did you get this data from Mr. Carlton?

A. No.

Q. Who did you get it from?

A. I got it from the Kern Trading and Oil Company.

Q. Well, who did you get it from from the Kern Trading and Oil Company?

A. I don't recollect whether I got it from Mr. Taff or not. I would not say for sure whether Mr. Taff gave it to me or whether I got it in the Sunset office. I would not be sure. One of those parties gave it to me. It might have come from the Sunset office. I would not swear to it.

Q. Now, referring to Section 2 of 31-23, you have actually shown there 1829 feet in the southeast quarter?

A. Yes sir.

Q. Known as "Combination Midway"?

A. Yes sir. **[1854]**

Q. Where is the log of that well?

A. I have not got the copy of that well—or the log.

Q. Where did you get your information about that?

A. Mr. M. S. Robertson, who is the secretary of the company, told me the well was that deep, and showed me a copy of it.

Q. Just a moment. You don't want to volunteer information here, do you, that you are not asked about? I asked you where you got your information.

A. And I told you.

Q. And in addition to that you told me what the man told you; which is objectionable.

A. Very well; cut that out.

Mr. Lewers—No; I submit it is responsive, and I ask it to stand.

Q. By Mr. Mills—Now, we can get along all right if you just answer my questions. You say you got this information from Mr. Robertson?

A. Yes sir.

Q. What is his full name?

A. M. S.

Q. Who is he?

A. He is the secretary of the company—or told me so.

Q. And therefore you got that on hearsay, didn't you?

A. He showed me a copy of the log.

Q. He showed you a copy of the log?

A. Yes sir; he showed me a copy with his figures on it.

Q. And you had no original at all—just a copy of the log?

A. No; I don't believe it was an original; I believe it was only a copy.

Q. On Section 1, of 31-23, you have a well represented as 795 feet deep, over the caption "Carmen Oil Company." **[1855]** Have you got the log of that well?

A. I turned that log over to Mr. Anderson.

Mr. Mills—Will you let me have that log, please, Mr. Anderson?

Q. While Mr. Anderson is looking for that, I want to refer again to the "Combination Midway" well. That log which you examined showed trace of oil and gas in several places, did it not?

A. No sir.

Q. From the 1700-foot level on?

A. No sir.

Q. Did it not?

A. Not that I recollect of.

Q. From 1710 feet on, did it not show oil and gas?

A. Not to my knowledge.

(Mr. Anderson produces log requested.)

Q. Are you now prepared to state definitely under oath that it did not show a trace of oil and gas beyond 1700 feet?

A. To the best of my recollection, it did not.

Q. You are not positive about that, are you?

A. Just as positive as I could be in the matter without having the log in front of me to refresh my memory on. It is several months ago that I saw it. But I made a note to that effect in my note-book when I looked at the log.

Q. Now, recurring to the well known as the Carmen Oil Company's well, on Section 1 of 31-23, did you observe, from the alleged copy of that log, that at 625 feet to 630 feet, the statement, "Gas and sand blow-out"?

A. I believe that statement is there.

Q. That from 645 feet to 650 feet, "Gas and sand 5 feet"?

A. I believe that is there.

Q. That from 652 feet to 670 feet, an interval of 18 feet **[1856]** of gas and sand?

A. Yes sir.

Q. That from 670 feet to 745, blue shale, goos gas for an interval of 75 feet?

A. If that is there, I observed it.

Q. Well, look and see whether it is there. I am not misquoting it in any way.

Mr. Lewers—I submit the log is the best evidence, and I ask that the log be put in evidence, and insist upon it if it is used as the basis of questions.

Q. By Mr. Mills—So that, from 625 feet to 795 feet, where the drilling stopped, or a distance of 170 feet, thereabouts, there was blue shale, sand or gravel, with strong evidence of good gas?

A. That is what the log states.

Q. That was a pretty good showing, was it not, for a well which was only 795 feet deep, in your opinion?

A. It would depend entirely upon the condition of the gas, what the gas was, and all about it. To me, I would want to know more about it than just that.

Q. Now, on Section 11, of 31-23, you show what is known as the Midway National well. Have you the log of that well?

A. I have not. I have never been able to get the data on that well.

Q. I notice you don't put down any depth for that well.

A. I don't know the depth of the well.

Q. Do you know that it is 1200 feet deep?

A. No; I don't. I don't know the depth of it.

Mr. Lewers—Do you know it is 1200 feet? We might correct the map right here.

Mr. Mills—I have a notation it is 1200 feet, reported as 1200 feet. **[1857]**

Mr. Lewers—Where did you get that information, Mr. Martin? We might as well have it on the map and have the map as complete as possible.

Mr. Mills—I don't know that Mr. Martin gave me the information.

Mr. Lewers—I judged by Mr. Martin's peculiar smile, that he did.

Mr. Mills—I will state that it has been reported as 1200 feet deep. I don't know whether it is or not.

The Witness—I really don't know. I never could find the people who drilled the well, and I could not find out anything about it.

Q. By Mr. Mills—In Section 7, of 31-24, there is a well represented on your map, of the Elk Hills Oil Company, 3435 feet deep. Have you the log of that well?

A. Yes.

Q. Where is it, Mr. Luke?

A. I gave that log to Mr. Anderson.

Mr. Mills—Will you give me that log?

The Witness—I had two logs of that, if I remember right.

Q. Well, you had better give me one of them.

A. I rather think that that is on this map here is of the shorter well.

Q. You mean there were two wells there?

A. No, but two logs I got. One was 3435 and the other 3900 and something. And I believe—I am not sure—

(Log produced by Mr. Anderson.)

The Witness—I took my data from the log that was not completed; and later I got that and turned it over without correcting this map.

Q. Referring to this alleged log which Mr. Anderson hands me? **[1858]**

A. Yes.

Q. By Mr. Lewers—Does that show a greater depth?

A. Yes; shows a depth of 500 feet greater.

Q. By Mr. Mills—Is this substantially the same as the log which you examined, with the exception of the addition of depth?

A. It is. It is the same log with the addition of the other 500 feet. My log was incomplete.

Q. Then you observed, did you not, in the preparation of this map, that for a distance of 32 feet, between depths 2558 and 2590 feet, there was black shale, showing of oil and gas?

A. Yes; that is there, I believe.

Q. And also, for a distance of 14 feet, between 3020 and 3034 feet, there was sand, showing oil, gas and salt water? Is that correct?

A. Yes sir.

Q. Did you also observe, on this last log which you examined and which I hold in my hands, the statement, "Casing S. P. landed at 592 feet, 12½ inch landed at 1244 feet, 8 inch casing landed at 3015 feet, 6¼ inch landed at 3250 feet with rotary, later carried to 3915 feet. Standard 4½ inch landed at 3914 feet, 665 feet of perforation, water broke in at 2700 feet, cemented at 3250 feet but not successful"? Did you observe that?

A. Yes; I remember that.

Q. Now, in view of the showing of that well, Mr. Luke, namely, that there was a showing of oil and gas for a distance of 500 feet, about, why didn't you put that under the appropriate symbol in your legend, that it was a well showing oil but not producing?

A. Because the showing was so slight that I didn't consider it as a showing of oil. There was no evidences at the **[1859]** derrick on the ground there to indicate that the well has ever produced any oil.

Q. Well, but that symbol does not require it to have produced oil. You particularly state in that symbol "not producing," don't you?

A. Yes.

Q. Now, which is it—did you want the court to understand by your symbol that a well which you designated as a well "showing oil (not producing)" was in fact a well which actually produced oil at some time?

A. A well showing oil not producing? I wanted to show exactly what it states.

Q. Read the question. (Last question read by the Special Examiner.)

A. No; I wanted it to show that it was a well that was not producing oil.

Q. At the time you visited it?

A. Up to the first of this year, when this map aims to bring the data down to.

Q. But, taking your symbol for what it stands for, without any explanation by you, the record, as shown by the log of this well in Section 7 of 31-24, actually brings that well within the symbol, "Wells showing oil (not producing)", doesn't it?

A. Well, there was a showing of oil in the well, probably, according to that log.

Q. And it was not producing?

A. Just a trace of oil.

Q. And it was not producing?

A. It never did produce.

Q. And therefore it comes within that symbol, fairly, doesn't it? **[1860]**

A. Well, in one sense of the word it may; but in my idea of that symbol, the idea being that the well didn't do anything in the way of a showing of oil other than just a mere trace which might have occurred from one point or another. It may not have been in the sands at all.

Q. Well, does not the log itself show that it was in the sands for several hundred feet, and does not the log also show that over 600 feet of casing was perforated?

A. Yes.

Q. What would that indicate to your mind? That they were in oil-sand?

A. They were trying to find oil when they perforated.

Q. And that they had actually found oil?

A. They didn't get any, according to that.

Q. And doesn't it also show that the water broke in at 2700 feet and that they attempted to cement up and were not successful because of that failure to cement?

A. The log shows that.

Q. And fairly indicates that the well would have been a successful, producing well if they hadn't had that trouble?

A. I don't think so.

Q. And yet you are willing to put that down under your symbol as a dry hole?

A. Yes.

Q. With no showing of oil at all?

A. Yes sir.

Q. When, in fact, the log shows it showed oil for 500 feet.

Mr. Lewers—I submit the log speaks for itself. It does not show that.

A. Let the log speak. The log is in evidence. Let it go for what it says.

Mr. Lewers—No, the log is not in evidence yet; but it **[1861]** will be.

Q. My Mr. Mills—You admit, at least, that the map does not correctly describe that well as to depth?

A. No; it does not. The well is deeper than that.

Q. Now, I refer to a well on the northeast quarter of Section 5, of the Associated Oil Company.

A. Yes sir.

Q. Where is the log of that well?

A. Mr. Anderson has a copy of the log.

Mr. Mills—May I have that, Mr. Anderson—Section 5, of 31-24?

Mr. Lewers—Please make a notation correcting the depth on that former well on the map, Mr. Luke.

The Witness—Yes. (Marks on map.)

Q. By Mr. Mills—Referring to the well shown on your map on Section 5, of 31-24, Associated Oil Company, depth of 2780 feet, is this alleged copy of a log

which Mr. Anderson hands me, the one which you examined?

A. Yes sir.

Q. Did you ever see any other log excepting that?

A. No; I never have.

Q. I notice here that at the level of 520 to 540 feet there is a statement of sand 20 feet in thickness, of which the last 15 feet had a showing of gas. Did you observe that?

A. I think so.

Q. Did you observe on any log which you examined of this well, if any, besides this log, that there was a statement to the effect that this was the largest discovery of gas ever made in the Elk Hills?

A. That is the only log of the well I have ever seen, and I never discussed the well with any one, so my knowledge of the well is confined to what data I got from that log. **[1862]**

Q. Where did you get this log?

A. That came from the Associated Oil Company, through Mr. Jeffries, I believe; that is, he handed it to me.

Mr. Mills—Will you produce the original of this log, Mr. Lewers, of Section 5 in 31-24?

Mr. Lewers—Well, I personally have no control over it.

Mr. Mills—I have reason to believe that the original log does not check with the log which has been handed me by Mr. Anderson.

Mr. Lewers—Mr. Jeffries, make a note of that and look it up.

Q. By Mr. Mills—You don't know of your own knowledge, Mr. Luke, that the log which has been handed me by Mr. Anderson, of Section 5, 31-24, is an exact copy of the original log of the Associated Oil Company for that well, do you?

A. No; I don't know it of my own knowledge. I didn't see the copy made.

Q. And do you know where the copy was made?

A. No; I don't. I presume in the offices.

Q. And you say the same of all these logs that we have been discussing where you produced copies and haven't seen the original log? You don't know whether it is an exact copy or not, do you?

A. No. I have no way of knowing.

Q. That is true of all the logs of which you have only seen copies and to which you have testified?

A. Yes sir; with the exception of the Hill Crest log.

Q. By Mr. Lewers—And also the Scottish? The original of that was here?

A. Yes.

Mr. Mills—I might state in the record that I shall introduce the copy of the log furnished by Mr. King, of the original **[1863]** log of this identical well, in which it will appear there is a discrepancy between the two copies.

Mr. Lewers—Well, I suggest you produce it now, so that we will have them side by each.

Q. By Mr. Mills—This well was drilled in part by standard tools and in part by a rotary, that is to say, the rotary was drilled from the 1300-foot level on?

A. I believe that is what the log shows.

Q. This well commenced drilling July 10, 1910; and do you know when it was finished?

A. No; I don't. I have a note that they suspended August 25, 1911, on that well.

Q. Now, referring to Section 8, of 31-24, the well you have represented as being on the northeast quarter, 1890 feet, Elk Hills Oil Company. Will you produce the log of that well?

A. Mr. Anderson has the copy of that log, also.

Mr. Mills—Will you get that, Mr. Anderson? That is on Section 8, 31-24, of the Elk Hills Oil Company.

Q. While we are waiting for that, Mr. Examiner, I would like to ask the witness this question: On the well which we have just discussed, on Section 5, the Associated Oil Company, you have placed it under the symbol, "Dryhole, not working or abandoned"?

A. Yes sir.

Q. Is that well abandoned?

A. Well, I can't say as to the fact of its being abandoned. The rig still stands, as much as I know, but there is nothing doing on the well. There was no work going on there, and has not been since 1911. Whether they intend to continue or not I can't say.

Q. Were you ever told that they had abandoned that well?

A. No. [1864]

Q. You simply mean that it comes within one or the other of the alternatives?

A. Yes sir.

Q. Either not working or abndoned?

A. Yes. It is not working, because it was not working when I saw it.

Q. How do you know that it is not working? Where did you get that?

A. I saw it. I was there.

Q. You went there?

A. Yes sir; I have been there.

Q. When was it not working?

A. In November.

Q. What year?

A. Last year; 1912.

(Log produced by Mr. Anderson.)

Q. Is this purported copy of a log which I hold in my hands, handed to me by Mr. Anderson, the one which you examined and from which you got your data?

A. Yes sir.

Q. On Section 8, of 31-24?

A. Yes sir.

Q. Is this all you know about that well—what you got from this sheet?

A. That is all, except that I have been at the property there, at the well.

Q. Where was this copy made? This appears to be one of the usual forms—329.

A. I think that came to me from the Associated Oil Company.

Q. By whom?

A. By Mr. Jeffries.

Q. This well shows that at 430 feet there is gas discover- [1865] ed. Do you recall that?

A. Yes; if it is there I have seen it.

Q. And at what depth had the well been sunk at the time you visited it when it was either abandoned, as you say, or not working?

A. Well, they were apparently doing nothing with the well when I saw it in November, and I suppose it was at its present depth, 1890 feet.

Q. Well, where did you get the depth 1890 feet? The log itself, or the alleged copy, seems to stop at 1740.

A. You will find a pencil notation under there 1890. I believe.

Q. Yes.

A. That was on the log when I got it.

Q. Whose writing was that?

A. I can't say. It came from the office of the Associated. Whether it was Williams' writing or not, I don't know.

Q. This log does not show the different thicknesses of shales and clay and sands, and so forth. Do you know what this notation here, "772 C, 68," means, on the side?

A. I do not. Possibly it has reference to some filing system.

Q. Do you know whether this is an exact copy of the original log of that well?

A. No sir.

Q. Now, on Section 18 of 31-24, have you the log of the well on the north half of that section, designated at 1860 feet?

A. No sir.

Q. Have you ever seen the log of that well?

A. No sir.

Q. Then, what you have here was entirely from hearsay, from something some one told you? **[1866]**

A. Yes sir. Mr. W. H. Cooley.

Q. Now, I didn't ask you who the man was. I asked you if it was entirely from hearsay.

A. It was.

Q. And you were not permitted to see the log, were you?

A. He didn't have it when I saw him.

Q. And you never saw the log?

A. I have never seen the log.

Q. Now, there is another well south of that, on the south half of that section, 540 feet. Have you a copy of that log?

A. No sir.

Q. Did you ever see the log?

A. No sir.

Q. And your information as to the depth and the condition of that well is from hearsay?

A. Yes sir.

Q. On Section 4 of the same township, Green &

Hutchinson well, 2355 feet deep. Have you the log of that well?

A. Yes; or, at least, I turned the copy of the log over to Mr. Anderson.

Mr. Mills—Mr. Anderson, will you give me that log, please? That is on Section 4, of 31-24. (Produced.)

Q. Is this copy, or alleged copy, of a log of well on Section 4, 31-24, which Mr. Anderson hands me, the basis of your information about that well?

A. As to its depth, yes sir, the conditions.

Q. This so-called log is incomplete, in that it does not show anything before 203 feet. Is that correct?

A. Yes.

Q. Did you observe that at 310 feet there was a strong pressure of gas shown on this well?

A. Yes. **[1867]**

Q. Where they installed 12½ inch casing?

A. Yes.

Q. And from that depth on until the well reached 705 feet there was still gas pressure through those sands?

A. I did.

Q. For a distance of approximately 400 feet?

A. Yes sir.

Q. This log shows that the well commenced drilling August 18, 1910. When was drilling discontinued?

A. I don't know. I have no note that shows when that drilling was discontinued.

Mr. Lewers—I think Mr. Green's testimony shows.

Q. By Mr. Mills—Do you know whether this copy which Mr. Anderson hands me is an exact copy, full and complete, of the original log of that well?

A. Yes sir.

Q. Where did you get it?

A. It came to me from the Associated.

Q. The Associated Oil Company?

A. Yes sir.

Q. In the same connection, Mr. Luke, you have noted a well of Potter, Reed & Taylor?

A. Yes.

Q. 1050 feet. Have you the log of that well?

A. Yes. That is, Mr. Anderson has the copy.

Mr. Mills—May I have that, Mr. Anderson? (Produced.)

Q. This appears to be a copy of, possibly, copy of the log?

A. Yes.

Q. Is that correct?

A. I think it is.

Q. Well, where is the copy, the first copy, of the log? **[1868]**

A That I couldn't say.

Q Did you ever see it?

A Mr Latham gave me that.

Q Gave you what?

A This paper you have in your hand; and whether he had the original copy or not I don't know.

Q That is, the copy of the original?

A The copy of the original; yes.

Q Yes. So that this is nothing but a copy of a copy of the original?

A Possibly that is what it is.

Q You don't know whether this is a correct, full, true perfect copy of the original log of that well, do you?

A No; I don't.

Q Did you examine this copy of a copy when you put the information on the map?

A Yes.

Q This shows that for 35 feet thickness, between 415 feet and 450-foot level, the drillers struck light sand with gas.

A Yes.

Q And stopped in what is known as tar sand at 1050 feet.

A Yes sir.

Q The well appears to have commenced, according to this copy, on September 26th. What year would that be?

A 1910, I think.

Q And when was the drilling discontinued?

A That I couldn't say.

Q Now, referring to Section 9, Mr. Luke, the southwest quarter, a wellrepresented as 810 feet, apparently the Elk Hills Oil Company.

A Yes. [1869]

Q Have you the log of that well?

A Mr Anderson has a copy of the log.

Mr. Mills—Give me that, Mr. Anderson, please. (Produced.)

Q You have examined this paper which Mr. Anderson hands me. What is it?

A It is a copy of the log.

Q Copy of the log of this well on Section 9, 31-24?

A Section 9, 31-24.

Q Where did you procure this?

A It came from the Associated Oil Company's office. Mr Williams gave it to Mr Jeffries.

Q Mr Williams, the geologist of the Associated Oil Company?

A Geologist of the Associated Oil Company; yes sir.

Q Have you compared it with the original log?

A No; I have not.

Q You don't know whether it is a true copy of the original log or not?

A No sir.

Q Do you know when drilling commenced on this? Oh, I see; started September 20, 1910, and discontinued October 22, 1910?

A Yes sir.

Q And reached a depth only of 810 feet?

A Yes sir.

Q Is that right?

A I believe so; yes sir.

Q Have you a copy of the log which you have shown on Section 3 of the same township, Elk Hills Midway, 1415 feet deep?

A Yes.

Q Has Mr. Anderson got that?

A Yes sir. [1870]

Mr Mills—Will you please produce that, Mr. Anderson? (Produced)

Q Where did you procure this alleged copy of the log of that well?

A I made that copy from the book of the original log in the possession of Messrs Barlow & Hill, in Bakersfield.

Q Which member of that firm gave it to you?

A They were both present when I got it. I think Mr Hill handed it to me, and Mr Barlow took it out of his desk.

Q This copy shows that the well reached gas at 351 feet.

A Yes sir.

Q And was drilled only to a depth of 1415 feet?

A Yes sir.

Q Now, Mr. Luke, have you a copy of the log of the Esperanza Oil Company, on Section 10, of 31 - 24, which you have stated was 3072 feet in depth?

A I don't know whether I gave that original copy to Mr Anderson or not. I had a blueprint of that well.

Mr Mills—Have you got the copy of that log, Mr Anderson?

Mr Anderson—What number?

Mr Mills—The number is not given here. There were four wells, apparently.

The Witness—It is the only well they drilled there.

Mr Mills—3072 feet. (Log produced by Mr Anderson)

The Witness—That is only a partial log.

Q By Mr Mills—This copy which is shown me goes only to a depth of 503 feet.

A Yes. I saw the original blueprint of that log in the General Petroleum Company; and from that I took my depth 3072 feet.

Q This is all the data you have here?

A That is all I have here. [**1871**]

Mr Lewers—I have a blueprint somewhere, Mr Mills, but I never can find it. I was thinking where I had put it and could find it.

Q By Mr Mills—Do you think you can get a copy of that log, Mr Luke?

A I think I can. I had it once; I think I can get it again.

Mr Lewers—Mr Jeffries informs me that the original was returned.

Mr Jeffries—You had the original and made a copy of it, and we returned the original.

The Witness—If I made a copy of it, it is at home. I know I had the original blueprint of the log.

Q By Mr Mills—If you have it you will send it in, won't you?

A Yes; sure.

Mr Mills—With the stipulation we can use it in connection with the testimony.

Mr Lewers—Yes.

Q By Mr Mills—Now, referring to the well on

Section 2 of 31 - 24, the East Midway Oil Company, 1315 feet in depth.

A Yes.

Q Is that the copy of the log of that well?

A This is the copy of the log of that well.

Q The copy of the log which you have handed me of East Midway Oil Company, otherwise known as the Barlow & Hill, for the well on Section 2, 31 - 24, gives a discovery of gas at 1106 feet. Is that right?

A I think it is.

Q Drilling commenced July, 1910, and was discontinued when?

A I don't know, unless I have got the data here. [1872]

Q The well went 1315 feet deep. Is that right?

A Yes.

Q Now, have you a copy of the log on Section 11, southeast quarter, Monsoon Petroleum Company?

A Yes. I handed a copy of that to Mr. Anderson. (Log produced.)

Q Who made this copy of the log?

A I can't tell you who made it. It came from the associated Oil Company to me. I believe there is a notation on the log that shows who made it, come to think of it. I believe it was made by Mr E. A. Flanders, for the Associated Oil Company.

Q For the Associated Oil Company?

A I think so. July 31, 1911.

Q This well was commenced what date? Do you know.

A No; I don't.

Q Do you know when it was discontinued?

A No.

Q Did Mr Flanders write this off in typewriting, or was this copy made from his copy?

A Of that I have no idea.

Q Who was it that took occasion to add to this log the misfortunes of this company in attachments by different people issued by justices of the peace, carpenters, and so forth?

A I don't know.

Q Was that put on for any purpose of influencing the court in this case, that you know of?

A I have no idea. It was there when I got the log.

Q You don't regard that information in the remarks as appropriately in the log, do you?

A No.

Q By Mr Lewers—You didn't put it on your map, did you?

A I did not. [1873]

Mr Mills—I think the Kinsey well log is in the record, isn't it, Mr Lewers?

Mr Lewers—Yes.

Q By Mr Mills—Now, all of those wells which I have called your attention to are represented by you on this map as within the boundaries of the Elk Hills?

A Yes.

Q And most of the wells which we have discussed here are on the fringe of the anticline and not near the summit of the dome of the Elk Hills?

A They are not near the summit of the Elk Hills; no sir.

Q And the only wells which have produced oil in large and spouting quantities are wells which were sunk on sections of land interspersed or contiguous to the lands in this suit, are they not?

A The only wells which have produced oil are those wells which are in the position that you have stated.

Q That is to say, interspersed with or contiguous actually to the lands in this suit?

A Yes sir.

Q Now, have you designated all of the wells which are in existence, or were in existence on January 1st, 1913, on this map in the Elk Hills?

A I think so.

Q You have not left out any?

A I think not. I aimed not to.

Q Now, does this map give every well in existence January 1st, 1913, on lands not in the Elk Hills which are represented on this map?

A I think so.

Q Every well?

A I think so. [1874]

Q Referring to the well on Section 28, of 30 - 22, known as the Newman & Morris well, have you the log of that well?

A No sir; I have not.

Q That well is producing oil at the rate of forty barrels a day, or was until it was flooded with water, was it not?

A I don't know as to that.

Q Yet you have designated that well as a dry hole.

A I understood that the well was a dry hole.

Q Not working, or abandoned.

A It was not working the last time I saw it. The boiler had been removed.

Q Don't you know that the Newman & Morris well was producing oil at the rate of forty barrels a day until it was flooded with water?

A No; I don't.

Q Well, are you positive that it was not?

A No; I would not swear that it was not.

Q Now, if it is true that the well was producing oil at that rate, do you think you would have placed it under the symbol which you did in the legend?

A No. I would have put it under the list of abandoned wells, or wells not producing, I should say, at this time; wells that had a showing of oil.

Q Did you know that that well began flowing oil at a depth between 1080 feet and 1150 feet, at the rate of 40 barrels a day?

A No; I did not.

Q And that it had a showing of oil up to 1190 feet?

A No.

Q On Section 12, of 31 - 22, American Oil Fields, have [1875] you a log of that well?

A No sir; I have not a log of any of those wells at all.

Q Do you know what depth that well is?

A No sir; none of them.

Q Is that well abandoned?

A There was nothing doing at the well when I was there.

Q You don't know whether it was abandoned or not producing?

A It is not producing and it is not working.

Q Not working?

A No; they are doing nothing there. You mean the well in the northeast quarter of the section?

Q. Yes.

A No; they were doing nothing at the well when I was there two weeks ago.

Q Now, on Section 6, of 31 - 23, the Union Oil Company—you have designated that well as 3205 feet deep?

A Yes.

Q Have you the log of that well?

A I am not so sure. I will see. I think I gave Mr. Anderson a copy of that log.

Mr Mills—Have you that log here, Mr Anderson?

The Witness—I am not sure whether I did or not.

Q By Mr Mills—You have no log for Section 6, 31 - 23?

A I am not sure whether I gave him a copy of that or not. I think I did. I saw a copy of the log. I think I gave it to him. (Log produced by Mr Anderson.) Yes; that is the copy.

Q Where was this alleged copy made?

A It came from the Associated Oil Company to me.

Q Do you know whether it is a perfect, true and correct copy of the original log?

A No; I don't. [1876]

Q Is this what you examined to get your data from?

A Yes; that, together with being near this derrick.

Q They had considerable trouble in that well, didn't they?

A Apparently they did, according to that log, yes; a great deal of it.

Q And their failure was due almost entirely to their mechanical troubles?

A That I couldn't say—what their failure was due to; but they had a great deal of mechanical trouble, though.

Q Now, they did find considerable showing of oil-sand?

A I don't know as to a considerable showing. It states two or three places there they struck oil-sand.

Q Well, they began striking oil-sand at 2918 feet, and at intervals they struck oil-sand from there on until they reached a depth of 3055 feet?

A Yes sir.

Mr Lewers—It says they struck streaks.

The Witness—Streaks of oil-sand. Whether there was any oil in them or not I don't know.

Q By Mr Mills—I observe that on this log there is no collation of data on the back of the copy here.

A Yes.

Q Do you know why that was not put on there?

A I do not.

Q You stated that you don't know whether that is a correct copy of the original log?

A No. I have never seen the original log, so I have no way of knowing.

Q Have you a copy of the log on Section 18, of 31 - 23?

A No; I have not.

Q What information you have there you got from hearsay as to that well? [1877]

A I took it from the copy of the log in the possession of the K. T. & O. at Sunset.

Q Is that well abandoned?

A Yes sir.

Q It is abandoned?

A Yes sir. As much as I can see, it is abandoned. The derrick is down.

Q Well, do you know, as a matter of fact, that it is abandoned?

A Well, I should say it is.

Q In other words, the Midland Oil Fields Limited have no further interest in that property?

A On Section 18?

Q Yes.

A I have been looking at the wrong section on this map. My testimony as to that well is wrong, and I would like to go back and correct it right now, because I have been looking at the well on Section 16 instead of 18, and talking about that.

Q All right.

A Section 18, 31 - 23. No; I have not a copy of that log.

Q Well, then you don't know anything about that well, except what you have heard?

A What I have heard, and the copy I saw in the possession of the Kern Trading and Oil Company.

Q Have you a copy of the log on Section 8, of 31 - 23, Mays Oil Company?

A Yes.

Q May I see, that, please?

A Mr Anderson has it. (Produced)

Q Do you know whether this well was in the syncline or not?

A Do you know whether it was in the syncline or not? [1878]

Q Yes.

A No.

Q Have you got the log of the well known as the Rex Midway, 3414 feet, on the same section?

A I think that Mr Anderson has the copy of that log also. I think he has. (Log produced)

Q This is a copy of a copy of a log, is it, that Mr Anderson has handed me?

A It is a copy of the log, I believe.

Q You have never checked it with the original to see?

A No; I never have.

Q This copy, which Mr Anderson hands me, of a copy of the log, shows that, for an interval of 45 feet. between 3045 and 3090-foot depth, brown shale carrying heavy gas. Did you observe that?

A Yes sir.

Q And from there on down until you reach a depth of 3,333 feet there was a showing of gas and oil—oil-rock, rather?

A Yes.

Q At 3285 feet, showing of oil. Did you observe that?

A Yes sir.

Q Did you observe also in this note, "This well drilled by rotary, and the log not as complete as should be, The sandy shale has oil showing for over 150 feet"?

A Yes; I read that.

Q Now, if there was a showing of oil for 159 feet in the log of that well when you prepared this map, why didn't you carry that well under the symbol of "Wells showing oil (not producing)", instead of "Dry hole"?

A Well, I thought that the showing of oil, looking at the derrick, that there was nothing there to warrant the statement [1879] that the well had any oil in it that was worth while mentioning; nothing more than a slight trace of oil, probably.

Q It was worth while mentioning it in the log, when they stated that for 159 feet they found oil showing?

A Yes. Those things always are in a log.

Q And that would properly come under the symbol of a "Well showing oil but not producing", would it not?

A It possibly might.

Q In that respect your map is misleading?

A If you wish to construe it that way, yes. The well never produced a gallon of oil; no evidence of the oil in the run from it.

Q Now, since I called your attention to the discussion as to the wells embraced within the limits of the Elk Hills, as you have defined it on this map, all the other wells that we have discussed were out in the flat, were they not?

A Yes; they are outside of the Hills. Some of them in the edges of the Buena Vista Hills and some of them in the flat.

Q And they have no particular geological bearing upon the lands in this suit, so far as you know?

A Probably not, only in a general way.

Q Yes. Now how did you delimit the Elk Hills by the line which you have drawn here?

A That map—In order to avoid confusion, that line was put out on there from the tracing of the exhibit made by Mr Martin.

Q Yes. And how did you get the sections, the section lines? From the same map?

A In the same way; yes.

Q From the same map?

A Yes; in order to avoid confusion in exhibits.

Mr Mills—Now, I desire to offer this objection to the [1881] offer made by counsel for the defendants of this map: For the reason that the so-called logs examined by the witness are now shown to be alleged copies of logs, not in any way compared or checked with the originals; that even the so-called copies so

examined were received by the witness from an agent of the railroad company defendant on hearsay from that person that they are alleged to be copies of originals; that the original logs are not produced or accounted for, although available to the defendants in this case; that it does not appear that the alleged copies are in anywise claimed to be true, full and correct copies of the originals; that the map differs, even in essential particulars, with the information contained in the so-called copies of alleged original logs, in that in several instances the alleged copies of logs appear to have wells showing oil and the offer fails to designate such wells under the appropriate symbol in the legend. Further, that the symbols in the legend are manifestly misleading, as the witness has testified that certain wells which he admits came in as gushers or spouters and produced oil in enormous quantities, he designates as "Wells showing oil (not producing)"; that the words "showing oil" or "showing of oil", have a common, definite usage and acceptation in the oil business, among oil men, as meaning merely a trace or slight occurrence of oil, and is not in any case used in referring to gushers, spouters, or wells of large production, or even wells of small production which have been placed on the pump. Furthermore, this map bears no date, although it mentions producing and drilling well.

Mr Lewers—We offer this map, primarily, as a check upon what appears in Exhibit O, offered on behalf of the government, and call attention to the fact that Exhibit O is subject, if the objections are valid,

to each and every objection, with one [1881] or two exceptions, now interposed to this exhibit, and that it is offered in this form as illustrative of the testimony heretofore given, and to be given, in this case and by reason of the fact that the production of each and every well driller, superintendent, accountant, keeper of records or others through whose hands any of the data embraced in any of these logs passed would unnecessarily consume the time of this court without accomplishing any useful object.

Mr Mills—I might say, in response to that last reason, that it is apparently tantamount to stating that you contend that your proof will show that you are entitled to retain these lands and because it will consume the time of the court you won't offer any proof.

Mr Lewers—Well, in answer to that, I merely say that the government has not shown that they are entitled to the lands, and the burden of proof is upon them.

Mr Mills—The record speaks illuminatingly upon that subject.

Mr Lewers—Tallow-dip.

The map last referred to and offered in evidence is marked "Defendants' Exhibit 16-LL"

By Mr Lewers:

Q Mr Luke, in the preparation of this map, did you make any use of the testimony that was introduced in this case in connection with it in any form?

A Yes sir.

Q Now, what, if you know, is the practice in the oil fields with reference to the interchange of well logs, and copies thereof, amongst oil men and oil companies?

A Well, my experience during the past year has been that that is the general practice amongst oil men in those fields; it is to interchange their ideas, give each other the logs and information regarding their wells.

Q And do you know whether or not such copies of logs are [1882] generally accepted and found to be, as a rule, accurate so far as the indications of depth and other general features are concerned?

A I believe they are.

Q Have you, in your experience and investigation in connection with these matters, learned, at any time, of any instance of a false log being given out intentionally by any oil company?

A No; I don't know of any such instance. I never have heard of any such instance.

Q When you use the designation upon your map, the legend upon your map, as indicating certain wells as having an oil-showing but not now producing, you were referring, were you, as to the latter portion of that legend, to the time when you had prepared that map?

A Yes sir.

Q And in determining whether a well would come within the designation of one which had a showing of oil, did you consider a showing which amounted

merely to some colors on the water as coming within your classification?

A No; I did not.

Q What was it that you required in order to make it a well that was showing oil?

A A substantial quantity of oil, something that could be unmistakably termed oil beyond any question by anybody, some considerable quantity—a barrel, or two or three, or more.

Q And in your investigation and in the testimony introduced in this case, have you learned of any instances where drillers or others reported showings of oil, or oil showings, that subsequent investigation revealed was not really oil from the ground at all?

A Yes; I have heard that stated here on the stand by [1883] witnesses.

Q Were your instructions to leave out of consideration as oil-wells anything that had actually produced a pint of real oil?

A No; they were not.

Q What were your instructions in that regard?

A My instructions were to get at all the facts that I possibly could in regard to this matter and to show the wells that had produced any oil as wells showing oil.

Q And was the map prepared, as far as you were able to prepare it, in accordance with those instructions?

A Yes sir.

Q Now, a number of questions have been asked you concerning the occurrence of gas as indicated in

various logs that have been referred to. Do you mean to testify, or are you able to testify, Mr Luke, as to the quantity of gas, or as to the character of that gas, or as to its importance or signification in connection with oil at any place?

A No. I could not.

Q Well, why can't you testify to that? Do you know anything about it?

A I am not sufficiently acquainted with the oil business as a profession, and have not had sufficient experience in the oil business, to go ahead and testify as to the facts regarding a small or a slight production of gas here or there, as to what significance it might have.

Q Now, have you any knowledge of enormous quantities of oil being produced from any of these wells?

A No; I have not.

Q And was the designation which you have used upon your map intended by you to conceal any production of oil?

A It was not. [1884]

Q Was it intended in any way as a measure of the quantity of the oil that was produced at any place?

A Not at all.

Q Were you not instructed, in that connection, that the quantity of oil would be shown by other testimony in this case?

A Yes.

Mr Mills—I object to that question as manifestly

leading and suggestive and putting the answer in the witness's mouth.

Mr Lewers—I will admit it was leading; but it was in order to shorten time.

Q Now, referring again to your map, Exhibit No. 16, and to Section 11, in Township 31-23, and to Section 13 of the same township, there are two wells there marked for the Hart Oil Company, are there not?

A Yes.

Q And did you have any logs that formed any basis, or part of the basis, for the statements contained in your map concerning those wells?

A Yes.

Q Where did you get those logs?

A Why, one of those logs, or both of them—I would not be sure which, but I think that both of the Hart well logs were furnished by Mr Latham.

Q Who is Mr Latham?

A Mr Latham is a geologist at the present time in Taft, or was then, in connection with the water commission of this state, and he gave me a copy of those logs. If I recall right, he is the man who handed me those logs.

Q Well, now, I notice on that one for Section 11, which is now lying before you, a notation at the end apparently in your own handwriting. Is it? [1885]

A Yes.

Q That was not on there, was it, at the time when that was handed to you?

A No; it was not.

Q Will you kindly remove that notation?

A Yes. (Done)

Q And the same explanation applies to the log for a well in Section 13, does it—handed to you by Mr Latham?

A Yes.

Q Have you ever seen the original of either one of these logs?

A No; I never have.

Q Now, on Section 14 of Township 31 - 23, your map indicates a well of the Barnodon Oil Company. Did you examine any log of that well?

A Yes.

Q And where did you obtain that log?

A That log was obtained from a blueprint of the log furnished me by the General Petroleum Company, and I made a copy of it from that. This is the copy that I made from the original blueprint furnished by them.

Q Well, did you yourself prepare that particular document that is lying before you, or was that copied from a manuscript you prepared?

A No; that was copied by myself from the original blueprint of the log that I obtained from the General Petroleum Company.

Q Did you do the actual typewriting?

A Yes.

Mr Lewers—I now offer in evidence, and read into the record, the following logs, subject to any objection that may be interposed by counsel for the government. [1886]

Mr Mills—Before you read anything into the record I want to make an objection. I want to see what log you offer so I can object to it, if I desire.

Mr Lewers—The log of well No. 1 of the Associated Oil Company, Section 22, Township 30 - 23; also, log of well No. 3, of the Associated Oil Company, situated in the southwest quarter of Section 22, Township 30 - 23; and the log of well No. 4 of the Associated Oil Company, situated in Section 22 of the same township, 30 - 23. Also the log of well No. 1 of the Associated Oil Company in Section 24, Township 30 - 23; the log of well No. 2, of the Associated Oil Company, in Section 24, same township; also the log of well No. 3, Associated Oil Company, in Section 24, of the same township. The log of well No 4 of the Associated Oil Company, in Section 24 of the same township. The log of well No. 1 of the Associated Oil Company in Section 26, Township 30 - 23. The log of well No. 2 of the Associated Oil Company in Section 26 of the same township.

The log of wells Nos. 3 and 4 of the Associated Oil Company in the same section and township.

Also the log of well No. 1 of the Hill Crest Oil Company in the southwest quarter of Section 28, 30 - 23.

The log of well No. 1, Midway Pacific Oil Company, in Section 32, Township 30 - 23.

Log of well No. 1 of the Associated Oil Company in Section 30, Township 30 - 24.

Mr Mills—Why don't you offer them all together?

Mr Lewers—Well, I will complete the offer by offering, in addition to what has been already offered,

all the logs that have been referred to in the examination of Mr Luke and produced during his examination. All of these are offered in connection with the testimony of the witness W. J. Luke, inas- [1887] much as all of them have been referred to and used as a basis of his testimony by counsel on both sides.

Mr Mills—The offer is objected to, because no logs of any wells have been produced at this session of this hearing in connection with the testimony of the witness Luke, but only typewritten forms of alleged copies of copies of originals, or of alleged copies of original logs, not in any way identified with the actual log of any one of the wells appearing upon the Defendants' Exhibit 16; that the witness has testified that he has neither checked nor compared these alleged copies with the original logs, and in only two or three instances at the outside has ever seen the original logs as to which he has testified.

The offer is further objectionable, for the reason that no opportunity is afforded counsel for the government to compare these random, fugitive manuscripts alleged to be copies of logs with the originals, nor to have opportunity of cross-examination upon the subject with the persons who prepared the original logs, nor even with persons who claim to have copied these logs; that in several instances the counsel for the government have reason to believe that the copies so offered, or alleged copies so offered, are, in material and vital respects, different from the matter contained in the original logs; that information in some instances has been suppressed by the recopying,

or alleged recopying, of these logs; that the originals are not accounted for in any way, and that the government has, under this offer, no opportunity whatever to make examinations or compare the testimony already in the case with the original logs; and counsel for the government therefore objects to the introduction of these offers at this time, with the reservation to make further objection at a later time, if he so desires, upon further examination of these papers so offered, be- [1888] cause they are manifestly incompetent and the foundation for the offer has not in anywise been laid.

Q By Mr Lewers—Mr Luke, are the logs that have just been offered—introduced—in evidence, with the exception of the two logs of the Hart Oil Company and the one log of the Barnodon Oil Company, the same documents that were produced by you at the request of counsel for the government during your cross-examination?

A Yes sir.

Q Are they the same documents that we used in asking questions from you concerning the showing of gas and other indications in different wells referred to on your map?

A Yes sir.

The various logs last referred to and offered in evidence, are marked "Defendants' Exhibit 17—L.L.".

Mr Lewers—That is all.

Mr Mills—I make the further objection that it would be extremely unfair to the plaintiff in this

case for the court to permit an introduction, in such an informal manner, of a mass of typewritten documents, not accounted for in any way; and counsel can only conclude that the purpose of offering these typewritten alleged copies of logs in this manner is to evade the usual method of laying the foundation for such offers because of a desire to prevent the plaintiff from getting at the true facts in the case.

Mr Lewers—In answer to that, I desire to disclaim any intention to endeavor to take advantage of the government in that manner. The purpose of offering them in this way is in explanation of the testimony of the witness and because each [1889] and every one of these documents was called for and used as the basis of an examination by counsel for the government, and for the further reason that I am satisfied that these are true and correct copies of the original and genuine logs; and in case it shall come to my attention that any of them are not, I shall very promptly notify counsel for the government. I don't want to be understood as attempting to impose upon counsel for the government anything that I don't have full faith in myself.

Mr Mills—In response to one statement of counsel, I will say that the examination of Mr Luke, in so far as these papers offered now is concerned, was solely for the purpose, as appears by the record, to ascertain the basis of his information; and, in so doing, the witness has utterly disqualified the validity of the offer made by defendants' counsel, and has shown that they are in nowise competent at this stage to be

introduced here, and I am surprised and astonished that counsel for the defense should attempt anything so outrageously beyond the limits of the ordinary rules of practice in the introduction of exhibits.

Mr Lewers—That is all.

Mr Mills—I desire to ask some further questions of Mr Luke.

CROSS-EXAMINATION
OF
W. J. LUKE, JR.

By Mr Mills:

Q Mr Luke, you have stated in part of your examination today that the exhibit known as "Defendants' Exhibit 16", which you say you prepared, was drawn to the scale of "Plaintiff's exhibit O".

A Yes. [1890]

Q Made by Mr Martin. Is that correct?

A Yes.

Q In so far as the out-boundaries of the section lines are concerned, and the limitation of the Elk Hills. Is that right?

A Yes sir.

Q Now, you drew this map which has been offered here in evidence as "Defendants' Exhibit 16", in such a way as to exclude from the consideration of the court a vast number of productive oil-wells in the Buena Vista Hills and in the Midway flats and in and about McKittrick, in Township 30 - 22, in order, did you not, to give the impression, so far as possible, to the court, that the territory about the Elk Hills

was unproductive, when, in fact, you knew that the Elk Hills lie contiguous to the most productive oil field known in the world today?

A No sir; I did not.

Q You say that you prepared this map also, in part, from data and from testimony which you heard in this case?

A Yes sir.

Q The testimony to which you referred, in answer to that question by Mr Lewers, was testimony of disgruntled oil operators who had either met with failure by locating their wells on the fringe of the anticline of the Elk Hills at spots which, had they taken geological advice, they might have known would never be productive, or by witnesses who were confessed to be in some wise officially connected with the Southern Pacific Company or Southern Pacific Railroad Company, the Kern Trading and Oil Company, the Associated Oil Company, or other subsidiaries of the main railroad company, defendants in this case.

Mr Lewers—To which I object, on the ground that the question is not proper cross-examination, and upon the further [1891] ground that it is not singular but involves at least ten separate propositions, no one of which can be answered specifically except by itself.

A As to the mental attitude of the alleged disgruntled operators, I know nothing about their mental attitude at all— whether they were disgruntled or not. I merely take their statements on the stand here as facts. And as to the men who have alleged

connections with the Associated Oil Company, or any other oil companies—whether of the Southern Pacific or not—I don't know of any of those men whose evidence I used. At this time I don't recall one of them, as to those men having connections with the Southern Pacific Company, if there are such.

Q The testimony to which you referred which formed, in part, the basis of the data on which you rest this exhibit was testimony produced by the defendants in this case, and not in any particular the testimony produced by plaintiff. Is not that true?

A I don't recall that the plaintiff's witnesses ever stated the depth of any well in the Elk Hills. If they did I don't recall it now.

Q You confined yourself to that portion of the testimony produced by the defendants which would be favorable to such an exhibit as you prepared?

A I prepared my exhibit to show the developments in the Elk Hills and I used such testimony as was brought out concerning the Elk Hills.

Q And you confined your map, in so far as it related to the testimony in this case, to that testimony which would be favorable to the contention of the defendants? Is not that true?

A I used all of the testimony that I could in the preparation of the map, whether favorable or unfavorable. [1892]

Q And you took no account whatever, in making this map—and you say you based it on such testimony, and based it in part upon the map made by Mr

Martin—of the productive and successful wells lying immediately to the south of the Elk Hills, did you?

A I didn't take those in there. They are not in the Elk Hills.

Q You heard the testimony of Mr McKay in this case and were present in the court-room when he testified, were you not?

A Yes sir.

Q He was a witness produced by the government in this case?

A Yes sir.

Q And he was an employe of the Associated Oil Company, and you heard the testimony that the well on Section 30, of 30 - 24, which you have denominated here under the symbol in the legend of "Wells showing oil (not producing)", produced, on the gauge, to his certain knowledge, 406 barrels a day?

A I heard him say that.

Q And yet you are willing to put that down on this map as a well merely "showing oil"?

A Yes sir. That is a fact.

Q You neglected to take in more than one-half of Exhibit O, offered by the plaintiff, when you made this Exhibit 16 of the defendant, so as to exclude the great wells in the Buena Vista Hills and the vicinity, the Midway, and in 30 - 22 immediately west of these lands, didn't you?

A I did exclude it.

Q Now, you did that for a purpose. What was that purpose?

A This suit, as I understand it, is connected with

the Elk Hills, and my map purports to show nothing more than the [1893] Elk Hills and the land that is immediately contiguous thereto.

Q You have heard counsel for the defendants, Mr Lewers, take witnesses as far as twenty miles away from this land, repeatedly, on other wells which he claimed were unproductive, haven't you, as you sat daily at the hearings in this court?

A Possibly I have.

Q Yes. And you heard him, and helped him yourself, as a scouting agent, to collect information about all the unproductive wells on the West Side field and gave that to Mr Lewers to introduce in this case, didn't you?

A No sir.

Q And the purpose which you had in excluding from this map the productive wells of that field was in order to take in as many wells which were unproductive as you could possibly do and at the same time show the least number of wells which were commercially productive?

A No sir.

Q And your exhibit shows that on its face, does it not, Mr Luke?

A No sir; it does not.

Q You were willing to delimit this map to within half a mile of the south fringe of the Elk Hills on one side, weren't you?

A Yes sir.

Q And a mile on the west side, when, if you had gone three or four miles in either direction, either

west or south, further, you would have shown to the court the greatest oil field in the history of the world, wouldn't you?

A There is a great oil field there.

Q Yes. Now, who suggested to you, Mr Luke, that you should limit this map to show no great production in the Buena Vista Hills? [1894]

A I don't know as any one did.

Q Didn't you discuss with Mr Lewers what this map should contain, before you prepared it?

A I told Mr Lewers that I thought we ought to have a map. Mr Lewers talked the matter over with me.

Q Yes; and it was thoroughly discussed what the limits of this exhibit should be, was it not, Mr Luke?

A Yes. It was to show the Elk Hills.

Q And, to be fair about it, the matter of showing as much unproductivity in the wells which you have represented on this map was thoroughly discussed, wasn't it?

A No; it was not.

Q And it was also discussed by you and Mr Lewers, in the preparation of this map, that you should so draw it as to exclude all the great wells in the Buena Vista Hills and vicinity, the Midway flats, and along the line of seepages of the Temblor Range and the production in 30 - 22 near McKittrick?

A No.

Mr Lewers—If you want to know, Mr Mills, I told him to prepare a map that was small enough that we could handle it.

Mr Mills—Never mind. You are not testifying now.

Q The only obstacle you met in the preparation of this map, in the purpose of showing, so far as possible, unproductive wells, was that you really had to put in the lands in this suit and show the wells on 24 and 26 of 30 - 23 and Section 30 of 30 - 24, in which you admit yourself that you understand they came in as gushers; otherwise your exhibit would be, would it not, an exhibit with an attempt to show wells which had not produced oil, so far as possible? Is not that true?

A What is true? The question is all involved. Please read it, so I can understand it.

Q Just read it back to him. [1895]

A That question asks two or three questions.

(The previous question was read by the Special Examiner.)

Q Now, the question is, Is not that true—all of it or any part of it?

A Well, it is not true.

Q Not true?

A No; not all of it.

Q Now, you prepared a legend, in what I consider, and compliment you for, as somewhat clever, in such wise as to apparently tell the truth, but only part of it, in other words a legend which would be calculated, although stating, possibly a fact, but not all of it, to mislead the court. Did you not?

A No sir.

Q When you put down, under the symbol, "Wells

showing oil (not producing)", wells which you admit you understand came in as gushers, you did that with the designed purpose of having the court understand that those wells which appeared under that symbol had only a trace of oil but were not now producing oil. Wasn't it done for that purpose?

A It was done for the purpose of showing that the wells were not producing oil.

Q And under that symbol you could put down a well which had produced 10,000,000 barrels of oil in the past but which is not now producing oil?

A I could.

Q In that respect, then, Mr Luke, that symbol is entirely misleading to the court, with no explanation whatever, is it not?

A The symbol shows the fact that is.

Q It shows the fact that it is not producing; but the words, "Wells showing oil", in that connection, although not now producing, if a certain well had produced in the past 10,000,000 barrels of oil, it would certainly be misleading, [**1896**] would it not?

A Possibly it would.

Q Yes. Yet you were willing to mislead the court in that respect and put on your map a symbol which would include wells which came in as gushers?

A There was no intent on my part to mislead any one in the matter. The map is intended to show the facts as they are, and not intended in any way to show any amount of production of any well.

Q Now, if you found a well which was on the pump, but which was not pumping, but which you

knew would produce five or six hundred barrels of oil a day, or even a hundred barrels of oil, but it was not producing, you would put it under the symbol in your legend, "Wells showing oil (not producing)", wouldn't you?

A It would depend entirely on what the well was stopped for. If it was for repairs, I would say no.

Q Suppose it was shut down, not for repairs.

A Then, if it was shut down, I would say the well was a well not producing.

Q And in that respect, to be perfectly fair, your map is misleading to the court?

A I don't think so.

Q You have heard of the Lake View gusher, haven't you?

A Yes.

Q That is a well which is commonly reported to have produced 10,000,000 barrels of oil in a year, or thereabouts. You have heard of that, haven't you?

A Yes.

Q And for a time that well was not producing?

A Yes.

Q Now, that well you would insert in your symbol here as [**1897**] a well "Showing oil (but not producing)", would you not?

A If at the time I saw the well it was not producing I could not do anything else.

Q So that you constructed a symbol which was designed in advance to mislead the court?

A No sir.

Q As to the actual facts in this case?

A Yes.

Mr Lewers—I submit that question has been asked and answered seven times now.

Q By Mr Mills—Now, Mr Luke, you have been asked as to your experience with reference to the interchange of well logs in the oil fields of Kern county, and I believe you stated from your experience it was common practice. Is that right?

A Yes.

Q Your experience, however, and the ease with which you were able to get logs of wells, was, for the most part, limited to the activities of such subsidiaries of the defendants in this case of the Kern Trading and Oil Company and the Associated Oil Company and their allied companies or companies in which the Southern Pacific Company owned some part or portion of the capital stock? That is where most of your work has been done, has it not?

A No.

Q In the collection of data?

A No.

Q Didn't you testify that all the logs you got in this case, with the exception of two or three, you got from the Associated Oil Company?

A Yes.

Q And the Associated Oil Company, to your knowledge, is generally known to be controlled and dominated by the Southern [1898] Pacific Company by ownership of over fifty per cent of its capital stock? Is not that so?

A I don't know anything about it.

Q Well, you know that by common reputation, don't you?

A I have heard such, but I don't know anything about it.

Q And you also know, by the ease with which you can go into the private files of the Associated Oil Company and get out documents that no one else can get, that they must have some financial connection, at least? Is not that so?

A I don't know what the connections between those two companies are.

Q You never had any difficulty in getting logs from the Associated Oil Company when you were sent by the Southern Pacific Company to get them, did you?

A No.

Q Nor of the Kern Trading and Oil Company, did you?

A No sir.

Q So that your experience, in that respect, was limited, to a large extent, to those three companies and their associates?

A When I found the Associated Oil Company and the Kern Trading and Oil Company in possession of the logs of pretty nearly all those wells in that field, I would say that it wouldn't be difficult for them to get them. How they got them I have no reason of knowing.

Q But you got over ninety per cent of the logs which you claim that you examined—copies of logs —from the Associated Oil Company?

A Personally I did: yes.

Q And when you say it is your experience that it is the common practice to interchange logs with anybody, you refer to the ease with which you obtained those logs?

A And to the fact that they had those logs, or I would [1899] not have been able to obtain them; and they didn't drill the wells, I understood.

Q You know that the Associated Oil Company and Southern Pacific Company have business relations with other companies in that field, don't you?

A No; not of my own knowledge.

Q Well, you have heard it, haven't you?

A I would imagine they would.

Q Yes. So that you don't want it to be understood here now that an oil operator, independent of any of those large companies, could go to the Associated Oil Company and ask them for a log and get it?

A I don't know what they could do.

Q So that your testimony on that point is limited to your own experience, in which you had no trouble in getting them from those companies? Is not that so?

A Yes; and from any one else I asked.

Q Who else did you ask? You say you got all these, except two or three, from the Associated Oil Company.

A Well, Barlow & Hill, Latham, Dave Kinsey, and Mr Robertson, Mr Dyer, —

Q Dyer is connected with the Southern Pacific Company, is he not?

A I don't know.

Q Yes. Ninety per cent of the logs that you got, you got from associates or subsidiaries of the Southern Pacific Company, defendant in this case?

A Yes.

Q Certainly. And all those companies which you have said you obtained logs from, apart from the Associated Oil Company, you got the logs from companies which sell their products and entire output to the Associated Oil Company? [1900]

A They haven't any of them sold anything to the Associated Company that I know of. They didn't get anything to sell.

Q None of those companies ever sold any oil to the Associated Oil Company? Is that what you mean to testify?

A Not from the wells that I took the logs from.

Q I am not asking you about the companies that you got the logs from. I am speaking about their business relations.

A I don't know anything about their business relations.

Q Now, you know what the lands in this suit are, don't you, Mr Luke?

A Yes sir.

Q Very well?

A Yes.

Q That is, you know the description?

A Yes.

Q And all of those lands are in the south half of the township known as 30 South, 23 East?

A Yes.

Q You know, also, that the question, the paramount question, raised by the defendants in this case, is whether or not those lands are oil lands?

A Yes sir.

Q Now, you were willing to include in your map an entire township east of the lands in this suit. Why didn't you go an entire township south and west?

A It was not of the Elk Hills.

Q Well, the Elk Hills,—the only part of the Elk Hills that is involved here is the south half of 23. There is nothing else involved here, and you know that well, don't you?

A Yes.

Q Now, why didn't you, in making that map, if you included a township to the east, go a township to the south? [1901]

A As I stated before.

Q And a township to the west.

A As I stated before, they are not in the Elk Hills and I considered the Elk Hills as similar in their extent, and I aimed to show them.

Q Well, you considered and have heard testimony in this case on the part of the defense that the Buena Vista Hills are an analogous uplift to the Elk Hills and lying immediately to the south of them, didn't you?

A I have heard that.

Q Why didn't you include those hills?

A Because they were outside of the Elk Hills.

Q Outside of the Elk Hills?

A Yes.

Q But they were analogous formation and structure, weren't they?

A Possibly so.

Q Well, you have heard the testimony in this case?

A Yes sir.

Q And that is the testimony both of the plaintiff and defendant, isn't it?

A I believe so.

Q Yet, you were unwilling to include those hills because they showed great wells?

A No.

Q And you include an entire township to the east of the lands in this suit which have never been, with the exception of the west end, drilled for oil?

A I believe not. That is, I believe they have not been drilled for oil.

Mr Mills—That is all for the present. I reserve the right to make further objections to those copies of logs. **[1902]**

The logs referred to and offered in evidence in connection with the examination of the witness W. J. Luke, and marked "Defendants' Exhibit 17". **[1903]**

FRANK M. ANDERSON, a witness called and sworn on behalf of the defendant, testified as follows:

DIRECT EXAMINATION.

A. My first work was in connection with the State

Mining Bureau. I furnished most of the material published in the bulletin devoted to the copper resources of California. I also contributed a chapter to Bulletin No. 19, devoted to the oil resources of California. This chapter covered the districts of Humbolt County. I made several private reports on oil territory in different parts of the state, or alleged oil territory in different parts of the state.

Q You have stated that you were connected with the Geological Department of the Southern Pacific Company. Were you employed in your professional capacity by any other railroad company prior to that time?

A Yes. I was in the Land Department of the Central Pacific Railroad Company for one year or more.

Q When was that?

A From about the 1st of April, 1902, to the following April.

Q And who was at the head of the Land Department of that company at that time?

A Mills.

Q W. H. Mills?

A. W. H. Mills.

Q When did you first go into any part of the Kern River or West Side oil fields?

A I visited the Kern River and West Side fields in March, 1903, for the first time.

Q I noticed in a copy which I have before me of your paper on the Neocene deposits of the Kern

River, California, and the Temblor Basin, a statement on page— [1904]

Mr Mills: What publication is it?

A It is the fourth paper that I wrote.

Q Published by what authority?

Mr Lewers: The California Academy of Sciences —a statement that the first visit of the writer to the Kern River District was made in the spring of 1902. Is that correct?

A I think that must be a typographical error. It should be 1903.

Q How did you happen to go down there at that time?

A My interest in the oil industry led me to ask for a leave of absence without pay from the Central Pacific Land Department, and I went down there on my own resources.

Q And while you were there were you acting in any way for the Central Pacific Railroad Company?

A I was not.

Q Or for the Southern Pacific Railroad Company?

A No; it was an independent excursion that I took into the oil district without pay from anybody.

Q Where was it you went first on that trip?

A To the Kern River field. I spent three or four days in the Kern River field and I visited all parts of the Kern River District and talked with a good many people there, and I came from there over to McKittrick early in March, 1903.

Q Were you acquainted with Professor Josiah Owen at that time?

A I met Mr Owen at McKittrick on that visit for the first time.

Q How did you meet him?

A I met him at a restaurant at breakfast. He sat on one side of a small table and I sat on the other side. We were perfect strangers to each other. I asked him if he was interested in the oil business about McKittrick— [**1905**]

Mr Mills: I object to that statement as not responsive to any question and as a mere voluntary irrelevancy.

Mr Lewers: It is responsive. You may complete your answer.

A I asked Mr Owen if he was interested in the oil industry in the district and he said he was employed by the Southern Pacific Company. I asked him in what capacity he was employed and he said he was assistant to Professor Dumple who was in Texas, at the head of the Geological Department of the Southern Pacific Company. I told him I was from the Land Department of the Central Pacific Railroad Company.

Mr Mills: I object to that and move that the answer be striken as wholly uncalled for by any question.

Q By Mr Lewers: You may state the rest of the conversation.

A I told Mr Owen that I was connected with the Land Department of the Central Pacific Railroad

Company and was interested in the geology of the oil districts, and had come down to learn what I could about the geology of the oil districts in the valley. He said he would be very glad to show me anything he could, and we had considerable conversation.

Mr Mills: It will be understood that this objection will go to all this?

Mr Lewers: I will agree to that, Mr Mills.

Q Had you heard of him before that time?

A I had not. I didn't know there was such a man as Mr Josiah Owen till he told me his name at the breakfast table.

Q After this conversation and after he had stated that he would show you what he could there, as you have related, what did you and he do?

A We had considerable conversation about the field. Mr Owen told me he was unfamiliar with the geology of California [**1906**] and asked me if I was familiar with it, and I told him I was quite familiar with the main features of the geology, and I gave him an extended outline of the chief formations that he should expect to find in that vicinity, and we proposed to drive about the fields together, and examine some of the formations. He was anxious to know something about these formations more that he did know, and to know how to classify them and so forth, and I was anxious to see the local geology, and we worked harmoniously together and made several excursions at that time around the McKittrick and Midway fields.

Q Before taking up more in detail those excur-

sions that you have referred to as being made at that time, what was the state of the literature on the geology of the country at that time?

A The literature was very meager. There were only one or two papers that referred to this region at all about McKittrick and Sunset and Midway. I had the papers published by the State Mining Bureau by Mr W. L. Watts and I had Mr Eldridge's paper published about 1900.

Q Who was Mr. Eldridge?

A. George H. Eldridge of the United States Geological Survey. He had one or two papers. One was on the asphalt deposits of the United States, in which he referred to the asphalt deposits of California in Kern county, and some paper in a bulletin—I don't remember the number. Aside from those four papers there was hardly any literature at all. I believe that Whitney, who was at one time state geologist of California—away back in the '60's—had discussed the geology of the Mount Diablo region more extensively than anybody else, and had referred to the country about the Buena Vista Lake region or Kern Lake region.

Q In any of the literature that was then in existence, [1907] that you have mentioned, was there any reference made to the territory not then developed as being oil territory?

Mr Mills—That is objected to because the papers referred to by the witness are the best evidence.

A Yes. Mr Watts in his bulletin by the State

Mining Bureau referred to quite a number of the districts that he considered prospective oil districts.

Q Will you mention some of them?

A Yes—

Mr Mills—Let me understand from counsel. Do you mean that you want the witness to recite what was in these bulletins?

Mr Lewers—No; the districts to which it refers.

Mr Mills—I again object for the reason that the papers themselves are the best evidence.

A Mr Watts referred to such districts as Moody Gulch in the Santa Clara Valley and Purissima oil district, Half Moon Bay and Matol district, Humbolt county, and of which I personally prepared a report, the Krayenhagen country, the Kettleman Hills, the Devil's Den, the Temblor district north of McKittrick, and several others in which there has been no development since.

Q In any of the literature of that kind did you find any reference to what are now known as the Elk Hills as being oil territory?

A No; I did not. I searched the literature then extant on the geology of this region, and I believe that as far as I have been able to discover (and I searched pretty exhaustively) no reference was ever made to the Elk Hills or to the region north of the Buena Vista Lake until 1910, when the United States Geological Survey published Bulletin No. 4 and Bulletin No. 6. Those contained the first reference to the Elk Hills or to that district that I have ever seen in

print in any standard geological literature or any other. [1908]

Q Coming back to the occasion immediately following your first meeting with Professor Owen, I believe you have stated that arrangements were made to make various trips around the country. Now, will you proceed to state where you went, if you made those trips?

Mr Mills—Let me ask counsel what is the purpose of that question?

Mr Lewers—To show where they went and what they did.

Mr Mills—Is it for the purpose of qualifying this witness as a geologist?

Mr Lewers—Partially; and for other purposes as well.

A The first trip I made with Mr Owen was to the hills north of the Temblor Valley, and we drove up to the Temblor ranch house and stayed all night and examined the geology between McKittrick and the Temblor ranch house, and the following day we went on foot on to the mountains north of the Temblor ranch house into the foothills of the Temblor Range. That was the first trip we made. We came back from there to McKittrick and started again to make other trips.

Q On that first trip that you have just mentioned, state whether or not you had any conversation with Professor Owen with reference to what are now known as the Elk Hills.

A Yes; I did.

Q Will you state what that conversation was and how it came up?

Mr Mills—Let us know the time that it occurred and who was present, if anybody.

Mr Lewers—It has already been stated that it was early in March, 1903.

A The time of the visit or trip was early in March, 1903, and there was nobody present but Mr. Owen and myself. The conversation was between us two. [1909]

Q By Mr Mills—And occurred in what place?

A On top of the hill north of the Temblor Valley.

Q Just you two railroad geologists together?

A Yes.

Mr Lewers—Do you think it is necessary, Mr Mills, to indulge in remarks of that kind?

Mr Mills—I don't see anything offensive about that remark.

Mr Lewers—It was intended to be.

Mr Mills—It was not intended to be. It states a fact.

Q By Mr Lewers—You may proceed.

A As I came across the valley from Bakersfield to McKittrick, the first thing I saw that looked like a hill were the hills to the south of the railroad, on the west side of the valley. I didn't know the names of them, but I saw a group of hills rising like a great dome on the border of what I undertood to be an oil belt—not far away from the border of what I understood to be an oil belt—and my attention was attracted to that group of hills. They were the hills now known as the Elk Hills. As we stood on the top

of the hill north of the Temblor Valley, we had a very good viewpoint of all the surrounding regions toward the valley and along the flanks of the Temblor Range. It was a little higher than most of the other spurs. Mr Owen told me had been there about a month and had visited about all parts of the valley contiguous to McKittrick. I asked him, among other things, what that group of hills was toward the southeast. He said he didn't know the name of the hills, but it was a group of hills that was distinct from all the rest of the hills about, as I could see they were. I asked him if he had been over in the Elk Hills—into those hills—(I didn't say "Elk Hills", but "those hills") —and he said he had. I asked him what he saw over there and he told me generally— [1910]

Q What did he tell you?

A What the conditions were—what he saw. He said it looked to him like an anticline running through those hills from northwest to southeast, but that there was no outcrop on the surface from which he could learn anything. I said, "Are there any marine fossil beds cropping up over there at all?" He said, not as far as he knew; that he had not seen anything in the line of fossils. That there was no hard formation visible at all as far as he knew. They were all clays and shales, such as we could see in the immediate vicinity of McKittrick; but that he had seen enough to convince him as to the structure of the hills and the character of the surface formations. I asked him if it looked anything like oil land over there and he said he hadn't seen anything that looked like oil;

that he didn't think it was an oil district or that it was oil land.

Q What else was said in that respect?

A I remarked that it appeared to me that they were a long ways out from the foothills of the Temblor Range.

Q Mr Mills—I object to that statement and I move that it be stricken as a mere voluntary statement on the part of the witness.

Q By Mr Lewers—You may proceed to give the conversation.

Mr Mills—Do you think it is relevant, Mr Lewers, or material in this case, or even competent, to have this witness state what he told Mr Owen on that occasion?

A Mr Lewers asked me for the conversation. I am trying to repeat the conversation.

Mr Lewers—I certainly do. It is certainly relevant.

Mr Mills—I object to it on the ground that it is a self-serving statement and nothing else. [1911]

Q By Mr Lewers—You may proceed and give the conversation.

A I remarked to Mr Owen that I thought the hills were a long ways out from the foothills of the Temblor Range where the oil was likely to be. He said yes, it appeared that way to him. That is about as much as I recall, of the conversation. I remember definitely that we had such a conversation and that is as near as I can repeat it.

Q In that you are referring to the conversation that took place on the trip up to the Temblor?

A Yes; as we stood on this prominent point north of the Temblor Valley.

Q During that trip while you were up there, was any other territory in that vicinity discussed?

A Yes; we discussed the territory immediately contiguous to our point of view or viewpoint, and all of the rest of the territory, as far as we could see it. And I asked him just where he had been; if he had been on the hills to the east of the Temblor, and he said he had.

Q Now, after that trip up there, did you go to any other part of the field with him on that occasion?

A Yes; we went back to McKittrick that day and the following day we went from McKittrick toward the southwest to a place called Crocker Springs. I had asked him if he knew of many outcrops of oil-sands in the flanks of the Temblor Range, and he told me of this point in particular. I often talked of this point known as the Crocker Springs and the outcrop of sand in that immediate vicinity. He regarded them as an outcrop of oil-sands that underlaid the Midway Valley and extend toward the McKittrick.

Q Did you go to Crocker Springs?

A We went to Crocker Springs and measured the outcrop. [1912] We examined the outcrop—the sand—and we measured.

Q What sand was it that you measured?

A There were several beds of sand. They are distributed through a group of strata about a thou-

sand feet in thickness. I don't recall exactly how much sand there was. It was in separated beds or strata. There was more in the lower part of this particular group. As I would place it now, it is about the base of the Santa Margarita formation.

Q Did you reach any determination at that time as to what it was?

A No; I didn't attempt to classify it then? I accepted his view tentatively.

Q What was his view?

A That this represented the outcrop of the oil-sand that furnished the oil at McKittrick and the Midway Valley.

Q During that trip to the Crocker Springs, on the second trip that you took with him, state whether or not you and he had any discussion of the oil possibilities in any part of that territory.

A Yes sir; we did.

Q State what that conversation was.

A On our road back from the Crocker Springs to McKittrick we followed the foothills toward the east, and then to the north of the McKittrick, and as we traversed the country between Crocker Springs and McKittrick on the return, we talked about the probabilities or prospects of oil in the North Midway field. We both concluded that it was prospective oil land—in fact, probable oil land—from what we could see there and knew generally about the country at that time.

Q Did you make any other trips with him on that visit?

A Yes; I believe it was the following day that we made another trip into the Midway Valley to see the outcrop of these [1913] same sand beds further to the southeast, and I believe we went down nearly to the present position of Fellows—in the foothills west of Fellows.

Q Now, on this last trip that you have mentioned down to the Midway, was there any discussion between you and Mr. Owen as to the territory in that vicinity, as to being oil land or not?

A Yes.

Q State what that discussion was, as near as you can.

A That was one of the main purposes of our trip, was to know as near as we could discover where the prospective and probable oil land lay.

Q. And what territory did you discuss as you recollect it?

A Well, we discussed the prospective merits of the Midway — the Midway Valley and in the immediate vicinity of the foothills around about. There were some hills lying immediately to the east of the Midway Valley, and I asked him if he had been into those hills. He said he had; and I asked him about the structure of them. He said as well as he could observe there was an anticline running down through those hills. He referred to what is now known as the Buena Vista Hills.

Q Now, was there any discussion on that trip as to where that anticline ran with reference to McKittrick?

A Yes.

Q What was that discussion?

A We concluded that it was probably—

Mr. Mills: The question was what was the discussion.

A I don't remember the discussion. I remember better the conclusions.

Mr. Mills: Then I shall object to evidence as to the conclusions.

Mr Lewers: What conclusion did you reach? [1914]

A We concluded that that anticline was a continuation of the McKittrick anticline. It appeared to us at that time to be a continuation of the McKittrick anticline.

Q Now, was anything said on that trip with reference to the hills which are now known as the Elk Hills?

A Yes; they were in plain sight, and I talked about them.

Q What was said?

A I don't remember definitely what was said. I remember the gist of it, the conclusions. I don't remember the conversation that took place on that trip with reference to the Elk Hills, but I do remember that the subject came up, and our conclusions were that—

Mr Mills: Well, I object now to any further statements of conclusions, without giving the conversations which occurred. These are mere impressions

of the witness on something that might have occurred in the conversation.

Mr Lewers: You may state what conclusion you reached.

A Our conclusion was that these hills laid too far away from what we had seen as representing the outcrop of the oil sites — too far away to ever be valuable oil territory.

Q Now, did you at that time make any comparison yourself of the conditions there, and those at Kern River?

A Naturally I did. I spent several days about Kern River looking up the formation and examining the logs of the wells, as far as they were available, and talking with drillers and superintendents about the Kern River field, and I very early discovered — very quickly discovered in the Kern River field the evidence of a river delta, and my conclusion was in reference to—

Mr Mills: Now, just a moment. I want to object, first, to the opinion of this witness expressed as to the Kern River [1915] field, as it is wholly immaterial to the issues in this case; and I can see no relevancy at this time as to what opinion he may have had at that time as to the Kern River field, and it is outside the issues raised by the pleadings in this suit.

Mr Lewers: Complete your answer.

A My conclusions in regard to the Kern River field were that the oil sands existed in a delta deposit of Neocene times made by the detritus carried by Kern River from the adjacent mountains. It was a

typical delta deposit, as far as I could discover. I was thoroughly convinced that that was the case, and am yet. I have had no occasion to change my views in that respect, but at that time I remember definitely as I stood on one of the hills of the Kern River district, looking about the field, I fancied the conditions that existed there in Neocene times when these oil measures were being deposited as sediments, and they were the conditions of the delta. I also noted the fact that not withstanding these delta conditions, the drilling in the field had pretty clearly outlined or determined the western margin of the sands. As far as I could discover from my investigation, the western border of the field was pretty clearly demarked by the developments that had been made.

Mr Mills: Now, I move that all this dissertation as to the Kern River field and the fanciful indulgence of the witness on the subject, being remote from the land in suit some forty or fifty miles, be striken from the record.

A While I was at Kern River, I visited the property of the Southern Pacific Company in the field, and met the superintendent, Mr Futhay — I don't remember his initials. Mr. Futhay is now dead. And I told Mr Futhay my conclusions as to the delta conditions.

Mr Mills: I object to any conversation of that kind.

Mr Lewers: There are certain reasons— [1916]

Mr Mills: Yes, there are certain reasons why this witness has impressed me as intending designedly

to incumber this record with objectionable evidence, with hearsay evidence with random people he has met, no chance to cross examine on whatever, and insists on inserting in the record here, regardless of any objection made by me, and before I can make an objection. Now, I object to any statement made by this witness of conversations with Mr Futhay, or any other person, except Mr Owen. That, I think, is material. As to any of the Southern Pacific Company's superintendents in the Kern River field, and the statements they made to this witness, they are not only incompetent, but it is highly improper for you, as counsel for the defendants, to attempt to get such evidence as that into the record.

Mr Lewers: Mr Mills, if you will express your objections briefly, without indulging in language which is intended to be insulting, which a courteous attorney will not conscientiously employ toward a witness, we will proceed much faster. It is not my purpose to introduce any testimony that I do not regard as proper; and when you so suddenly intervened, I was going to suggest to the witness that the conversation was not proper.

Mr Mills: Well, I don't know anything about that, Mr Lewers. I simply know that the witness went on talking while I was making my objection, and it impressed me with the idea that he was intending to put that into the record whether it was objectionable or not.

Mr Lewers: Mr Anderson, the conversation with

the superintendent, of course, will be purely hearsay as far as this issue is concerned.

A Very well. I only wanted to explain my conclusions. You asked me what I based my conclusions on in regard to the Midway field, and I am telling you — preparing you or giving [1917] you the foundation.

Q I desire you to do that, but not to give any conversation with the superintendent.

A I only wish to refer to Mr Futhay and to this fact, that Mr Futhay took me in a buggy and drove back on the hills east of Kern River, as another step in the development of my information. He showed me the outcrop of some fossil beds that belonged to the Kern River group, which includes the oil regions. It gave me the means of determining the actual width of the Kern River field from east to west.

Q What was that width?

A It was about five miles in width. My observation at that time was that under the conditions of the delta on which this field was formed, that the sand would carry seaward about five miles. That was the width of the sand beds containing the oil measures.

Q Now, when you went over to the west side in the vicinity of McKittrick, had you reached those conclusions already as to the Kern River field?

A I had reached those conclusions in regard to the Kern River field.

Q Now, what condition did you find on the west

side at that time, or what conclusion did you reach as to whether there was any delta conditions there?

A There were no delta conditions on the west side at all. I saw no evidences of any stream coming in to the basin from the west. Instead of this, I saw what appeared to me to be something like a shore line adjacent to islands that existed in the Neocene epochs when these strata were deposited. The conditions on the west side were very different from those on the east. I saw no reason to expect the sands to be spread from the shore line in toward the interior of the basin, more [1918] than two or three miles at most. I thought that if they were spread under the Midway Valley from its proposed shore line as far east as this so-called anticline that Mr Owen described, that was about as far as the sands could be expected to extend under the conditions as they appeared to me at that time, and our conversation in regard to the geological conditions of the locality, were to take effect.

Mr Mills: Just a moment.

Mr Lewers: Did you discuss the occurrence of sands on this trip?

A We did.

Mr Mills: Just a moment. I want to interpose an objection to the last statement of the witness, that the conclusions and conversations between himself and Mr Owen were to that effect, as he says. I think the witness should give the conversation that he had with Mr Owen and let the court determine the effect.

A I would like to say, Mr. Mills, that I can't

recall the details of the conversation absolutely, as I can the conclusions that we reached.

Mr Mills: That may be true, Mr Anderson, but I am objecting to the form of your testimony—the form in which it goes into the record.

A You understand conclusions are the important thing always, and what we are after. It is the conclusions we hope to attain; not the means by which we reach them. They are not material to the matter in hand, but the conclusions are of very great importance.

Mr Mills: You won't attempt to arrive at a conclusion for the court.

A I will state my conclusions.

Mr Mills: The court is entitled to know what the conver- [1919]sation is, Mr. Anderson, and then say whether the conclusion was such and such.

A I will also say that Mr Owen's conclusions and mine were entirely harmonious.

Mr Mills; I object to that statement and move that that be striken from the record.

Mr Lewers: Was there any discussion between you and Mr Owen at that time with reference to this matter of the appearance of the sands as you have outlined it?

A Yes, there was.

Q Are you able to state now what that conversation was?

A No, I can't repeat the details of the conversation. I can't remember what he said or what I said,

but I can remember my conclusions, and they were in perfect accord with his.

Mr Mills: I object to that last statement of the witness, because he says he can't remember the conversation, and I think that the statement by the witness of any conclusion reached from any conversation with Mr Owen, is not only highly improper, but it is incompetent.

Mr Lewers: Mr Anderson, do you remember whether or not any conclusions were expressed by either you or Mr Owen as to the result of your conversation and discussion of the geological situation?

Mr Mills That is also objected to for the same reason.

A Yes.

Mr Lewers: And what conclusion was expressed by yourself, if you remember, as to the sands and the appearance of oil at that place?

Mr Mills: The same objection is made to that question as to the three previous questions.

A Conclusions as to what, Mr Lewers?

Mr Lewers: Primarily as to the occurrence of the sands in [1920] comparison with the Kern River field — what conclusion did you reach and express?

A I expressed the belief and the conclusion that I did not expect the sands to have been carried farther eastward from the outcrops than two or three miles, and if they had been carried as far eastward as the anticline he stated existed in the Buena Vista Hills, that was about as far as we could expect the sands to occur.

Q Now, what is the explanation geologically of that condition — what conclusion did you reach at that time — what was the cause of the sands not being carried out further, according to your idea?

A You are asking for my line of reasoning by which I reached those conclusions?

Q Yes.

A I can state that better than I can the conversation. I will have to go back to this third trip that Mr Owen and myself made to the foothills immediately west of Fellows. Mr Owen told me about some overbeds back there that he thought were glacier deposits, and he was anxious to show me these glacier deposits, and I expressed my opinion to him at that time that I did not expect to find any glacier deposits so low in altitude; that as far as I was acquainted on the Pacific Coast glacier deposits did not come below an altitude of 5000 feet in any part of California. He said there was no other way that he knew of accounting for these boulders, and wished me to see them. I went with him and saw the boulders, but I did not give them the interpretation that he did. I saw distinct evidences of a drift along shore.

Q In what direction?

A We speculated as to the source of these boulders and whence they were derived, and I told him that it appeared to me [1921] that they must have come from the southeast, from the direction of Pine Mountain, the large mountain to the southeast of Sunset. Mr Owen thought that these boulders had

been carried by floating ice. I told him that the burden of proof was on him, to show that there was floating ice at that epoch, that the whole deposit looked to me like a shore drift, and showed more than anything else the direction of currents that existed in the basin at the time these deposits were being formed. And I so interpret them at the present time.

Q Now, why did you state that you thought they came from Pine Mountain?

A Because that was the only available source that I could think of. As far as I know, and as far as he knew, there were no outcrops of graniterocks anywhere else, from which they could be derived. Now, I reasoned further that if the currents of that epoch were along the island shores toward the northwest, and were strong enough to have carried this material from Pine Mountain as far as we saw they had been carried, that there would be very little chance for a transverse current from the shore toward the interior of the basin; and therefore I could not see any reason to expect the sands to be carried very far northeastward from the shore.

Q Now, generally — we will take it up more in detail later — where was that point that you called the shore situated, with reference to thepresent Temblor Range?

A It was along the northeastern foothills of the Temblor Range, and, in a general way, extended from Crocker Springs southeastward to this point, a mile or more west of Fellows.

Q Did you make, on that visit to McKittrick, any other trips than the ones that you have stated? I mean while you were there on leave of absence.

A Did I make any other trips in that vicinity? [1922]

Q Yes.

A Well, only locally, in the immediate vicinity of McKittrick.

Q At that time, where was the oil development going on in the vicinity of McKittrick?

A Chiefly along the McKittrick anticline. There were a few wells drilled on the hills to the north of McKittrick — along the hills. I don't remember more than two wells that were drilled on the hills north of McKittrick.

Q And going down toward the Midway over the territory that you travelled on that last trip, what was the development down there in that direction at that time?

A There was very little development at that time. We saw scattered derricks on the hills in the vicinity of Fellows, and from there to the southeast. There were one or two derricks that stood rather on the eastern quarter of the north Midway — I don't remember their location definitely, but I understood at that time that there had been some drilling done there. I believe now that one of these wells was located on section 11, township 31-22. I believe it is the well shown on the southwest quarter of section 11 on this exhibit number 16.

Q Did you visit that well at that time?

A I did not.

Q How long were you at McKittrick, approximately, at that time?

A I was there probably three or four days; I think about four days.

Q And after that, where did you go?

A I went back to Bakersfield and from there to Los Angeles. I came to Los Angeles. I went out into the district in the northern part of the city, and I went out to Whittier.

Q When was it with respect to that visit to McKittrick [1923] in March of 1903, that you went into the Geological Department of the Southern Pacific Company?

I didn't quite catch your question.

Mr Lewers: Read the question.

(Last question read by the reporter.)

A I entered the Geological Department about the first of April following.

Q Of 1903?

A Of 1903.

Q How did you happen to do that?

A Mr Owen told me that there would be a department of geology located in San Francisco, that the staff of assistants was not filled, and that if I wished to enter the Geological Department, there would probably be an opportunity for me to do so; and he gave me Mr Dumble's address in Texas, and I wrote to Mr Dumble and he told me that he would be up to San Francisco about the first of April, or a little before, and would be very glad to see me. Mr

Dumble came up to San Francisco and I went to see him.

Mr Mills: Now, just a moment, please.

Mr Lewers: Did you —

Mr Mills: Unless you want to bull something in.

Mr Lewers: If you cannot observe the dictates of common courtesy, I will have to insist that all further examinations be taken before the court, or we will have the ordinary proprieties observed. I don't like that expression "bulled" being used toward a witness. I don't propose to stand for that.

Mr Mills: Well, Mr Lewers, common courtesy between counsel would ordinarily dictate to you, if you have not learned it yet, that when I ask for permission to make an objection in this case, it is ordinarily granted as a matter of right, but you pay no attention at all to the rules of ordinary courtesy, [1924] nor have not for sometime in this case. I move that all the evidence which the witness has given about letters between himself and Mr Dumble be striken from this record as it is manifestly secondary evidence. The letters themselves are the best evidence, and have not been produced, although they are available to the defendants in this case.

Mr Lewers: As a result of Prof. Dumble, were you employed by the Southern Pacific Company?

A I was.

Q When did you begin your work for that company?

A I began my work early in April, 1903.

Q And where?

A First in the Lompoc field, Santa Barbara County, and afterwards in the Santa Maria field. After that in a number of prospective fields along the coast line of the Southern Pacific northward to the Salinas Valley.

Q And when was it that you again went into the West Side field in Kern County, as near as you can remember?

A I don't remember the next visit I made to the Kern County fields, but the next one that I can definitely remember was in September, 1903.

Q By the way, did you make any report to anyone connected with the Central Pacific or the Southern Pacific or the Southern Pacific Railroad Company, of the results of your trip when you first met Prof. Owen at McKittrick?

A I did not. I didn't make any report to anybody except to Mr Mills verbally when I came back to San Francisco. I went to see Mr Mills and he asked me where I had been and what I had seen, and I gave him a verbal recital of where I had been and what I had seen and what my ambitions were to go into the department of geology.

Q When you went back there, which you say you think was [1925] in September, what work were you carrying on?

A I went back to Kern County in September in response to a newspaper clipping that was handed me by Prof. Dumble referring to some iron deposits on the summit of Pine Mountain, and I have a copy of the report that I made on supposed iron deposits.

From Pine Mountain I came down to the Sunset. I went from Bakersfield to Pine Mountain, which brought me around to Sunset, and there I met Mr Owen and a team and driver and gentleman by the name of Burls.

Q Who was he?

A Mr Burls claimed to be the assistant of Boverton Redwood, the English oil expert.

Q Now, how long did you remain down there on that occasion after you completed your work on Pine Mountain?

A I can't recall definitely how long I remained in Kern County, but it appears to me that I was there about two weeks.

Q And during that time, where were you engaged in carrying on your work?

A We stayed all night at Sunset that night. Mr Owen had our camp outfit in a wagon, and we camped at Sunset. The next morning we started and drove up through the hills to Maricopa, and from there to the northeastward around the south and east flanks of the Buena Vista Hills, and camped on the Buena Vista Lake sometime in the afternoon.

Q And from there where did you go?

A Well, that afternoon Mr Owen and I went on foot into the Buena Vista Hills. We went as far as the southwest corner of section 11, township 32-24, and examined various outcrops in that vicinity and made some estimate as to the thickness of strata exposed about the hills, and we noted the peculiar de-

posits there are on the western border of section 11. [1926]

Q What did you conclude they were?

A We took them to be deposits of asphaltum.

Q Well, and following that, what other examination did you make of any part of that territory during that period you were down there?

A We made an estimate as to the thickness of the strata exposed and the structure of these hills. We were convinced that the Buena Vista Hills at this place were a dome-like anticline — the structure was a dome-like anticline, and the occurrence of this supposed asphaltum we took to be pretty conclusive evidence that this was highly prospective oil land; that is to say, we thought it had an excellent showing as prospective oil land.

Q Well, what conclusion did you reach, if any, at that time, as to the thickness of the overlying formations?

A We estimated it by pacing across the hills back toward our camp, and examining the map and noting the distances on that map, and we concluded as well as we could learn it, that there must be about a thousand to fifteen hundred feet of strata exposed on the eastern dip — eastern and norther-east dip of these hills that overlay this outcrop of supposed asphaltum.

Q Do you know whether that exposure is mentioned in any publication concerning those hills?

A I think that particular exposure I have never seen mentioned. Bulletin 6 mentions a similar one farther to the northwest.

Q In the Buena Vista Hills?

A In the Buena Vista Hills.

Q And what did that indicate to you, if anything, at that time, as to the probable depth of the territory, if there was oil there?

A At that particular time it was — we didn't have very [1927] much data for judging the depth, and I don't remember that anything was said at that time as to the probable depth at which oil might be expected.

Q Now, did you examine any other territory besides that you have mentioned in the Buena Vista Hills, at that time?

A Yes, we drove from Buena Vista Lake back toward McKittrick up a long valley to the south of the Elk Hills, south and west of the Elk Hills. As we drove along the road we examined at intervals the formations and we were discussing the various aspects.

Q Now, did you at that time go into the Elk Hills?

A No, I did not.

Q Were you able to determine or did you determine at that time anything with reference to the relative erosion on the Elk Hills and that in the Buena Vista Hills?

A We did. We saw the south slope of the Elk Hills from the distance which we were, and it appeared to us that there was very little erosion on the south and west slopes of the Elk Hills, while in the Buena Vista Hills we did see evidence of specific erosion.

Q To that extent?

A To the extent of 1500 feet, probably.

Q Well, did you at that time, as you now recollect it, reach any comparative conclusion as to the erosion in the two hills?

A You mean reach any conclusion as to the comparative erosion?

Q Yes.

A I don't remember that we definitely compared the erosion. It was only a fact of general observation that there was very little erosion on the Elk Hills, as far as we could see, and there had been considerable erosion in the Buena Vista [1928] Hills.

Q Now, after that did you continue your work at any time, on that occasion or at any other later time, in that vicinity?

A We went from McKittrick, on this trip, across the Temblor Range and westward toward the Cariso, San Juan River, as it is called, and made a wide excursion in that direction to study the geology and to see if there was any prospect of there being oil land out in that direction.

Q Well, how large an area did you cover?

A That would be very difficult to answer.

Q Approximately.

A We drove from McKittrick across the Temblor Range and to the Cariso range of hills; we camped in the Cariso ranch-house. That ranch-house is probably about thirty miles by wagon road from McKittrick. From there we drove down the San Juan River to near the La Panza Springs, and then turned

eastward across the Cariso Valley by Simler and back to over the Temblor Range, by the Temblor ranch-house, and from there to McKittrick.

Q Now, did you, in any part of the year 1903, while you were traveling over that country, yourself go into the Elk Hills?

A I did not.

Q Well, why didn't you?

Mr Mills — That is objected to as irrelevant and immaterial.

Q By Mr Lewers — You may answer.

A Mr Owen had given me an account of what was exposed in the Elk Hills, and had repeated it two or more times, and I felt that his statement was satisfactory — for the time being, at any rate — and I didn't know of any very definite reason for going into the Elk Hills. I had a curiosity to go into the Elk Hills and confirm or controvert his views, but I never found an opportunity or occasion, or had sufficient interest, to in-[**1929**]duce me to do so. I felt that his statement of the case was entirely satisfactory and annulled any excuse that I might have for going into the Elk Hills.

Q Well, now, from that time on, after your September trip into the country, were you in any part of that country during the following year, 1904?

A Yes; I was there repeatedly, both at McKittrick, Midway and Sunset, though I cannot now recall the occasions or the times, except that I was there during 1904 more than once.

Q What were you doing?

A Studying the geological conditions of the foothills of the Temblor Range and noting all the outcrops that had any bearing upon the economic feature of the country.

Q Did you know, in 1903, anything about a company known as the Kern Trading and Oil Company?

A Yes; I did. The Kern Trading and Oil Company was being organized about that time. I believe it was organized, as far as I know, about 1903.

Q Well, did your work have any connection with that company, if you know, at that time?

A Yes; it did.

Q What connection?

A The principal object of our work down there was to study the geological conditions of the country, with a view to making selections of land to be taken over under lease by the Kern Trading and Oil Company from the Southern Pacific Railroad Company.

Q Well, now, what kind of land was it that you had in contemplation as to being included within this lease?

A We wished to include in this list of land all lands that were oil-bearing or prospectively oil-bearing, had any reasonable chance of ever proving to be oil land. [1930]

Q Did you make any reports upon any of the land that you examined, as to its character as to whether it was proven oil land or prospective oil land?

A Yes.

Q And to whom were those reports made?

A I don't remember making any written report

prior to 1905. I reported verbally to Mr. Dumble and to Mr Owen; told them what I saw there and what my conclusions were, and so forth.

Q That was prior to 1905, you mean?

A Yes; prior to 1905.

Q Well, now, in examining land for the purpose of determining what land should be turned over to the K. T. & O. Company, did you go into the Elk Hills at all?

A No; I didn't.

Q Do you know whether or not Mr Owen was carrying on an investigation for a similar purpose or for the same purpose?

A I believe he was. In fact, I know he was. We worked together with the same end in view.

Q Now, during the year 1905 you have testified that you, during that year, made some written reports, for the first time. What territory did you examine? Will you state generally, without going into detail, as to what was done; that is, in what territory did you make examinations during that year?

A I think that in the fall of 1905 I made an excursion with Mr Owen and a driver around the Southern end of the valley towards Kern River. We left McKittrick with our camp outfit and went down along the foothills of the Temblor Range, through the western border of Midway and down to Maricopa and Sunset, and from there eastward along the foothills of the Tehachapi Range to the Tejon Ranch, ranch-house, and from there northward along the foothills towards Kern River, and we stayed there at

Kern River and then went back to San Francisco—or I did. [1931]

Q. Now, did you, at any later time, after 1905, Mr Anderson, make any examination of lands for the purpose of determining what lands should be included in a lease to the Kern Trading and Oil Company?

A I did.

Q When was that?

Mr Mills — Are you referring now to a lease which is in evidence here?

Mr Lewers — No. I am referring now to another lease which we produced and which you didn't put in evidence.

Mr Mills — Is it in evidence now?

Mr Lewers — No; it is not in evidence yet.

Mr Mills — Well, I shall object to any evidence of that until the lease itself is put in evidence.

Mr Lewers — Read the question. (Last question read by the reporter.)

A As I recall now, I made a report on some land about 1907. I don't recall now the work upon which this report was based. It was based rather upon a general information developed at that time.

Q Well, what had happened, if you know, to the records and files of the geological department of the Southern Pacific Company prior to 1907 and after 1905?

A Well, all the files that were in San Francisco were burned up in that fire on April 18, 1906. I lost all my own note-books, personal note-books, and all my personal maps and records and copies of reports,

and everything I had, in fact, pertaining to this work.

Q Mr Anderson, I show you a letter, paper, and ask you if you know what that is.

A Yes. This is a letter written by myself, dated August 12, 1907. [1932]

Q By whom is it signed, or was it signed?

A Well, it has my signature. It was attached to it by a stenographer, Miss Fox.

Q And do you recollect the preparation of that letter?

A Yes.

Q How was the original of that letter prepared, if that is not the original?

A I wrote the original in my own handwriting, in longhand, and gave it to Miss Fox to keep. This is a copy that she made of it.

Q What was your habit at that time with reference to the preparation of letters of that kind, or any other kind, in the office?

A I always wrote my reports out in longhand, complete, and gave them to the stenographer to copy, and asked the stenographer to make a copy for myself, if I wished to retain a copy, and it was my habit to retain a copy.

Q What was done with your manuscript?

A It was usually destroyed. I threw it into the wastebasket after I was satisfied as to the correctness of the copy that had been made.

Mr Lewers — We offer this letter in evidence, with the statement that the list referred to I have

been unable to locate and will produce if I can — that is, the particular one referred to.

Mr Mills — This, I understand, is the copy of the original.

The Witness — This is the copy of the original hand-written manuscript.

Q By Mr Lewers — This is the original letter as sent?

A The original letter I submitted to Professor Dumble.

Q By Mr Mills — Where did you get this paper which you have identified as a paper prepared by your stenographer from [1933] your manuscript?

A The sheet on which I wrote?

Q This paper I hold in my hand — where did you get it?

A The stenographer gave it to me.

Q Your stenographer gave it to you?

A Yes sir.

Mr Lewers — You mean where did he get it now to produce? Is that what you mean?

Mr Mills — Yes. It appears to be addressed to Mr Dumble, at Houston, Texas.

The Witness — Mr Lewers just handed it to me.

Q You didn't get it from Mr Dumble?

A I did not.

Q This was the paper which was sent to Mr Dumble?

A It was.

Q You don't know what has been done with the letter since it left your office, in the mails?

A I do not.

Q Is this the first time you have seen it since?

A I saw it yesterday, or day before yesterday.

Q And you don't know how it was procured?

A I do not; no.

Mr Mills — I shall object to the introduction of the letter, unless the addressee, Mr Dumble, is produced to account for whether he ever received it or not. It has no bearing here, and introduced for any other purpose would be a merely incompetent and self serving declaration of the witness; and for the further reason that the enclosures referred to are not with the letter and the letter itself bears evidence of having been detached from some other papers, presumably the list referred to.

Mr Lewers — I wish it was the list referred to. It is a duplicate of that list, but not the one that accompanied that [1934] letter.

Mr Mills — Not knowing anything about what it refers to, I cannot indulge any wish that counsel has. I would like to ask counsel at this point of the evidence, inasmuch as he has now produced a letter which the witness has stated he sent to Mr E. T. Dumble, at Houston, Texas, whether or not he intends to produce on the witness stand Mr Dumble for examination as to this letter, the list referred to in the letter, as to whether he ever received it or not, and as to other matters in which Mr Dumble has been interested in this case.

Mr Lewers — I don't think I am called on to answer any question; but I am perfectly willing to

tell you that Mr Dumble will be produced as a witness in this case. I have already told you so twice.

The letter last referred to and offered in evidence is marked "Defendants' Exhibit 18 — LL."

Mr Mills — I think, thne, that counsel should delay the introduction of this letter until Mr Dumble is on the stand.

Q By Mr Lewers — Mr Anderson, I show you Plaintiff's Exhibit 4-1, a list of lands for transfer from Southern Pacific Railroad Company to the Kern Trading and Oil Company, which was produced by the witness Irwin Owen as having been found amongst the papers left by his father, Professor Owen. Will you examine that list and state whether or not that list, or a similar list, was ever submitted to you for your examination and report.

Mr Mills — I want to ask counsel, before that question is answered, whether he has the list referred to in this offer which has been marked "Defendants' Exhibit 18".

Mr Lewers — I have already stated that I didn't have that list. I thought I had it, and I discovered that the one that I had that was attached in the file clearly cannot be the one. [1935]

Mr Mills — Well, is it your purpose now, in the absence of the list referred to in this letter, and with no better accounting for its absence, when you offer this exhibit, to attempt to show by this witness that the list which was sent was similar to the list which you have just handed him?

Mr Lewers — Certainly.

Mr Mills — I shall object, then, to any such questions for the reason that they are incompetent at this time. That the list is not properly accounted for or its failure to be produced here. It has been shown on the record that Mr Dumble is and has been for some years the consulting geologist of the Southern Pacific Company, and, presumably, this letter was turned over to counsel by Mr Dumble, although he does not so state.

Q By Mr Lewers — Are you ready to answer the question?

Mr Mills — Just a moment. There is another objection. It appears further that the letter refers to a separate and other list of lands which was sent by Dumble to the witness. I ask counsel where that list is.

Mr Lewers — I don't know what you refer to.

Mr Mills — There are two lists in the letter referred to.

Mr Lewers — Very true, and this will all straighten out as you will see.

Mr Mills — I ask now for the production of that list before this question is answered.

Mr Lewers — I have explained to you that I have not either one of those lists, and I fully believe that the originals accompanying those letters have been misplaced or lost. I thought I had them and I discovered that the ones that I attached are evidently copies and not the ones that accompanied the letter.

Mr Mills — These lists referred to in Defendants' Exhibit 18 were not destroyed in the fire, were they?

Mr Lewers — Oh no. Just simply through misfiling. That [**1936**] is all. Read the question. (The question is read by the reporter.)

A I remember receiving a similar list, and this list was the basis of my report, of which this letter was a part.

Q That is, the letter that has just been introduced, do you mean?

A Yes; it refers to a list similar to this that I received from Professor Dumble.

Q Now, in this letter of yours of August 12, 1907, you state, "You will notice that I have added to the list herewith enclosed some sections to the south of Kern River. In accord with statements made in a report made November 25, 1905, I would include these at least, though as yet nothing has been actually discovered in this direction. See Township 29 South, Range 28 East, and 29 South, Range 29 East, M.D. M." Your letter refers to the additions made to the list submitted to you. By that do you mean additions made to this list similar to Exhibit 4-1?

A Yes.

Q And, as you recollect it, where were these additions situated.

A To the south of Kern River. That is, in the district south of Kern River on the east side of the valley.

Mr Mills — I want to object to this line of examination because there is no way for counsel for the government to check up the list. The list is not here. The witness says it is similar to this list, and, at best,

his testimony, even if competent, would be vague and indefinite.

Q By Mr Lewers — Now, when you say "similar to this list", what do you mean by that?

A I mean that as far as I can discover it is identical with this list. It was a copy of this same list. [1937]

Q Did you in any report that you made in 1907 or at any time prior thereto, whether written or verbal, suggest or recommend the inclusion in the Kern Trading and Oil lease of any lands in Township 30 - 23?

Mr Mills — That is objected to for the reason that the recommendation is the best evidence. It is not produced here for some reason best known to counsel. His failure to produce it has not been accounted for. For all that counsel for the government may know, that list probably contains the very lands in this suit.

A I never recommended to Professor Dumble or to anybody the inclusion of any land in Township 30 - 23 — Township 30 South, Range 23 East —

Q By Mr Lewers — Did you not recommend the inclusion of Section 31?

A Unless it might have been of Section 31. I believe there was Section 31.

Whereupon the further taking of testimony herein was adjourned until 2 o'clock P.M., at the same place.

On Wednesday, February 19, 1913, at 2 o'clock P.M. the further taking of testimony herein was resumed pursuant to the adjournment: Willis N. Mills, Special Assistant Attorney-General, appearing

on behalf of the plaintiff and Charles R. Lewers, Esq., appearing on behalf of the defendants.

Whereupon FRANK M. ANDERSON was recalled and direct examination resumed, as follows:

Q By Mr Lewers: Mr Anderson, going back and beginning at the time when you first went to McKittrick in March, 1903, and tracing through your investigations of that country and the surrounding country through 1903 and 1904, I wish you would give in your own way an outline of the conclusions you reached yourself as to any facts concerning the geology of that [1938] country with reference, particularly to the occurrence of oil. You understand the scope of the question, do you?

Mr Mills: That matter has all been covered at the morning session, hasn't it?

Mr Lewers: No.

Mr Mills: Or was that testimony this morning understood to be a joint conclusion reached by the witness and others?

Mr Lewers: You will have to take it as it is in the record.

Mr. Mills: It seems to me to be redundant and a repetition.

A I would like to explain, without having my explanation of record, that the development of my investigation was progressive, and as far as the testimony this morning is concerned, was joint, as it was at that time. However, my own personal views diverge somewhat from Mr Owen's. I think Mr. Lewers is asking for that now.

Q By Mr Lewers: That is what I have in mind. I want your own conclusions and the data that you observed and considered, stated in your own way from the standpoint of a geologist.

Mr Mills: I withdraw my objection. This is prior to 1901?

Mr Lewers: During 1903 and 1904.

A I would like to make this statement without having it in the record at all.

Mr Lewers: Put it in the record, whatever statement you have.

A I desire to give a full and straightforward account, the truth, and nothing more; and I would like to do that without any interruption, and without any attempt to cover it up in any way. I want the truth. That is my chief interest in this case.

Mr Mills: Of course, the purpose of objections and the purpose of cross examination generally, Mr Anderson, is to test the witness, and one having regard for the rights of his client [**1939**] usually takes such precautions as he can to avoid any misrepresentation or any untruthful statements, or any inadvertently wrongful statements going into the record. The objection does not necessarily mean that the objector believes the witness is stating an untruth, but that he is sifting it according to the rules of evidence, whether it is properly to be introduced or not.

Mr Lewers: Proceed with your answer. Mr Mills, of course, has a right to make such legal objections as he deems necessary for the protection of his client's interest. The purpose of my question, Mr.

Anderson, is to get, if you can state it in that form, the conclusions as you formed them during those two years 1903 and 1904, irrespective of later investigations.

A Yes, I understand that. The conclusions I stated and gave this morning, were based upon what I saw of the McKittrick field the first few days I was there — McKittrick and Midway. As time went on and I got a further acquaintance with the local geology, naturally my own views developed, and they diverged somewhat from Mr Owen's views — not materially, but they changed sufficiently so I think I am warranted in making as clear a statement as I can as to my own personal views. He showed me this outcrop of sand at Crocker Springs, and the continuation of it southeastward to a point back of Fellows. Subsequently I traced that formation out more extensively and followed it to a point south of Fellows. I continued the mapping of it some miles to the southeast and from the northwest. Also I will state this in regard to Mr Owen: He was not a palaeontologist. He knew nothing about fossils except what someone told him, and he relied upon me for any interpretation of fossils and for classifications of rocks very largely; but still he had his own individual ways of thinking, and concluded in regard to the matter. Now, I determined very soon, to my satisfaction, that this sand that he [**1940**] showed me — these beds of sand were not the outcrop of the true oil sands.

Mr Mills: This was the sand at Crocker Springs?

A Yes; that the true oil sand lay farther east-

ward and higher up in the series; and I found fossil evidences to the effect that this particular series was of Santa Margarita age. This evidence was developed before the end of 1904 from our study of the conditions at Coalinga and the intervening country between Coalinga and McKittrick. Our conclusions, reached together, were set forth in a paper which was published in 1905. I have a copy of it here.

Mr Lewers: What paper was that?

A That was the paper referred to this morning in the testimony as Stratigraphic Study of the Mount Diablo Range.

Q That was published under your name, was it not?

A Yes.

Q Was it prepared by you?

A It was absolutely prepared by me, and I proposed in that paper a classification of formations, and suggested several names that had been adopted by the United States Geological Survey for groups of strata and evidence. Now, before the close of 1904, I found a reason to separate the marine beds of the McKittrick and Midway country into two groups, the older of which I called in this paper the Coalinga formation; the latter one I called the Etchegoin. The term "Coalinga formation" was dropped subsequently for good reason, and its place was taken by the name Santa Margarita, which really had precedence. The term "Etchegoin" was continued and is in use now in literature. Now, I believe that I could distinguish between the Etchegoin and the Santa

Margarita formations in the McKittrick, Midway and Sunset Districts, and I saw very good evidences — very good reason to believe that they should be separated and I also, as [1941] I stated, have seen reasons why these particular sands at Crocker Springs should be regarded as Santa Margarita. This did not affect materially the general conclusions upon which our work was based — our work of selecting lands to be taken under lease by the Kern Trading & Oil Company, but it worth while for a fuller statement of this matter in subsequent development to have this difference between my view and Mr Owen's views brought out.

Q What was the difference?

A Well, the difference was essentially that he consented.

Mr Mills: Let me interpose a formal objection here to the immateriality of this at this time.

Mr Lewers: It may be considered as made without repetition, if you desire.

Mr Mills: Yes, and any other objections that I may have to it.

A Mr Owen continued to regard this outcrop at Crocker Springs, and the continuation of it southeastward as outcropping of the oil sands. I did not. I believe that the oil sands lay farther east, and while I did not find them in the outcrop in the Midway field directly, I found them to the South of the Midway field near Sunset, and I found them to the north of McKittrick in the Gould Hills. A definite outcrop showing considerable relation to the Santa Margarita

formation below, and I showed these to Mr Owens and tried to explain to him that this formation was the horizon that carried the oil sands. The third place was right near the town of McKittrick where the oil sand crops out and the fossil beds along with them, so that there need not be any doubt as to placing pretty accurately the stratigraphic position or horizon of the oil sands. I had three points within the limits of this reach where the Etchegoin points crops out and carried fossil evidence of which we could definitely locate their position in the stratigraphic scale. **[1942]** And also in each of the three places they showed the oil sands in such a position and relation to the developed fields and to the prospect wells as to leave no doubt as to the facts. Mr Owen never fully grasped this matter, as far as I can discover.

Mr Mills: I object to that statement as a conclusion of the witness not borne out by any testimony in the case, and a mere conclusion, and as incompetent. And I move that is be stricken.

Mr Lewers: The answer will stand. You may proceed.

A Furthermore, after finding these outcrops, I was enabled to measure the overlying strata or estimate the thickness of the stratigraphic beds or of the strata superimposed upon the oil sands and this I did. I made an estimate as to the thickness of the strata that were overlying the oil sands near the town of McKittrick.

Q What was that estimate?

A That is, taken in connection with the logs of

the wells which were available at that time in the McKittrick field. I concluded that the Etchegoin formation in this McKittrick and Midway and Sunset Districts had an average thickness of eight or nine hundred feet — stratigraphic thickness — and that superimposed upon the Etchegoin was a great thickness of strata which aggregated more than 2000 feet. I made an attempt to measure this strata overlying the Etchegoin at two points. At one point they aggregated over 1900 feet in thickness and at the other point something over 2100 feet in stratigraphic thickness. I had reason to believe that that was not the total thickness of the series as it had been deposited, for the reason that the exposed rocks had been reduced in thickness by erosion to an unknown extent at both points. I could definitely measure at those two points these thicknesses of the strata, and did so. Does that answer your question? [1943]

Q Now, what distinction if any was there between the Santa Margarita formation and the last formation that you have mentioned as being about 2000 feet thick, as to their origin, as to whether one was marine and the other not?

A The Santa Margarita formation and the Etchegoin formation are both marine. The later formation is of a fresh water origin and belongs to the group of strata that I call the Tulare formation. That name is in current use in the literature.

Q What term is applied in Bulletin 406 to the various strata that you have mentioned?

A I believe that the authors of Bulletin No. 406

confined the Tulare and Etchegoin under one formation that they called the McKittrick series.

Q Then when they refer to the McKittrick series, they are referring to what you denominate as the Tulare and the underlying Etchegoin? Is that correct?

A Yes.

Q Now, did you reach any conclusion at that time — I mean during 1903 and '04 — after you had determined this thickness of the Tulare formation independently of McKittrick, as to its probable thickness as it dipped towards the San Joaquin Valley or away from the Temblor range.

A I would say, as I did before, that in the outcrop along the foothills in the vicinity of McKittrick this series is reduced in thickness by erosion. That is one fact to be remembered. Another is that the thickest part of any sedimentary series is usually found in the central part of the basin in which it is deposited, particularly if the basin is of limited dimensions as it was in this case. The basin of the San Joaquin Valley or the southern end of it is somewhat circular in outline towards the south, west and on the east. That is, the outline of the basin describes a broad semi-circle or more than [1944] a semi-circle. And the sediments coming into the basin during any of these epochs would be distributed more or less all over the floor of the basin from all points of entry. That is to say, a point in the interior of the basin appeared to be and does now to be subject to a greater accumulation of sediments, since it receives contribu-

tions from all points on the shores of the basin. Therefore, the original series in its deposition would be thicker from these contributions, particularly if the sediments were in the nature of clays and muds which would be readily carried about. The action of the water in sorting these materials and distributing them builds up the thickest accumulation in the central part of the basin, and would in this case.

Q Now, taking that statement as you have given it, did that cause you to form any conclusion during those two years as to whether or not this overlying Tulare fresh water formation would be thicker or thinner as it approached the Elk Hills?

A Very logically as the Elk Hills stand out toward the interior of the basin, this formation would be thicker in the position of the Elk Hills than along the shore-line or along the borders of the basin where it was originally thinner and where it has subsequently been reduced by erosion.

Q Now, coming back to the discussion between yourself and Mr Owen about the oil-sands, as I understand you to state, you concluded that the sands at the base of the Etchegoin were the oil-sands — is that correct?

A Yes sir.

Q And the Etchegoin at that point is the formation immediately overlying what is known now as the Santa Margarita?

A Yes sir.

Q Now, where were the sands that Professor Owen claimed to be the oil-sands, situated with ref-

erence to the Etchegoin and the Santa Margarita? [1945]

A Why, they were farther around, farther back on the slope of the Temblor Range.

Q But with reference to their being in the Santa Margarita or Etchegoin, where were they?

A They were older and deeper in the stratigraphic series than the Etchegoin.

Q If those sands that he referred to as the oil-sands, were older and deeper, and were in the Santa Margarita, would they, underneath the Elk Hills, be deeper still than the Etchegoin sands that you had in mind?

A Well, I have not admitted that either one underlay the Elk Hills; but the stratigraphic level to which they belong might be carried beneath the Elk Hills and that plane, if I may so call it, for the Santa Margarita, of course, would be much deeper than the corresponding plane for the Etchegoin.

Q That is, you mean that the sands might themselves not persist under the hills, but that something corresponding in period would — is that it?

A Something corresponding in stratigraphic position.

Mr Mills — I object to that for the reason that the witness has not made that statement; also, it is leading and suggestive.

Mr Lewers — I want you to explain what you mean by that. What do you mean by the sand stratigraphic series?

A I don't know that I get your idea, Mr Lewers.

I stated that the — Please read my statement there.

(Last answer of the witness was then read by the reporter.)

Mr Lewers — What I am trying to get at, Mr Anderson, is an explanation of what you mean when you say that sands that were exposed along the Temblor Range, which you concluded belonged to a period which you now call the Santa Margarita, would not, you say, certainly go underneath the Elk Hills? Now, what would be the reason, if that were true, in accordance with the [1946] conclusions you then reached?

Mr Mills — Now, I object to that question, for the reason that that re-states what the witness has already said he did not testify to. He stated that he had not admitted that either one of these sands went under the Elk Hills, but that the stratigraphic series—

A Plane.

Mr Mills — — Plane, went underneath the Elk Hills, as I understood his testimony.

Mr Lewers — Yes, that is the way I understand it.

A What is the question, then, Mr Lewers?

Mr Lewers — Well, in short, if you have a stratigraphic plane showing sand at one point, will it show sand at all other points of that plane?

A No. As you follow that stratigraphic plane away from the shore-line conditions, or from shore conditions, it becomes less sandy and composed more and more of finer sediments like clays and muds, so that a sand that represents shore conditions in the outcrop, might pinch out in a very short distance,

and not be represented by sands at all, although the stratigraphic plane might be continued indefinitely under the floor of the basin.

Q From the time when you went into the employment of the Southern Pacific Company in the geological department, you have stated that you examined various fields or territories, some of which you have outlined. What, if any, instructions did you have as to where you should go?

Mr Mills — Were those instructions in writing or given orally?

Mr Lewers — Let us see what they were.

Mr Mills — Let us understand that first before the question is answered. [1947]

A As a matter of fact, there were no instructions — practically none at all — either in writing or verbally, except a very general one to make what geological study I could of these valley borders in the oil districts, with a view to developing geological information, all of which was preliminary to the specific purpose of selecting lands that could be taken over for the Kern Trading and Oil Company. It was a very general sort of instruction, the instructions that I got, and both Mr Owen and myself were left to follow our own devices in making it out, and our own convenience to do this work in connection with other work that we were doing in other parts of the country. We were given the most general sort of instruction.

Mr Lewers — Well, were there any limitations as to where you should go?

A Not at that time; not prior to 1907, I should say.

Q Now, what conclusions did you reach yourself, Mr Anderson, in connection with your work in 1903 and 1904 as to the methods of migration and accumulation of oil?

A Do you mean what theories did I hold as to the methods of oil migration or accumulation?

Q At that time, yes.

A Why, my views on that matter, I think, have been clearly stated in one of the papers that I published.

Q Which paper do you refer to?

A It was the paper on the Kern River — the Neocene deposits of the Kern River region.

Q That is a paper that was published in later years?

A Yes.

Q Does that represent the views that you held in 1903 and 1904?

A It does. It represents the only views I ever had of the origin and accumulation of oil. [1948]

Q I have that paper here. What portion of it is it that you refer to, Mr Anderson?

A It is found on page 116 and page 117. I think probably the best answer that I could give to this question of yours is to ask some one to read this published statement.

Q Well, now, I want to see whether that fully answers the question. On page 116 of the Proceedings of the California Academy of Sciences, Fourth

Series, Volume 3, issued November 9th, 1911, appears the following:

Mr Mills — I wish to object to any reading of this report into this record. The witness is still alive and in fairly good health and can testify.

Mr Lewers — "The opinion has been unequivocally expressed, (referring to the foot-note, United States Geological Survey Bulletin No. 357 at page 73) that in the Coalinga field the real source of the petroleum is in the Eocene shale underlying the Neocene, and that migration of the petroleum upward through the strata has brought it into its present repositories in the Neocene oil measures. That petroleum in some parts of the Mt Diablo Range and elsewhere has originated in the Neocene, cannot be denied, and it is also now found there in many places. But to conclude that all or any of the Neocene oil measures have derived their supplies from the Eocene is illogical and unnecessary. The Neocene beds themselves contain the same organisms in even greater abundance than does the Eocene, and this is particularly true of the Mt Diablo Range. And there is no reason to suppose that the oil found in the Neocene measures has not originated in the Neocene strata themselves. The view here expressed is that the oil found in any Neocene group has more probably originated in that group, and that migration would be far easier along the planes of beds and lamination than at right-angles to the same. That thick beds of clay and shale often restrain oil, water and [1949] gas, is quite well demonstrated in California, and

even within the Temblor basin the upward transverse migration of these substances under normal pressure has been successfully resisted by certain impervious beds of these clays.

"Naturally in the sedimentation of any basin the sandy detritus usually remains near shore, and the finer materials are carried away to other localities to be deposited. Also if Diatomaceae and other delicate organisms form any appreciable deposits, they will more probably be formed off shore. In subsequent regional deformations of the strata, the organic deposits are apt to be left occupying the position of synclinal depressions, bounded by the sandy shore line deposits left lying in positions inclined toward the interior of the basin. If such organic deposits give rise to any supply of petroleum or other liquid or gasious substances, these may be forced to migrate laterally along the bedding planes of the strata, and into the sandy strata of the border, far more readily than they could be forced upward through the clays and shales and into overlying beds.

"And, if deposits of petroleum are subsequently found in sandy shore-deposits we may expect to find not far away in the same beds the source and origin of it. Along the Kern River the conditions are all that could be required to support the view that lateral migration has been the means by which accumulation has taken place, and the same may be said of all the other producing or non-producing fields in the Temblor basin. The extent to which water, oil, and gas may migrate laterally along bedding planes in the

progress of geologic periods, is of course, very great; but the fact that it is retained at all in the rocks, even under enormous pressure, is very good proof that it cannot migrate in a vertical direction, transverse to the bedding planes." When was it, Mr. Anderson, [1950] that you formed the conclusions that are thus expressed by you in 1911?

Mr Mills: I believe he stated already that he always held that opinion.

A I think my first grasp of that view was gained from a paper prepared or written by Prof. O'Neil of the University of California, and I don't remember the date of the publication, but it was prior to 1903. And, as I remember it now, that is pretty nearly an expression of his views, though somewhat enlarged. When I came to Kern County for the first time in March, 1903, I quickly recognized the plausibility of that view. It met the requirements of the case better than any conception that I could possibly imagine and the further I have looked into this subject and studied and thought over it, the more firmly I am convinced that that is the sound working hypothesis, and I believe it is the one generally in vogue among geologists. It is the accepted view.

Q By Mr Lewers: Now, taking that as a representation of the view which you held in 1903 and '04, where was it, Mr Anderson, that you expected that oil would be found with reference to the Temblor range, if you reached a conclusion on that point?

A I expected that it would be found in the foothill districts of the Temblor range. That is, in a

comparatively narrow zone flanking the Temblor range. on the northeast, and oil would be found only within the limits of the littoral sands or limits of distribution of the littoral sands or shore sands of the Etchegoin epoch or whatever epoch might have produced the oil-bearing strata.

Q And do you know — (this may be answered by yes or no) — what the general view amongst men who are operating in that field during those years was on that point? [1951]

A I don't know what they generally thought. I didn't talk with very many in regard to that. The only men that I recall talking to are my associates in the Southern Pacific, Mr Owen and Professor Dumble, and such others as might ask me for my ideas on the subject.

Q Then, you are not generally conversant with what oil men who were operating talked about in that connection at that time?

A I think that rather unconsciously and without very definite analysis of their ideas — that they generally took that view of it or some such view.

Q Where were they operating at that time?

A The operations were confined to a narrow zone along west of McKittrick and along the Midway and western borders of the Midway Valley, and the Sunset.

Q Do you know what view — I mean from anything told you by Mr Owen — he held as to the possible occurrence of oil to the west and southwest of

McKittrick, and, particularly, in the vicinity of Crocker Springs?

Mr Mills — That is objected to because Crocker Springs appears to be many miles distant from the lands in suit, and would have probably no bearing on the issue raised in this case.

A The second trip that I took with Mr Owen in March, 1903, was from McKittrick southwesterly to Crocker Springs, and our return to McKittrick was around the foothills in a semicircle back toward McKittrick. He told me at that time that he believed that that was oil land that we were driving over along the northern border of the Midway Valley, now commonly known as the North Midway. He believed that that would be oil land and said so.

Q What did he establish as the south and west border of what he called the oil land there? That is, what geologic [**1952**] indications?

Mr Mills — I object to that question on the ground that it assumes a fact not in evidence. There is no testimony that he ever established any boundaries.

Mr Lewers — That is his letter in evidence.

A I stated this morning that he showed me the outcrop of Crocker Springs and showed me the continuation of this outcrop to the southeast, to a point west of Fellows, and he told me that that was the outcrop of the oil-sands, and that he did not expect anything to occur back of that. Naturally, I understood that.

Q West of that?

A West of that. Now, I should have stated

awhile ago my own personal view in regard to the matter.

Q By Mr Lewers — What were your views at that time with reference to oil being at the place where he said it was in that particular region?

A At that particular date I had no particular data by which or on the basis of which I could differ from him. Subsequent work, though, developed the facts as I have stated them before, and I believe that the true position of the oil-sands would be further to the northeast a mile or more. In fact, I thought they would lie somewhere near Fellows or in that immediate vicinity — probably a little west of it. Now, one of the things that led me to this conviction, and I should have stated it before, was this: That in following this outcrop of the sands described as Santa Margarita, they led to the southwest of the Chanslor-Canfield property, for instance, on Section 8, Township — I will have to look at a map — Section 8, Township 32 - 23 — I undertook to make an estimate of the thickness of the beds between this outcrop of supposed oil-sands to the southwest, and the producing wells of the Chanslor-Canfield [**1953**] property, any my estimate of the stratigraphic thickness of the beds exposed to the southwest of the wells that had been drilled was about 4500 feet, and yet these wells all derived their oil from a depth of about 1200 feet. That is, the wells were only from a thousand to 1200 feet deep in general, while the outcrop of the strata between the wells was 4500 feet.

Q How did you reconcile that in your own mind at that time?

A As I stated before, that was one of the reasons why I did not believe that this outcrop was the outcrop of the true oil-sands.

Q What conclusion or conclusions did you reach during those years with reference to whether the Temblor Range was a part originally of a large body of land or of a smaller body?

A In September, 1903, as I stated this morning, we crossed the Temblor Range from McKittrick westward toward the Cariso Valley, and we found flanking the range on both sides the same stratigraphic series belonging to the later Neocene epoch, on the one side, including the oil measures and the beds of the Santa Margarita, and the other side the same beds, a large area of formations much older intervening. That is, the central axis and the central area of the Temblor Range was of an older series, and we found evidence of shore conditions along both borders of this older area.

Q What conclusion did you draw from that evidence?

A That this area represented an island in the epochs represented by these deposits.

Q Did you find any evidence of river conditions anywhere on that West Side?

A No; I did not. All the streams that we had any evidence of or could conclude existed there at all must have been very small streams. There probably was recognized a considerable [1954] stream coming into

the border of the basin from the south, from the direction of Pine Mountain, but nothing from the direction of the Temblor Range excepting local and small streams and gulches.

Q Has there, Mr Anderson, been any change or development in the general geologic knowledge of the oil conditions in California since you first went into the West Side fields in Kern county?

A Undoubtedly there has been a change in the knowledge of geological condition in and about these oil districts. Certainly. It would naturally be expected in the progress of development and the progress of geological study that the views and conclusions would be altered and developed.

Q What was the state of progress at that time of the geological knowledge in California of oil conditions?

A Well, it was very immature. There was but little known concerning the stratigraphic and structural features of these oil districts. The work of Mr. Owen and myself in there was in the nature of pioneer work in unknown fields. Nothing practically of consequence had been published with reference to the geology, and the papers that I have prepared at that time were in the nature of pioneer work, and I think they probably contributed considerably toward the development of the geological information.

Q Now, is there any other conclusion or any other evidence that you made use of in drawing your ultimate conclusions about that territory in 1903 and

1904, besides what you have outlined already, that now occurs to you?

A Yes, there is. It was a common belief among operators that if you got far enough away from the foothills and from the outcrop of the oil-bearing beds, that you get into water conditions; and I remember particularly the case of one company, [**1954**] and the advice this company received from their own geologists as to that. Also Professor Watts has published some things in that regard that reflect the general views pertaining to that subject.

Q In which bulletin was it that Professor Watts' views are set out in that respect, if you know?

A I believe it is Bulletin 19.

Q Of the State Mining Bureau of California?

A Of the State Mining Bureau of California.

Mr Lewers: Have you that? I haven't one here.

Mr Mills: No.

Mr Lewers: Did that view which you say was generally held at that time, have any influence upon you in reaching any of your conclusions at that time?

A Well, it made me less — I should say, rather, it made me more conservative, naturally, in regard to the extent that I thought that the oil might extend. I don't know that it had any effect upon my conclusions really. If it had any effect, it was to make me somewhat more conservative, as I always regarded Mr Watts as a man of ability and high standing. Mr Watts is a personal friend of mine, and I felt that he knew a good deal about the oil formation of the country.

Q Did you have any conversation — this can be answered by yes or no — with Professor Owen with reference to these water conditions that Mr Watts referred to?

A Yes, I did.

Q When was that — in what year?

A Well, I can't know that. I would not undertake to make any statement of what Mr Owens think in reference to that. I think, though, that he felt that there was —

Mr Mills: Now, I object to any evidence by this witness as to conclusions reached by another man now dead, unless he can [**1956**] give the conversation and the time and place where it occurred.

Mr Lewers: Can you recollect, if not the exact conversation, the substance of any conversation you had with him at that time on that subject, or at any time?

Mr Mills: The witness has already stated that he cannot do that.

A I cannot be sure of any conversation bearing upon that particular topic. I can only give my general impression as to his attitude.

Mr Lewers: If that is not based upon any conversation, of course I don't want it.

A It is based upon conversations, but I cannot recall the details of those conversations. I can recall the methods that we pursued, and the lines of reasoning that we pursued. We often talked of these matters, for we travelled and camped together weeks at

a time, and all these subjects were subjects of conversation between us.

Q Now, will you state more in detail what he told you about his observations in the Elk Hills during those two years?

Mr Mills: Hasn't that been covered in this morning's session?

A I hardly think that I made a complete statement as far as I could of what he had said to me. He said that there was no outcrop of marine beds as far as he could discover, and no fossil beds of any kind cropped out in the Elk Hills.

Mr Mills: I think he testified to that this morning.

A Yes. Well, there is one other thing I did forget, that I would like to add to it.

Mr Mills: I think this is all objectionable. I have not objected to it heretofore, but I hope counsel will finally get down to something about the lands in this suit.

Mr Lewers: What was that additional matter? [1957]

A This was not, I believe, a topic of conversation — I don't think he mentioned it on my first visit there at all — but sometime in 1904 — I don't recall the date — I spoke to him about seeing some alluvial gravels on the hills north of McKittrick, and expressing some surprise at the fact that deposits of alluvial gravel should be found on the McKittrick hills north of McKittrick. He said he could tell me a more astonishing story than that; that he had seen these alluvial gravels over the surface of the Elk Hills, or

these hills that lie to the southeast of McKittrick known as the Elk Hills. That has its bearing upon the question.

Mr Mills: I object to that statement by the witness because it is a mere voluntary statement not called for by the inquiry. I am further confirmed in the belief that it is offered for the purpose of bringing a conclusion before the court that the court can well arrive at upon knowing what the conversation is.

Mr Lewers: Now, Mr Anderson, did he, in any of those conversations in 1903 and 1904 say anything about a gas blow-out or oil seepage or anything of that kind, or asphaltum indications anywhere in the hills now known as the Elk Hills?

A No, he did not. He had never seen anything of that kind at that time that he mentioned to me.

Q Now, leaving the period of 1903 and 1904, and basing your answers upon all of your observations of the geology of that entire territory on the west side, will you give, in your own way, an outline of first the geographical situation of the Elk Hills and the other hills in the vicinity, the Temblor range, and so forth, and then a description of its physical history, or stratigraphic history?

A That calls for a rather extended talk, Mr Lewers.

Mr Mills: Yes, I agree with the witness, that it is call-[1958]ing for a book on geology here which is not calculated to throw any light on the matter at issue. I should like to have counsel, if he will, sometime today get down to this witness's opinion about

the oil character of the lands in suit, which seems to be the only thing in dispute here.

Mr Lewers: You may proceed, Mr Anderson, notwithstanding the wishes of counsel. He can get them in due time.

A The Elk Hills, now known as the Elk Hills, form a physiographic unit, almost isolated from any other group of hills in this region, and with relation to the outcrop of the oil formations, they are a long ways out in the interior of the basin — from six to fourteen miles from the outcrop of the oil-bearing series. I have a map here that will illustrate this somewhat better than I could state it, and I would like to present this.

Mr Lewers: What is used as the basis of that map which you have now called my attention to?

A This is a topographic map here by the United States Geological Survey.

Q And by whom was the additional matter placed upon that map?

A I placed these lines on the map myself to indicate features that I wished particularly noted in connection with it.

Mr Lewers: We offer this map in evidence in connection with the testimony of the witness.

A The line colored green extending through the Elk Hills marks the approximate position of the axis of the anticline, or the axis of the chief anticline in those hills. There are subsidiary anticlines to the north and south not marked.

Q Describe the rest of the map, what it indicates.

A The dotted line, bordered in red, traversing the country southwest of McKittrick, and extending to Maricopa and [1959] and Sunset, is the approximate position of the outcrop of the Etchegoin sands as near as I can locate them.

Q Have you so denominated it on the map?

A Yes. The red line traversing the country from near McKittrick in a south easterly direction to the Buena Vista Hills, marks the approximate position of what may be called the Buena Vista anticline.

Q What are the blue lines an indication of?

A Blue markings indicate the general position of the Monterey rocks, and older rocks along the axis of the Temblor range.

Q And how have you indicated the Santa Margarita epoch?

A I have merely indicated that by writing in red pencil the general position of the Santa Margarita, applying between the Monterey and the Etchegoin.

Mr Lewers: I ask that this be marked as an exhibit.

The map last referred to and offered in evidence is marked "Defendants' exhibit 19, L.L."

Mr Mills: No objection to the map.

Mr Lewers: Now, you may proceed first with the discussion of the geographical situation, unless you have completed what you desire to say on that.

A You asked me for a recital of the principal events in the physical history of the region covering the valley borders, and the foothills and the Temblor Range.

Q That is right.

A I think that it is unnecessary to go farther back probably than the Monterey rocks — The rocks of the Monterey epoch, the middle Miocene. Following the epoch of the Monterey, there was a general disturbance that affected the Temblor Range, and induced unconformity. I believe there was an interval of erosion along the shore lines. [1960]

Q What do you mean by "unconformity" — what is intended by that expression?

A Unconformity between the stratigraphic groups is a phenomenon that is developed by a difference in age and a difference in physical history. I can illustrate it better by saying that if the shore line of any epoch suffers an uplift the water is driven away from that position to some new position. The original shore line stands subjected to areal erosion. Finally a subsidence of this region will induce a return of the water and the deposition of a new series of sediments upon the old, with an angular difference of strike and dip between the two series. It is an event that always is noted at once by the geologists, or it is a fact that is always noted by geologists, that speaks very clearly of a physiographic event —historical event in the geological history of the country.

Q Now, before taking up in detail the various epochs that are represented there, what is the reason for applying terms "Monterey" and "Santa Margarita", "Etchegoin" and other terms? Are they universal or local?

A These are more or less local and not used very

much outside of the limits of what has been defined as the Temblor basis or this region of the Mount Diablo Range. The reason for separating these groups is that each group forms a stratigraphic unit.

Q Separated by unconformities?

A Separated from each other by unconformities.

Q Now, starting again, as you did from the Monterey.

A Following the epoch of the Monterey, there was a period of disturbance, as stated, and an uplift and an interval of land erosion, followed by a subsidence of the valley borders, which initiated the epoch known as the Santa Margarita. This [**1961**] epoch and subsidence and accumulation of Santa Margarita strata, continued a long time, during which the Santa Margarita group was deposited and accumulated within the basin. At the close of the Santa Margarita epoch, there was another uplift, a shifting of the shore, with a slight interval of land erosion, followed by a subsidence, during which the Etchegoin group was deposited in the epoch known as the Etchegoin epoch. At the close of the Etchegoin epoch there was another interval of disturbance in which the sea water was entirely excluded from the basin never to return, and the next series of strata following the Etchegoin is one of fresh water origin known as the Tulare. The principal events of the geological history have been pretty well outlined in this paper referred to in this discussion of the Kern River region. If I may refer to that paper, I can show you a graphic representation of this physical

history. Opposite page 118 there is a graphic representation of the oscillations that affected the Temblor Range and the immediate surrounding region, and in fact all of the Temblor basin, and in part, of the whole coast of North America. The oscillations are represented by the curved and undulated line which traverses this diagram. I think in general the diagram will speak for itself.

Mr Lewers: I offer this diastrophic record appearing opposite page 118, of the paper just referred to by the witness, in evidence, for the purpose of illustrating the testimony of the witness.

Mr Mills: This is objected to as irrelevant.

A I would like to explain to Mr Mills.

Mr Lewers: You may proceed with the explanation.

A This diagram is an attempt on my part to represent by this means the concensus of opinion of California geologists as to the principal geological events of the Tertiary and later periods. And it follows, in general, and very closely, the [**1962**] events as expressed by Dr. J. P. Smith in a paper written by him and published, a page of which is represented in this paper opposite page 106. This page opposite page 106 is taken from Prof. Smith's publication and used here by his personal consent.

Q Now, during what portion of that series of changes from epoch to epoch that you have outlined, did the Elk Hills come into existence?

A The group of hills known as the Elk Hills seems to me to have been of very late origin, and I

believe that is the view expressed by the authors of Bulletin NO. 406, and is one of the latest events of the physical nature of the country, and is depicted here on this diagramatic scheme in the last uplift at the right-hand side of the page, over the word "Recent".

Q That is, the Elk Hills would correspond to the last period indicated on that diagram?

A Yes.

Q Now, diverging for a moment to the matter of the alluvial sands, that have been referred to as being in the Elk Hills, have you seen those there yourself?

A I have — alluvial gravels.

Q How do you account for those being there, if you can do so?

A There is only one way of accounting for the alluvial gravels appearing over the surface of the Elk Hills. They are found on the summits of all the ridges, and form a sort of blanket formation on the summits of the ridges of the north slope and on the south and on the summit. This blanket has, of course, been dissected by the erosion that has subsequently affected the Elk Hills — That is, affected the Elk Hills subsequent to the deposition of these gravels. These gravels are properly interpreted as being deposits formed on the land surfaces by stream or gulch erosion. They are the alluvial deposits [1963] and an alluvial plain formed by the detritus carried from the Temblor Range during the recent epoch or during the epoch described on this diagram as the Champlain. It forms the closing epoch of the Pleistocene

period. These alluvial gravels are to be correlated directly with similar alluvial gravels found to the south of Kern River, and referred to in this papers.

Mr Mills — I will ask counsel if he regards it as important that this matter is referred to in that paper.

Mr Lewers — I don't know that it is important that it is referred to in the paper, no. I regard the gravels, however, as a matter of accumulation there, as quite important.

A I will give you a reference to the page.

Q I hardly think that is necessary.

A All right. These gravels on the eastern side of the valley are in the vicinity of Caliente Creek.

Q Now, prior to the Pleistocene period, during which, as I understood you, there was a general or continent uplift, from this diagram — is that correct?

A Yes.

Q —Was there, according to the conditions shown by the geological history of that territory, an opportunity, in your opinion, for the deposition of alluvial gravels in the region now covered by the Elk Hills? Do you understand what I mean?

A That is too long a sentence for me to undertake to answer.

Q I will put it in another way. You have stated that these gravels were deposited during the Pleistocene period — these alluvial gravels that are not in the Elk Hills.

A Yes.

Q Could similar gravels have been deposited earlier than the Pleistocene period?

A Well, they obviously were deposited at all periods in [**1964**] some part of the earth.

Q I mean in that territory.

A You mean in the vicinity of the Elk Hills?

Q Yes.

A There is no evidence of any such, and I think it is very improbable. As I stated before, it was only the valley borders that appeared to be affected by these oscillations. These oscillations disturbed, of course, the continuity of the stratigraphic deposition, and they are seen only and they are found only along the shores, and not in the interior of the basin. There could be no opportunity, of course, to investigate, by the outcrop, at least, and there is no reason to believe that it was deposited before this Champlain epoch of the Pleistocene.

Q Prior to this epoch, if you say the disturbances affected the shores, in your opinion what was the condition where the Elk Hills now are as to being on the shore or under water?

A They were under water. My conception and my opinion as to the condition of the locality of the Elk Hills is that it was undisturbed sea bottom. That is, undistorted by any of these oscillations prior to the very last.

Q Now, locating the point of elevation and disturbance by the names of ranges or other local names that are applicable and descriptive, where was it in the vicinity of the Elk Hills that the disturbance or

uplift was shown during those various periods? — with reference to the Temblor Hills, for instance?

A Please read the question.

Q I will re-frame the question and make it shorter and more to the point. You have stated that in your opinion the situation prior to the Pleistocene period where the Elk Hills are now situated was undisturbed sea bottom. At that time what was the situation where the Temblor Range now is? [1965]

A The Temblor Range seems to have been an island almost continuously and, in fact, I will state, continuously since their uplift at the close of the Monterey epoch, and probably in part long before the uplift at the close of the Monterey epoch. There are some very old rocks in the Temblor Range, dating back to the cretacious and pre-cretaceous periods.

Q Now, when this uplift occurred at the Temblor Range, what effect did that have upon the plane of the Monterey beds?

A It inclined them, of course. The Monterey beds were all left in an inclined position, with a dip in one direction or another, or, more or less, both.

Q And what effect, if any, would this have upon the migration of any oil that might be present in the shales of the Monterey epoch?

A It would induce a migration toward the valley borders. As soon as the distortion of the strata began and some portions were lifted higher than others, there would be induced a lateral migration of any oil that might be within this strata, towards those higher portions of the strata.

Q What would induce that?

A Generally the hydrostatic conditions — water conditions. Whatever water there might be would drive the oil out of the synclinal portions of the basin toward the border.

Q Now, after the Monterey epoch, I understand you there followed the deposition of the Santa Margarita epoch.

A Yes sir.

Q Of what does that consist generally?

A About the borders of the Temblor Range, on the foothills, the Santa Margarita group consists of conglomerates, sandstones and shales, the upper member being organic shales, the lower member rather conglomerates or boulders.

A Was there any tilting of the Santa Margarita beds [1966] similar to that of the Monterey beds?

A After the deposition of the Santa Margarita strata they were folded about their borders and were also left in an inclined position resting upon the Monterey older beds, but inclined at a different angle.

Q Would the same process as to the migration of oil take place in the Santa Margarita epoch that took place by reason of the tipping of the Monterey beds, if any oil were in them?

A Certainly; if there was any organic material or any that could be the source or origin of oil, or if there was any oil in the strata of the Santa Margarita group, within the limits of the basin, as soon as the Santa Margarita rocks were tilted and inclined, the migration of oil in these beds would naturally begin,

and the segregation of this oil about the borders of the valley, would begin to progress.

Q Now, following the Santa Margarita came what you have termed the Etchegoin period?

A Yes.

Q Did any similar disturbance and tilting take place in connection with that?

A Certainly. As I have already stated, at the close of the Etchegoin epoch there was a disturbance and folding of the Etchegoin strata, and about the borders of the basin these strata were left in inclined positions dipping toward the central part of the basin.

Q And in your opinion, what one of those formations contains the oil measures of the West Side field?

A As I stated this morning, the Etchegoin group.

Q Now, during the time when the Etchegoin epoch or the Etchegoin strata were tilted as the result of the uplifting toward the shore-line of the Temblor Range, were the Elk Hills in existence? [1967]

A No; apparently not. At least, there is no evidence that they were, and the only evidence we have is to the contrary; That the folding of this Etchegoin group did not include the area covered now by the Elk Hills.

Q Now, is there any distinction in your opinion, basing your opinion on any observations and conclusions that you reached from an examination of that territory, between the age of the Elk Hills and the Buena Vista Hills? Is there any evidence indicating that they are of the same age or different ages?

A Is there any evidence, do you mean, as to the time when the folding of these anticlines began?

Q Yes.

A Yes. In the Buena Vista Hills we have a definite evidence of unconformity on the axis of this anticline, which is to be interpreted as meaning that this anticline began its development at the time of the uplifting of the Etchegoin. That is, at the close of the Etchegoin epoch.

Q What is that evidence?

A It is the outcrop of marine beds showing shore conditions and unconformity. There are beach gravels and marine shells of beach-loving character, and rocks penetrated by borers, that showed that there was an uplift here prior, in fact, to the Etchegoin epoch; that this folding began prior to the Etchegoin. It must have, because the base of the Etchegoin contains these marine animals that show that at this point on the anticline there was evidence of an uplift prior to the beginning of the Etchegoin, and similar conditions are to be found following the Etchegoin.

Q Is there any such evidence in the Elk Hills?

A None that I have ever seen. I don't know where to look for them if there are anv. What evidence there is in the Elk Hills is rather to the contrary. [1968]

Q. In what way?

A. Well, the absence of any such conditions as these, and the very much gentler incline of the formations.

Q. Is there any difference in the amount of erosion

evidenced on the Buena Vista Hills and that evidence on the Elk Hills?

Mr. Mills—That has been gone into this morning.

Mr. Lewers—Not in detail.

A. This was mentioned this morning in the testimony; that the erosion and erosional effects are much more prominently conspicuous in the Buena Vista Hills that in the Elk Hills. The erosion in the Elk Hills is comparatively slight and has exposed not more than four or five hundred feet of strata, apparently the upper part of the Tulare formation. While in the Buena Vista Hills the erosion has exposed strata to a thickness of more than 1500 feet. That is to say, judging by the amount of strata exposed on the two anticlines, one is at least three times as much as the other—the erosion. The erosion in the Buena Vista Hills is three times as much as in the other.

Q. What does that indicate to you geologically as to the relative age of the two hills, the Buena Vista Hills and the Elk Hills, the two uplifts?

A. It indicates to me that the uplift of the Buena Vista Hills is much older and has suffered much longer erosion.

Q. Now, you have indicated on this map which you have prepared a red line from McKittrick down to the Buena Vista Hills. What is that intended to represent?

A. That is intended to represent the approximate position of the axis of the Buena Vista anticlne and

its mergence with that of the McKittrick. It merges into the McKittrick anticline to a considerable extent. I won't say that the two are exactly in alignment, although the folding is evidently the same [1969] and has followed the same general history.

Q. When was it that you first reached that conclusion?

A. Just which conclusion do you mean?

Q. I should be more specific in my question. When was it that you first reached the conclusion that there was probably a connection between the McKittrick anticline and the Buena Vista anticline?

A. I reached that conclusion very early. In fact, at my first visit. That was Mr. Owen's statement to me of the facts, and I took that as correct, and subsequently found them to be about correct or approximately correct.

Q. What was your own individual opinion in 1903 and '04 as the result of the work and examination you had made in that territory as to the Elk Hills being oil land?

A. My conclusion as to the likelihood of the Elk Hills being then or ever being oil territory was negative. That is to say, I did not believe that they were oil-bearing or ever would be found to be oil-bearing. At least, not in paying quantities—not commercially oil-bearing. I suppose that I did expect there might be some insignificant deposits of oil found in them, as there might be in any part of the country between Sunset and Coalinga if there was a well put down in

these beds. All of them throughout their whole extent are more or less organic in character, and if a well is put down in a strata containing these organic materials, there would be insignificant and unimportant occurrences of gas and oil found nearly anywhere, and that has been generally the case wherever wells have been drilled so far as I know. But as to these hills containing any commercial deposits of oil, I didn't believe they would, and I don't now believe they would.

Q. Well, now, why was it that you reached that conclusion at that time? **[1970]**

Mr. Mills—I object to that question, because the gentleman says he has spent all this time during the day leading up to his conclusion. Do you want him to traverse thatt whole subject again?

Mr. Lewers—not necessarily.

Mr. Mills—He has given us the Etchegoin and several other things that led him to that conclusion; difference of formation.

A. There is one detail that I would like to bring out at this particular point, and that is this: That I didn't believe the sands of the Etchegoin shore could ever be carried to the position of the Elk Hills, and, if it ever did, or any part of it ever reached that, it would exist there in very thin strata, only sufficient in thickness to allow a flow of oil, perhaps, along it, in its progress of migration elsewhere. But I have never expected to find in the Elk Hills any considerable thickness of sand in the position of the Etchegoin or any other, for the simple reason that they are,

in their geographical position, so far away from the source of sandy material—the shore-line. And, furthermore, the migration of oil began across this area in the early epochs of the Neocene, that is, in the Monterey and throughout the Santa Margarita and Etchegoin and the Tulare epochs, which covers a long period of time; and that the region of the Elk Hills and all of the interior of the basin in this progress of migration would be almost depleted of any contents of oil; that the Elk Hills might have, or the region or district of the Elk Hills might have, at some time contained an avenue along which oil did migrate, but that if there was any in it now it would be the tail end of the procession and not in commercial quantities and not significant as commercial deposits.

Q. By Mr. Lewers—Well, did you at that time form any conclusion as to the depth at which the Etchegoin formaton would be encountered in the Elk Hills? **[1971]**

A. Well, as I stated before, I did make some attempt to measure the thickness of the outcrop of the Etchegoin and the Tulare formation overlying it, and together they would aggregate considerably more than 3000 feet, and I concluded, therefore, that if there were Etchegoin sands in the position of the Elk Hills, they would be very thin and very deep below the surface—more than 3000 feet, at least.

Q. Did you ever have any conversation with Mr. Owen as to the matter of depth of the Etchegoin in the Elk Hills?

A. I don't know that I ever had any conversation

with him as to the depth of the Etchegoin; but of the beds likely to carry oil I did; that is, the beds that would carry oil if any did.

Q. What was that conversation? Give the substance of it?

A. Well, Mr. Owen told me that it was his opinion that if there was any oil under the Elk Hills at all it would be very deep and the sands would be thin. His view of this was developed in the progress of our conversation about the matter, and we looked at it harmoniously and from the same point of view and reached our conclusions by the same process of reasoning. There was never any difference if opinion between Mr. Owen and myself, as far as I know, as to the depth at which these Etchegoin beds, or the strata corresponding to the oil measures, would be reached in the Elk Hills.

Q. At that time what, if you know, was the generally regarded practical limit of well drilling?

Mr. Mills—That is objected to as immaterial and irrelevant to any of the issues in the case.

A. In 1903 and '04, I don't believe that there were any wells producing in California from a depth of 3000 feet. There was a well drilled in the Kern River field known as Grace well No. 5, of which I have seen a complete log, that went to the **[1972]** depth of 3166 feet. I will remark, however, that there was no oil found at that depth. This merely was to show that wells could be drilled and had been drilled to more than 3000 feet. But it was not generally considered

as a practical proposition. It was expensive and accompanied with a very great amount of difficulty and uncertainty as to economical results to put down a well to that depth. There were not many who could succeed in doing so by the means which were then in vogue. The rotary drill had not been introduced into California at that date, and drilling was done by the Standard methods; and I should say that 2000, or, at most, 2500, feet, was generally considered the limit of practical drilling.

Q. Would you at that time have advised any one to sink a well for oil in the Elk Hills?

A. I would not.

Q. Would you have advised any one to acquire the Elk Hills for their oil value?

A. I would not. I didn't believe they had an oil value, and therefore I would not have advised anybody to acquire them for any value they might have in oil. I never did advise anybody to acquire any property there, and have advised them to the contrary.

Mr. Mills—I move that the last part of the answer be striken, as not responsive.

Mr. Lewers—I submit it is responsive and should stand.

Q. Now, in inquiring this morning as to the employment that you have had since the time you began your active field work as a geologist in the California oil fields, I neglected to ask you whether or not you were still in the employment of the Southern Pacific Company.

A. I have not been in the employment of the Southern Pacific Company for more than a year and a half. **[1973]**

Q. And are you now engaged in the general practice as a consulting geologist, or what is your employment?

A. Yes; I am geologist for the Crocker Oil companies, including the Universal Oil Company and the Recovery Oil Company and a number of others in which Mr. Crocker has some stock.

Q. And, in addition to that, are you engaged in the general practice of your profession.

A. Yes; I am. I have the opportunity of doing considerable private work outside of my duties for these oil companies.

Q. Now, prior to the time when you severed your connection with the Southern Pacific Company, did you make any examination of the Elk Hills?

A. I did.

Q. And when was that?

A. I went into the Elk Hills first in 1911. I think it was in April, 1911.

A. And what examination did you make of the Hills at that time?

A. I went in there with an assistant, and together we spent more than a week, I should say—in fact, nearly two weeks—going over the lands involved in this case and all the adjacent and intervening lands, chiefly within Township 30-23, but going out into the surrounding townships to the east and south and west.

Q. What was the nature of your examination? How thorough was it?

A. It was as thorough an examination as our time and facilities would permit. We visited the wells that were then being drilled, and investigated the surface, or the alleged surface, deposits of such things as, so-called, fuller's-earth and gypsum, meerschaum, and various other things.

Q. Now, what was going on in the Hills at that time? **[1974]**

A. There was considerable work had been done on these surface minerals, surface deposits, such as they are, and there were a large number of wells being drilled, in progress of being drilled. I can't recall just how many. I could, though; if I should take the map I could tell you about how many wells were being drilled and by whom.

Q. Well, what I want to get at is, was there any degree of activity in there at that time?

A. Oh, yes; there was a considerable degree of activity. Everybody was active that was in there at all. There were a large number of companies that were actively prosecuting the work of drilling, hauling in their supplies and building up their camps, and surface improvements and drilling, spending money —lots of it. In fact, the activity was quite considerable—a good deal of interest felt by everybody.

Q. Had there, at that time, been any discovery of oil that you actually observed or that came to your knowledge, in the Elk Hills?

A. No; I didn't see a bit, not a particle of oil, in 1911.

Q. Now, after that examination, when did you next go into the Elk Hills?

A. I next went into the Elk Hills in November, 1912.

Q. At whose request?

A. At the request of the law department of the Southern Pacific Company.

Q. Who accompanied you on that trip?

A. Mr. Luke.

Q. And what examination did you make then?

A. We made a similar examination to the one I made in 1911. We drove over the hills and visited all the sections involved in this case, and the intervening and contiguous sections; in fact, traversed the hills from one end to the other, going as far east **[1975]** as Section 12 in Township 31-24.

Q. And how long were you in there on that occasion?

A. Quite a number of days. I don't recall the exact number, but I should say six or more days, six or seven days.

Q. And what was the condition in there at that time as to activity in oil work?

A. Well, there was no activity at all. The hills had been deserted by all the people that had been there a year before. There were a great many derricks and rigs standing idle, and a general appearance of abandonment everywhere. There were one or two care-takers of property. Aside from that we saw

no activity at all, except in Township 31-24 we met some men that were at work on these surface deposits.

Q. What were they doing?

A. Well, when we met them they were carrying their shovels and picks on their shoulders. I talked to them and asked them what they were doing.

Q. Well, we don't care for their conversation. Did you see any of the work that they had been doing?

A. I did.

Q. What was it?

A. Excavations in the hillside, digging of trenches and open pits and cuts.

Whereupon the further taking of testimony herein was adjourned until Thursday, February 20, 1913, at 10 o'clock A. M., at the same place. **[1976]**

On Thursday, February 20, 1913, at 10 o'clock A. M., the further taking of testimony herein was resumed pursuant to the adjournment: Willis N. Mills, Special Assistant Attorney-General, appearing on behalf of the plaintiff; and Charles R. Lewers, Esq., appearing on behalf of the defendants.

FRANK M. ANDERSON

recalled. DIRECT EXAMINATION resumed.

By Mr. Lewers:

Q. Mr. Anderson, did you either in 1903 or '04 report in any way the results of any of your investigations to the land department of the Southern Pacific Company, that is, to Mr. Eberlein's department?

A. No; I think not. I don't recall reporting any-

thing to Mr. Eberlein and I don't know of any excuse I would have for doing so.

Q. Did you know at the time you were in McKittrick in 1903 and in 1904 that lands in Township 30-23 had been selected and patent applied for by the Southern Pacific Railroad Company?

A. No, I did not. I had no information about the application made for them or about the patenting of them until after the patent was issued.

Q. How many shore-lines were you able to determine—that is, shore-lines of how many epochs—in the Temblor Range?

A. At what date?

Q. In 1903 and '04.

A. I couldn't now say that I definitely located more than one, though I surmised two others, with pretty satisfactory evidence as to the definite location of one of them at certain points. That is to say—

Mr. Mills—Just a moment. The last part of that answer is objected to as irresponsive to the question. Whatever the wit- [1977] ness surmised is not called for and would be incompetent.

Q. By Mr. Lewers—You may proceed.

A. The question is a difficult one to answer. In 1903 and '04 our information was somewhat incomplete, and we could only locate the Santa Margarita shore-line definitely at a few points, and that was true also of the Etchegoin shore-line. There were three points on the Etchegoin shore-lines that I could definitely locate. One was the east end of the Gould Hills;

second, near the town of McKittrick on Section 29, and the third near old Sunset.

Mr. Mills—Now, I shall object to any long dissertation in response to a question which calls specifically for a simple answer as to the number of shore-lines which could be determined at any certain period. I purposely refrained yesterday afternoon from objecting very much, in the hope that counsel would get down to some of the issues bearing on the case. But I shall continue to object to any long scientific discussion of simple questions.

Q. By Mr. Lewers—You may complete your answer, Mr. Anderson, if you desire to add anything to it.

A. I don't think that I desire to add anything more.

Q. Have you by subsequent work been able to determine anything further in that connection?

A. Yes; I have.

Q. What have you determined?

Mr. Mills—That is objected to as too indefinite to bear upon any of the issues raised by the pleadings in this case. The question is vague.

A. I have found still other points on both shore-lines, intervening between those then known, which serve to make the continuity of the shore-lines more complete.

Q. By Mr. Lewers—Then, what shore-lines are revealed **[1978]** there?

A. The shore-lines of the Santa Margarita epoch and of the Etchegoin epoch.

Q. Any of the Tulare epoch?

A. No; not so definitely. There are evidences of shore conditions along the base of the Tulare formation and its outcrop.

Q. Which one of these, if any, extends the greater distance to the northwest?

Mr. Mills—That is objected to as immaterial.

A. You mean which of the two definitely located shore-lines—

Q. Yes.

A. —can be followed further to the northwest?

Mr. Lewers—That is the question.

A. That would be a difficult question to answer. As far as I know now, the best means of locating these shore-lines or following them out is the outcop of sands that were of shore origin. I can follow the sandy beds at the base of the Etchegoin further to the northwest than I can those of the Santa Margarita.

Q. What is the character of these sands? What are they?

A. They are chiefly granitic and sands derived from metamorphic rock—crystalline rocks.

Q. And where is there any evidence of granite that might be the origin of that sort of sand?

A. As I stated yesterday, the only source of granite debris of which I have any knowledge is in Pine Mountain, which lies to the south of the Kern Basin.

Q. And what was the thickness of the Etchegoin

sands that you found revealed along the Temblor Range?

Mr. Mills—I think that was fully gone into at the session [1979] yesterday, and I object to it on the ground that it is a burdensome reduplication of this record.

A. The Etchegoin formation, as I stated yesterday, has a thickness of from 800 to 900 feet. The oil-sands proper that are contained in the Etchegoin are much thinner. I do not now recall any outcrop of oil-sands that exceed 40 feet in thickness. That was about the thickest that I believe was shown in any of the logs of the wells.

Mr. Mills—I object to that statement again as a purposely intended evasion of the ordinary rules of evidence. It is hearsay, as most of this testimony is, and I don't think counsel should persist in putting in hearsay evidences in this case.

Mr. Lewers—If you make your objections and complete it without further remarks, we will save time.

Q. Mr. Anderson, what data is used by geologists in making an examination of a territory like that in the effort to determine the geological formations—directing your attention particularly to works that have been done by man in connection with them?

A. The geologist uses all trustworthy data that he can collect, of course. Naturally, data that he finds for himself in the outcrops and formations, data that are furnished by any work or excavation or drilling,

and observations made by other geologists in work that he considers creditable, and the facts furnished by observers other than geologists whose testimony or statements he considers creditable.

Q. Is any use made of well logs?

A. Certainly.

Q. I understood you to say yesterday that the Tulare formation was deposited during a fresh water interval. Is that correct?

A. Yes; during an interval of fresh water conditions. **[1980]**

Q. Would you expect the formation of oil during fresh water conditions?

A. I do not know of any oil deposits that are derived from fresh water beds.

Q. Prior to 1905, that is, in the early development and history of that West Side country, do you know what the general belief was amongst geologists and others concerning the occurrence of salt water at any depth?

A. It was generally believed that the finding of salt water in the wells or formations ended any hope of finding oil; that when you reached the level of salt water you had passed any hope of finding oil, the idea being that salt water underlies the oil formations or oil horizons.

Q. Was there any general or current belief at that time as to the depth below sea level at which that water would be encountered in the interior of the valley?

A. Yes; there was a general belief that at a depth of 1200 or 1500 feet below sea level no oil would be found, but that this water, the salt water, would be encountered.

Q. Now, going back to your more recent visits to that country, particularly in 1911 and 1912, prior to the time you went there in 1911 had you been in that West Side country at all? Say during 1909 and 1910?

A. Yes; I was repeatedly in that country. I can't tell you when, but I was repeatedly there during those years.

Q. What, if you know, caused the activity in the Elk Hills that you have mentioned as existing when you were there in 1911? What influences?

A. I think that the activity was largely in response to two or three causes; One was the increased price of oil. The price of oil went up materially soon after 1907 or beginning, perhaps, in 1907. During 1908 oil brought a very good price, [1981] and also the year following. That naturally stimulated prospecting and the locating of lands and acquiring locations of lands generally. Also, I think, the extension of the Sunset Western Railway up into the Midway Valley stimulated activity to a great extent. Then, also, the drilling of the Honolulu well in Section 10, 32-34, was a factor that stimulated activity in the Elk Hills. Also the publication of Bulletin 406 in which statements were made to the effect that oil would be found along the axis of the hills at a depth—

Mr. Mills—I object to what the bulletin states. The bulletin is in evidence and speaks for itself.

A. —at a depth of from 900 to 1400 feet, and varied within the limits of the Elk Hills within a depth of 2000 feet.

Mr. Mills—That is further objected to for the reason that the witness has erroneously stated what the bulletin states.

A. You say the bulletin is in evidence.

Mr. Mills—Yes sir. The bulletin is in evidence.

Mr. Lewers—I think you will find that statement there, Mr. Mills.

Q. Now, when was it that the Honolulu well showed favorable signs, and what were they?

A. I believe it was in July, 1909, that an enormous flow of gas was struck in this well, and this gas was interpreted to be a very favorable indication of oil underlying the stratum from which the gas came.

Q. At what depth was that gas found?

A. 1660 feet, as I recall it.

Q. Do you remember when oil was encountered in that well?

A. I think oil was found in the early part of 1910. I will state, if you wish, that I measured the flow of gas from that well.

Q. When was that? **[1982]**

A. Well, it was within a few days after the gas began flowing from the well.

Q. Did you make any expert examination of that territory at that time?

A. Yes; I did.

Q. From whom?

A. You mean after this gas was struck?

Q. Yes. I am referring to the vicinity of where that gas was struck.

A. I was not asked to do it by anybody particularly. I did it out of my own interest in the matter.

Q. Had you at any time previous to that done it for any individual?

A. Yes; I had.

Q. When was that and for whom?

A. I made a report on this land—several sections included within Township 32-24—and my report went to William Matson.

Q. And when was that report made?

A. It was made about August, 1908.

Q. Now, in connection with your investigations in there in 1911, in the Elk Hills, did you at that time make any examination of any of the logs of the wells that were in there at that time?

A. Yes.

Q. And did you at that time make any investigations as to the occurrence of gas in any of those wells?

A. Yes; I noted that the logs showed gas, and I saw one or two wells from which gas had been issuing, particularly the Redlands and the Scottish Oil Fields Limited. Both had reached gas at that time.

Q. What did that gas indicate to you at that time?

[1983]

A. It did not indicate very much except that gas was coming from the wells.

Q. Were you able to determine in any way what kind of gas it was?

A. I did not investigate the gas to determine the character of the gas. It was no surprise to me that gas should come from the wells.

Q. Why not?

A. I did not have any opportunity of getting any of the gas or analyzing it.

Q. You say it was no surprise to you. What do you mean by that?

A. Gas in the comparatively limited quantities that these wells were making might be found anywhere in these formations either in the Tulare or in the Etchegoin or in the Santa Margarita.

Q. Due to what?

A. Due to the fact that these formations are all more or less organic in character and that the organic material contained in these beds might give rise to accumulations of gas.

Q. Would that be petroleum gas?

A. Not necessarily. The same organic material—

Mr. Mills—I object to this statement as a volunteer statement not responsive to the question. The question has been answered.

Mr. Lewers—The question has not yet been answered. You may complete your answer.

Mr. Mills—Read the question and see whether it has or not. (The reporter reads the question and answer.) That does not call for a dissertation.

Q. By Mr. Lewers—Complete your answer.

A. I was simply making an explanation as to why I said, **[1984]** "Not necessarily." The same organic material from which petroleum might be derived under some circumstances might furnish only gas. Under some conditions only gas is derived from these organic materials.

Q. When you were in there in 1903 and 1904 in the vicinity of McKittrick, did you have any knowledge of gas being discovered in any of those wells?

A. In which wells?

Q. Anywhere in that country.

A. In the oil-wells?

Q. Anywhere in that country. Yes.

A. Oh, yes. All of the oil-wells do make gas.

Q. Was that gas considered in 1903 and '04 as something that was to be desired, or what was it?

Mr. Mills—Considered by whom?

Mr. Lewers—Anybody.

Mr. Mills—It is rather vague and indefinite. Let us know whom you mean.

M. Lewers—Well, oil men, then, if you want to know, or geologoists.

A. If you wish to know in what way I considered this gas important or unimportant, I will have to say that it depends on circumstances and the conditions under which it is found. To illustrate, I will state that the gas that came from many of the oil-wells was used locally as fuel on the leases from which the gas came. There were other circumstances in which the

gas was considered decidedly objectionable and as a matter presenting some difficulty to be overcome, and it was a serious obstacle to further drilling. For instance, there was a well drilled on the Buena Vista Hills north of McKittrick—

Q. Buena Vista Hills?

A. Did I say the Buena Vista Hills? **[1985]**

Q. Yes.

A. The McKittrick Hills north of the town of McKittrick on Section 16—The Fearless well—in which there was a violent outburst of gas that partly destroyed the derrick and threw out sand with such violence as to seriously damage the machinery and the drilling lines and other apparatus, and threw out boulders, and finally filled the well up with sand and choked off the flow. And the well never was recovered. The well was abandoned. This gas was not considered in a favorable light but decidedly unfavorable.

Q. Now, at the time you went in there in 1911 into the Elk Hills, did you see what has been referred to here sometimes as a gas blow-out and sometimes as and oil seepage, in Section 32 of Township 30-24?

A. I didn't see this in 1911.

Q. When did you see it?

A. When did I see this spot that was called the gas blow-out?

Q. Yes.

A. In Section 32?

Q. Of 30-24.

A. I saw that first in November, 1912.

Q. What is that, in your opinion?

A. A gas seepage.

Q. Describe further. What kind of a gas seepage?

A. It is a gas seepage or, perhaps, more than one gas seepage in the slope of the hill and from the sides of the canyon at this point in Section 32. The outcrop as I saw it consisted of brownish stain or a series of brownish stains on the slope of the hill, and by digging into it we found some sand stained brown, containing crystals of sulphur. It had a peculiar fetid odor. The material was dug out with a hand-pick [1986] and it was warm and showed more than the atmospheric temperature and showed a little moisture. These spots were not extensive. They seem to be all distributed on one level or approximately along one level, and represented the outcrop of a dissected stratum that lay horizontally across the canyon—that had been dissected by the canyon.

Q. Did you reach any conclusion as to the character of that deposit and of the gas?

A. Yes.

Q. What was that conclusion?

A. This deposit was one of many that I have seen of the same kind. It was representative of a class of deposits or class of outcrops that I have seen about the McKittrick and Sunset and Buena Vista Hills and Lost Hills. The gas is hydrocarbon gas and partly sulphuretted hydrogen gas.

Q. Is it petroleum gas?

A. Not necessarily. I don't believe that the gas issuing from the ground in any of these places is derived from petroleum, but from the organic shales that crop out. I don't believe it has any direct connection, or, in fact, any connection whatever with the occurrence of petroleum anywhere. My interpretation is that the gas is derived from the shales and from the strata that crop out on the surface and belong to that level.

Q. What kind of gas would you call it?

A. There is largely, I think, methane gas.

Q. What is the common name of that?

A. Marsh gas.

Q. How do you account for the sulphur?

A. The sulphur found in the sand in these outcrops is from the sulphuretted hydrogen gas.

Q. What is the origin of that, if you know?

A. That is derived from hydrocarbon gas, and it might **[1987]** come from marsh gas or methane. If you want me to state what the accepted view is as to its origin—is that what you are after?

Q. Yes. What conclusion or determination did you reach as to its origin. I wish you to explain fully.

A. The accepted view of the origin of this sulphuretted hydrogen gas is that marsh gas or any hydrocarbon gas, when it comes in contact with sulphates in the formations—any kind of sulphates, soluble or insoluble (even gysum, which is a calcium sulphate and insoluble)—when the hydrocarbon gas comes in contact with the sulphate there is a reaction

takes place in which there is a development of sulphuretted hydrogen. Without stopping to explain all of the chemical process, which would be complicated, that is the essential fact as far as this question is concerned: That there is evolved under these circumstances a sulphuretted hydrogen gas that follows along with the hydrocarbon gas or marsh gas wherever it might progress.

Mr. Mills—I want to move to have the entire answer to the last question stricken as a useless reiteration of the witness's answer to the first question, and that there is nothing new added, and it is useless matter.

Q. You spoke of this deposit, when being dug into, as showing a higher temperature than the atmospheric temperature. How do you account for that?

A. The increased temperature is accounted for by the chemical reaction that takes place in the exposure, or immediately below the surface, resulting from the decomposition of the sulphuretic hydrogen gas, commonly known as H^2 S gas.

Q. Did you make any test of that to determine whether it contained petroleum or indicated petroleum, in any way?

A. Yes; I made a test of the sandy material that I collected at this Point of Section 32. **[1988]**

Q. And what test did you make?

A. I tested it with chloroform and with benzine and with other reagents.

Q. And what results did you get?

A. The benzine and chloroform showed no results whatever, that is to say, they showed no evidences of the sand containing any asphaltum at all. The other solvent was a solvent the composition of which I don't know because it was a secret reagent, that is to say, it was something proprietary or secret—not proprietary, but a secret test, and I don't know; I don't even now know the name of the solvent. These experiments were tried in the office of Dr. Stark, of the Standard Oil Company, and this was a solvent that he had furnished and told me the name of, which I don't now recall. He told me something—

Mr. Mills—Now, I will have to object to this hearsay testimony. I don't see why you insist on putting that sort of testimony in.

Q. By Mr. Lewers—Never mind what he told you about it, But what result did it show?

A. It showed a dark stain in the solution. Now, I was unable to say what this dark stain indicated. The other solvents hadn't shown any such stain, and I can only state What interpretation Dr. Stark gave it.

Q. Well, that, of course, will have to be given by him. And what is the chloroform test and the benzine test usually used for—to determine what fact?

A. To determine if there is asphaltum in the substance which you test, or petroleum residue of any kind.

Q. And as the result of the use of those tests, what conclusion did you reach as to the petroleum character of that deposit?

Mr. Mills—I shall object to that question and answer, [1989] excepting as limited to the use of reagents which are known to the witness.

Mr. Lewers—I am perfectly willing to limit it to the use of reagents that were known to you.

A. My conclusions were that the tests were entirely negative; that is to say, it showed no evidence of this material containing any bituminous matter whatever.

Q. Are those deposits there oil seepages?

A. They are not.

Q. Are they asphaltum deposits?

A. They are not.

A. Are they petroleum gas blow-outs?

A. I can't say that they are, and I do not believe that they are.

A. Now, in your testimony yesterday, you spoke of having seen large deposits of what you and Mr. Owen concluded were asphaltum, in the Buena Vista Hills. Were they different from this particular deposit you have been describing?

A. Different chiefly in quantity and magnitude of outcrop.

Q. Well, are they asphaltum deposits?

A. I think they are not.

Q. Well, when did you reach that conclusion?

A. I reached that conclusion as early as 1910. I will state further that when I first saw these deposits in 1903 I took them to be asphalt deposits, and so stated, and I believed them to be asphalt deposits, and at the time of my visit there in 1908 I still believed

they were asphalt deposits, although I was unable to find any positive proof that they were deposits of asphaltum.

Mr. Mills—What section was this on that you are referring to now?

Mr. Lewers—In the Buena Vista Hills. **[1990]**

Mr. Mills—There are two sections he referred to.

Q. By Mr. Lewers—What sections are you referring to now?

A. Well, Sections 11 and 15.

Mr. Mills—You spoke of Section 10 in your direct testimony.

Mr. Lewers—11, I think it was. Wells in 10.

A. The well that was drilled there was in 10, but these asphaltum, or so-called asphaltum, deposits I think are not on 10.

Q. You may complete your answer.

A. The fact that I was unable to find any positive proof of these deposits containing asphaltum aroused my suspicions, and I have thought often and seriously about the fact that while superficially they resembled asphaltic residues; there was no asphaltum that could positively be found in the material. I never was able to detect any by the use of such reagents as benzine and chloroform.

Mr. Mills—Now, let us have the question again, I don't know whether this is responsive to the question or not.

Mr. Lewers—I think it is.

Mr. Mills—If it is, I will not object. Just read it to me, please.

Q. By Mr. Lewers—To save time: What further investigation did you make in that connection.

A. In 1910 I visited this locality in company with Robert Moran, and we stayed all night at the camp of the Honolulu Oil Company on Section 10. We came in from Maricopa in the afternoon.

Mr. Mills—Now, I object to all this long preliminary.

The Witness—It will not be long.

Mr. Mills—The question is, What further investigation did you make? Not what hotel you put up at. I think the record is unnecessarily long.

Mr. Lewers—A good part of the length is due to the remarks of counsel. **[1991]**

A. (Continuing) I showed these deposits to Robert Moran, and in answer to his—

Q. Well, don't tell any conversation between you. That would be hearsay.

A. All right. I don't care to prolong this discussion at all, only to add some substantial details that I feel are important. I have not finished my statement. In company with Mr. Moran I made an experiment there on the ground to prove to him that there were seepages of gas at this point.

Q. By Mr. Mills—Which proved to him, you say?

Mr. Lewers—"To prove to him."

A. To prove to him that there were positive seepages of gas at these outcrops.

Q. Briefly, what was that experiment?

A. We went down to these outcrops after dark with a crowbar and drove the crowbar down in to the ground at a number of different points in the immediate vicinity of these out-crops; and, although we drove the crowbar down to the depth of only two feet in any case, when we would pull the crowbar out and leave an open hole we could touch a match to the point and get a gas flame that blazed continuously for some minutes until the wind blew it out—blazed up to the height of a foot or more. The flow of gas continued indefinitely. I don't know how long the flow would continue, but there was a little breeze blowing and the wind blew the flame out.

Q. Have you ever seen marsh-gas burn in that way?

A. Yes.

Mr. Mills—That is objected to as immaterial; and I move that the answer be stricken out. A great many gases will burn that way, possibly.

Mr. Lewers—Some kinds won't.

Mr. Mills—Petroleum gas will burn that way.

[1992]

Q. By Mr. Lewers—In your opinion, did those deposits on the Buena Vista Hills have any connection with the petroleum deposits that have been found there?

A. I am convinced that these deposits of so-called asphaltum of the Buena Vista Hills are not deposits of asphaltum and have no connection with petroleum.

Q. Mr. Anderson, have you made any examination of the logs of the various wells in the Elk Hills that were introduced in evidence here day before yesterday?

A. Yes; I have examined them thoroughly.

Q. Now, what do those logs show to you, as a geologist, concerning the character of the formation in the Elk Hills, as to shale, mud, sand and whatever may be indicated?

Mr. Mills—Now, I want to interpose this objection—that these logs have not been properly introduced into evidence in this case for general purposes. It is barely possible that they might be received by the court as testing the accuracy of the Exhibit No. 16, introduced by the defendants, but not for any general purpose. The matter is all hearsay, as testified to by the witness Luke, and even in respect of following the hearsay testimony the map introduced does not conform to the hearsay. And I shall object to any reference being made to these logs, or alleged copies of logs, for any general purpose in the case. I shall not object to their reception for the purpose of testing the accuracy of the map on which it is alleged to be based, but any reference to these logs for general purposes in the case certainly is incompetent, irrelevant, and highly improper, as no proper foundation has been laid for their introduction.

Mr. Lewers—I will consent that that objection be considered as made, without repetition, to all questions of a similar kind, based upon those logs?

A. The logs indicate and show pretty conclusively that [1993] the formations passed through are very largely of the character of muds and clays, and sometimes a little shale, and occasionally thin streaks of sand. It is about the condition that I had anticipated in the formation—that they were largely if not entirely of the character of mud and clays, containing sparing amounts of organic matter.

Q. Now, in a number of those logs reference is made to showings of gas, gas sands, and so forth. What does that indicate to you as a geologist, assuming that those statements are correct as they appear in the logs as introduced in evidence?

Mr. Mills—Well, I want to object, further, to the designation of these papers as logs. They are not testified to as logs, but copies—alleged copies—of original logs furnished by the Associated Oil Company, and cannot in any sense be described as "logs" in this case.

A. These occurrences of gas indicate to me that the muds and clays and the formations composed of them were to some extent organic, and that there were little deposits of gas involved in these strata that were derived from the immediate vicinity of the well and from the levels and horizons in which the gas was found.

Q. Well, in your opinion, does that gas have any connection with deposits of petroleum lying deeper down?

A. Not necessarily at all.

Q. Why not?

A. For the reason that the organic materials in these strata might as readily evolve only gas as petroleum. It does not necessarily follow that because there is gas in the formations there is petroleum there at all. Gas is far more widely distributed in these formations than petroleum is; and for the reason that the organic contents of the strata may as readily evolve only gas and not petroleum. **[1994]**

Q. Do you know what the price of oil was in 1903 and '04 in the vicinity of McKittrick, Mr. Anderson?

A. I have a general recollection of the price of oil during those years; yes.

Q. What was it?

A. Why, it was from fifteen to twenty-five cents a barrel, for fuel oil.

Q. Now, taking Exhibit No. 16 as the basis for the question, and assuming that there are within what may properly be termed the limits of the Elk Hills, forty wells, varying in depth from 500 feet to 4850 feet, and that these wells were sunk partly by one company and partly by others, have you, as a result of your experience and observation in connection with the oil fields, been able to compile any data as to the cost, average cost, of sinking wells of various depths, Mr. Anderson?

A. Yes.

Q. From what data or experience have you compiled this information as to the cost of sinking wells?

Mr. Mills—I object to this question for its immateriality, because it has no bearing at all upon the issue as to whether the Southern Pacific Railroad

Company selected and obtained patents for the lands in this suit by fraudulent misrepresentation as to their character. The question is further objected to on the ground that it erroneously states the contents of the exhibit. The exhibit shows that the number of wells at that depth is thirty-one instead of forty.

Q. By Mr. Lewers—The concrete question that I desired to get at now, Mr. Anderson, is whether you have compiled data showing the cost of wells, and what is the basis of that data.

A. I have compiled some data. And the basis of the data that I have compiled is partly my acquaintance with the costs of drilling in the valley fields in general and partly from my **[1995]** intimate acquaintance with these costs as shown in the auditor's accounts—auditor of the Kern Trading and Oil Company and of the Associated Oil Company and of other companies.

Q. By Mr. Mills—Let me ask you the question, Have you ascertained from the owners of these wells as to which you are called upon to testify now, the actual cost, in each instance, of every well in the Elk Hills?

A. No.

Mr. Mills—Then I have a further objection, that the data is incomplete and speculative, and not based on any facts.

A. The statement that I wish to make now—

Mr. Mills—Well, I object to these volunteer statements of the witness that he continually throws into this record.

Mr. Lewers—His answer is perfectly responsive. You may have forgotten that you interrupted in the middle of his answer.

Mr. Mills—Well, I interrupted for the purpose of introducing what I regard as a valid objection.

Mr. Lewers—I know.

Mr. Mills—You are calling now for a speculation on the part of the witness, based upon no ascertainable facts at all.

Mr. Lewers—I am not.

Mr. Mills—And, moreover, it would be hearsay even if he got it from the auditor of the Kern Trading and Oil Company or the Associated Oil Company. There has been no opportunity offered us to cross-examine the auditor of these two companies, or the persons who sunk those wells, as to the actual cost, and what is overhead expense and what is actual drilling expense. It is tantamount to trying this case by affidavits.

Mr. Lewers—You are unnecessarily alarmed. That is not what we are after at all.

Mr. Mills—I am not alarmed at all. The only thing is **[1996]** that I am objecting to this because I don't regard it as material, and as encumbering the record. But, even if material, the proper foundation is not laid. You bring a man in here as a witness and ask him to furnish data, in the form of a summary, which he has gathered up running around different offices—of the Kern Trading and Oil Company and other offices.

Q. By Mr. Lewers—Now, what is the average

cost, as you have determined it, of sinking wells of varying depths in the valley oil fields?

Mr. Mills—That is objected to, on the ground that the witness has not been qualified to answer the question, and, if answered, the answer would be purely hearsay or speculative.

A. The average cost of drilling wells in the valley fields may be stated about thus: Wells less than 1200 feet in depth usually cost about $10 a foot. Wells from 1200 to 2000 feet in depth usually cost about $12 a foot. Wells from 2000 feet in depth to 2500 feet in depth cost $13 a foot.

Q. By Mr. Mills—What are you reading from, Mr. Anderson?

A. Please let me finish this. It is only a little.

Mr. Mills—Let is appear in the record that the witness is reading from some voluminous typewritten sheet, which is not explained.

Q. By Mr. Lewers—Is that a memorandum prepared by yourself, Mr. Anderson.

A. This is a memorandum, prepared by myself, of facts that I have ascertained in the course of my experience.

Mr. Wells—Well, I shall object, further, that the witness is now testifying from some documents in his hand, which have not been submitted to me for examination.

Q. By Mr. Lewers—You may proceed.

A. Wells varying from 2500 to 3000 feet in depth cost $14 a foot. Wells from 3000 feet to 3800 feet in depth cost $15 a [1997] foot.

Q. Now, in that connection, Mr. Anderson, when you take that last item of $15. a foot, do you mean $15 from 3000 to 3800, or $15 for each and every foot of the total depth?

A. I mean $15 a foot for every foot of well. The cost per foot increases rapidly with the depth of the well.

Q. Now, do you know a well known as well No. 11, at Coalinga, a well belonging to the Kern Trading and Oil Company, 2700 feet deep?

A. There is a well No. 11 on Section 35, Township 19-15, at Coalinga, that is 2700 feet deep.

Q. Do you know the cost of that well?

Mr. Mills—Now, that is objected to, specifically, in addition to the other objections already made, unless the witness gives the cost of each well in the Coalinga gield.

Q. By Mr. Lewers—You may answer. Do you know the cost of that well?

A. Yes.

Q. What is it?

A. It cost $39,802.77.

Q. And how much is that per foot?

A. By calculation, that is $14.73 per foot.

Q. Now, do you know another well there known as well No. 13, in the same township?

Mr. Mills—The same objection, that the witness is compiling—offering evidence of data compiled from two or three instances, without giving the cost of every well in the district, and for the further reason that he does not give the basis of his information

so that we may ascertain whether it is accurate or not.

Q. By Mr. Lewers—You may answer.

A. Well No. 13, on Section 35, Township 19-15, Coalinga [1998] district, owned by the Kern Trading and Oil Company. feet deep, and cost an aggregate of $47,794, making an average cost, per foot, of $17.02.

Q. Why did you select those two wells as examples?

A. I selected these two wells because they are representative wells in this district and fairly represent the cost of drilling in this district and in no way are exceptional in their costs, having had no serious accidents and no superfluous expenditures on account of accidents.

Mr. Mills—Now, let me interrupt long enough to ask a couple of questions, Mr. Lewers:

Q. Did you drill these wells yourself that you just testified about?

A. I did not.

Q. Did you pay out the money yourself?

A. I did not.

Q. Do you know, of your own knowledge, without what you have heard from hearsay, what the cost of these wells was?

A. I asked for—

Q. Now, I just asked you a question: Do you know it of your own knowledge, without getting it from some statement of some one else?

A. No.

Mr. Mills—Then I move that all the testimony in regard to those wells be stricken out; and for the further reason that it appears by the testimony of the witness that they are located many miles distant from the lands in this suit, where the conditions are not shown to be analogous in any way so that any comparison could be made.

Q. By Mr. Lewers—Now, Mr. Anderson, do you know what the going schedule of prices for oil in 1912 and 1913 is?

A. Yes. **[1999]**

Q. What companies are buyers of oil in the California fields at the present time, to your knowledge?

Mr. Mills—That is objected to as wholly immaterial.

A. The Standard Oil Company, the Associated Oil Company, and the General Petroleum Company, and others?

Q. By Mr. Lewers—Have you collected data as to the prices now prevailing in the oil market in California for oil of different gravities?

A. Yes.

Q. Have you prepared, Mr. Anderson, any summary or table containing the information as to the cost of drilling wells of varying depths that you have just given and also a schedule of prices that are prevailing now for differing degrees of gravity of oil, together with a statement of the price that prevailed in 1904, for oil?

A. Yes.

Q. Will you produce that statement?

A. Yes. (Produced)

Q. Is that the original of the statement you refer to?

A. Yes.

Mr. Lewers—We offer this in evidence, as illustrative of the testimony of the witness.

Mr. Mills—Do you mean to say that you offer here in evidence, without showing how this data was collected, the sources of information so that we may be able to test the accuracy of it, a summary made by this witness, without any further qualification?

Mr. Lewers—The offer has been made.

Mr. Mills—Well, it is objected to, on the ground that it has not been shown that this witness has any definite information on the subject, and it does not give the sources of his information, and for the further reason that the matter is wholly [2000] irrelevant and immaterial to any of the issues in the case. This is a similar offer to your offer of the alleged copies of these alleged logs of wells, to escape the necessity of putting on the stand officers of the Associated Oil Company—for fear of cross-examination, in my opinion.

The statement last referred to and offered in evidence is marked "Defendants' Exhibit 21—L.L.", and is as follows:

Developments and Appearances in Elk Hills.

Number of wells drilled in Elk Hills.....40

Depth of drilling .....500-4850 feet

Cost of drilling in Elk Hills:

Average cost of wells:

Under 1200′	$10.00	per ft.
1200-2000	12.00	"
2000-2500	13.00	"
2500-3000	14.00	"
3000-3800	15.00	"

K. T. & O. Co.

No. 11. 35-A Coalinga (2700′
$14.73 per ft. ($39,802.77

No. 13. Coalinga 35-A (2808′
$17.02 per ft. ($47.794

Schedule of oil prices at present (1912-1913)

A. O. Co. prices	*Standard Oil Co.*
12° - 18° 30c	21° - 25° 50c
18° - 22° 35c	25° - 30° 65c
22° - 25° 45c	30° - 35° 80c
25° - 35° 50c	

Prices of fuel oil in 1904 ranged from 25c per Barrel to 15 cents per barrel. **[2001]**

Q. By Mr. Lewers—Mr. Anderson, have you ever made any calculation, based upon your experience and observation of the operation of producing oil-wells, as to the percentage or rate of decline in production of the average California oil-wells?

A. Yes.

Q. How did you arrive at that?

A. While I was in the geological department of the Southern Pacific Company one of my duties was to gather statistics of production and to compile tables

and curves representing data of production, including the rate of decline in the production of producing wells through given periods of time; also, in my work in connection with the Crocker Oil companies, I have compiles similar data, showing the rate of decline in the production of producing wells over given periods of time.

Q. Were you able to reach, from this data, any general conclusions that would be applicable to the average wells?

A. Yes.

Q. And do you know whether or not any similar work has been carried on by others?

A. I do.

Q. By whom?

A. Similar work has been carried on by the Associated Oil Company and by various superintendents and managers. Mr. Markriqua—

Mr. Mills—I obect to that statement of the witness, as immaterial. I ask that the objection of immateriality be extended to all of this testimony.

Mr. Lewers—I will consent to that—without repetition.

Q. Now, Mr. Markriqua is connected with what company?

A. The Nevada Petroleum Company, Coalinga.

Q. Now, has anything he has been doing been along the same lines as your work? [2002]

A. Yes.

Q. Well, in doing that work with what is he connected, is what I want to get at.

A. He is connected with the Nevada Petroleum Company.

Q. But under the auspices of what organization?

A. Oh. I think he has some connection with the Commerce—

Q. Commonwealth?

A. Commonwealth Club, of San Francisco.

Q. And have you checked your work in any way with other work that is being done by others along the same line?

A. Yes.

Q. Now, have you prepared a table giving the results of your own investigations in this matter?

A. Yes.

Q. Is this paper which I show you the table which you refer to (handing paper to the witness)?

A. It is.

Mr. Lewers—We offer this in evidence, as illustrative of the witness's testimony.

Mr. Mills—Besides the objections for utter immateriality to this offer, it is further objectionable for the reason that it takes no account whatever of the thickness of oil-sands of different wells, nor of the fact that wells which have been known to have been brought in twenty or thirty years ago are still running without any decline, or of so-called "gushers" or spouting wells, and also that it takes no account of the different porosities of sands where the wells in the

California oil fields are located, and is, on its face, wholly untrustworthy as an exhibit for the purpose for which it is offered.

The table last referred to and offered in evidence is marked "Defendants' Exhibit 22—L. L.", and is as follows: **[2003]**

Rate of Decline in Production of California Oil Wells.

Loss	Percentage of Initial Prod. lost	Percent. of Init. Prod. Remain.	Average of Init. Prod.
1st year 33⅓%	33⅓%	67%	83⅓%
2nd year 25%	16⅔%	50%	53½%
3rd year 20%	10%	40%	45%
4th year 15%	6%	34%	37%
5th year 10%	3.4%	31.6%	33%
	69.4%		51.36%

After the first five years of production the rate of production is only 33% of the initial rate, and the average rate of production for this entire period is only 51.36% of the initial rate.

Q. By Mr. Lewers—Mr. Anderson, what sort of wells were taken into account in reaching these conclusions shown in this table?

A. Representative producing wells in California, and such wells as are found in the Kern River oil-field, and the McKittrick oil field; representative wells of these fields and other fields in the state. The table is designed to be representative of the average well in California.

Q. By Mr. Mills—May I ask whether you included the Lake View gusher, which has been testified to have brought in 10,000,000 barrels in a year?

A. Yes.

Q. In your table? [2004]

A. Yes.

Q. You put that in, did you?

A. Yes.

Mr. Lewers—And which has bankrupted the people who owned it.

The Witness—I would like to state— Well, it might not be considered responsive.

Mr. Mills—Well, you would like to state a great many things so far as that goes. Some of them material and some are not.

The Witness—May I ask a question without it being included in the record?

Mr. Lewers—Why, certainly.

The Witness—Well, it is in regard to the Lake View gusher.

Mr. Mills—Oh, well, let us not take up the time of the court.

Q. By Mr. Lewers—You have brought in that matter. What do you know about the Lake View gusher that Mr. Mills had referred to, which in any way would affect your table?

Mr. Mills—Let the record show the entire conversation. Mr. Examiner—show that this is a volunteer statement.

A. The rate of decline in the Lake View gusher

was very much greater than this table shows the average rate to be; probably three or four times the rate of decline.

Q. By Mr. Lewers—Well, is not that true, Mr. Anderson, of gushers in general?

A. It is.

Q. By Mr. Mills—Necessarily throws the average away down in your table?

A. No sir; it wouldn't.

Q. It wouldn't? Although the decline is greater it [2005] wouldn't affect the average?

A. It would greatly increase the rate of decline.

Mr. Mills—I say that. That is exactly what I say.

Q. By Mr. Lewers—Now, Mr. Anderson, assuming, for the purpose of the question, that you have a well, in the California oil fields—an average well—1800 feet deep, that has cost $20,000 to drill, and that that well is producing 150 barrels per day of 24 gravity oil. Have you been able, from your experience in connection with the sinking and operating of wells and your observations in the California oil fields, to reach any conclusions and to compile any data showing the cost of operating that well?

A. Yes.

Q. Assuming that it is not an unusual or unduly expensive well?

A. Yes.

Q. Where did you obtain that data?

A. This data was obtained partly from my general information as to the costs of operation, and the

details of the costs of operation, drawn from the records of auditors of companies operating.

Q. Was it based upon actual expenditures, so far as you were able to ascertain, in the oil fields?

A. Yes.

Q. Now, have you prepared a table showing these costs?

A. I have.

Q. Is this paper which I show you the table which you refer to?

A. Yes.

Mr. Lewers—Now, before questioning Mr. Anderson upon the details of that table, I offer it in evidence as illustrative of the testimony to be given in connection therewith. **[2006]**

Mr. Mills—Well, I suppose it is appropriate for me to examine this witness somewhat as to what he used in arriving at his table.

Mr. Lewers—Well, I was going to do the same thing.

Mr. Mills—I think that, ordinarily, would be done before you would make an offer.

Q. How many wells did you consider in making up this table which constitutes the offer of counsel?

A. Is this cross-examination?

Mr. Lewers—Yes, on the offer of introduction.

A. It is quite impossible for me to say how many wells I examined; but a very large number. It is the result of a long series of information.

Q. By Mr. Mills—What wells did you consider in making this statement?

A. This statement is representative of the average cost of operation.

Q. That is not the question. The question is, What wells did you consider in making the table?

A. About all the wells of which I had any records available.

Q. Does this table include pumping wells, or flowing wells, or both?

A. It includes pumping wells and flowing wells.

Q. And how many wells did you consider in making this table.

A. Well, I should say some thousands of wells.

Q. How many thousands?

A. Well, two or more.

Q. Two thousand?

A. Or more.

Q. Well, how many more? Three thousand? [2007]

A. I would not undertake to say further than that. I consider the statement representative of the average cost of wells in California.

Q. Well, I am not asking you that, Mr. Anderson. That is a matter your own counsel can bring out. Where did you get the information of these two thousand or more wells which you have used as a basis for this paper?

A. As I said before, my work in connection with the geological department of the Southern Pacific gave me such information. I interchanged information with the Oil Producers Agency, for one thing,

with the Associated Oil Company for another, and the Kern Trading and Oil Company, and others.

Q. This is not made up from your own personal knowledge, but from hearsay, entirely, isn't it?

A. It is from information furnished—official information furnished me.

Q. Hearsay information?

A. Official information furnished me.

Q. Well, did you include no other wells except the Southern Pacific Company wells, the Kern Trading and Oil Company wells, and the Associated Wells?

Mr. Lewers—He has already answered, a number of others.

A. I have already answered there were many others.

Q. By Mr. Mills—But it was all based on hearsay, was it not?

A. Official information.

Q. Well, was it based on hearsay?

A. It was based on official information.

Q. Will you answer my question Yes or No? Was it based on hearsay?

Mr. Lewers—Why, he has answered it.

A. That is a question for your interpretation. [2008]

Q. By Mr. Mills—You refuse and decline to answer whether this was based on hearsay evidence or not? Is that what you mean?

A. I don't know what you mean by "hearsay".

Q. You don't know what I mean by "hearsay"?

I mean, did you get this from your own personal knowledge or from something that some one told you? Now, do you understand me?

A. I got this from information furnished by official sources.

Q. Did you get it from hearsay or from your own personal knowledge?

Mr. Lewers—I object to this constant repetition of the question, which has been answered. It is purely a legal quibble that you are after. The answer indicates that he didn't get it from his own knowledge but got it from information furnished by others which he regarded, as he states it, as official information. You will call that "hearsay"; somebody else might not.

Q. By Mr. Mills—I have explained to the witness what I meant by "hearsay", and I will ask him now whether he will state that it was obtained by hearsay on your personal information.

A. You may interpret that as you like, Mr. Mills.

Q. You refuse to answer? Is that it?

A. I think I have given you a sufficient answer to that question.

Q. And you declined to answer the question, then?

A. I do not.

Mr. Lewers—I object to this repetition. The question has been answered. It is merely an attempt, and I do no not think exactly a fair attempt, to badger the witness.

Mr. Mills—I am not attempting to badger the wit-

ness, but I am showing the bias of the witness very clearly.

Q. You refuse to answer the question?

A. I do not refuse to answer the question. **[2009]**

Mr. Mills—We object to the offer, on the ground that the witness has refused to answer the question where he got his information, and the further objections assigned with reference to the other table.

The table last referred to and offered in evidence is marked "Defendants' Exhibit 23—L.L.", and is as follows:

Production costs for average wells.
1800′ $20,000. 150 bbls per day.
24° B.oil

Pumping	$0.032	per bbl
Pulling and tubing	.0155	"
Cleaning, etc.	.0126	"
Maint. and Repairs	.10	"
Handling, etc.	.0224	"
Storage) Insurance) Marketing)	.045	"
5% Interest (Average)	.0111	"
Net Cost	$0.2386	per barrel

24° Oil= $0.50 per bbl (Standard Schedule)
Net cost= .2386 "

Net gain .2614 without amort. charge.

The price of fuel oil in 1904 was 24¢, 20¢ and even 15¢ per barrel.

Q. By Mr. Lewers—Now, taking this table, which is now marked "Defendants' Exhibit 23", I notice you have charges here for pumping, pulling and tubing, cleaning, and so forth, maintenances and repairs, and then, "handling". What do you mean by the expression "Handling"? What do you include in that? **[2010]**

A. That item would include such expenditures as those for cleaning the oil from water and settlement and pumping it to temporary tanks or reservoirs.

Q. Does it include the transportation away from the property?

A. No. And the gauging of the oil, and making proper mixtures to bring the gravity to the required point, and so forth, according to the contract with the purchasing company.

Q. Now, I notice you have a charge of "interest". Interest upon what?

A. Interest upon the money invested in the drilling of the well, including labor and materials.

Q. Now, following that, after a summary as to the net cost per barrel, you have an item "Amortization", five years, 7.4 cents. Will you explain what is meant by that item?

A. I mean by that the charge to be made against the well for the recovery of the money invested in labor and materials and the process of drilling.

Q. Would that be what is commonly termed in other lines of business a sinking-fund?

A. Well, there might be sinking-funds for more

purposes than one, perhaps; but this is a sinking-fund for the recovery of the investment.

Q. Well, why have you fixed a period of five years?

A. Because that is the time within the limits of which a well should properly pay for itself, return all the money invested, with interest.

Q. Well, why do you say that? What is your basis for it?

A. Well, that is the average life of the well in the commercial sense. If a well cannot pay for itself in five years, generally it is considered a failure, that is, it is not profitable. **[2011]**

Q. Do you know whether that basis of five years is used by anybody else in reaching this result?

A. It is generally used by conservative operators everywhere.

Whereupon the further taking of testimony herein was adjourned until 1:30 o'clock P. M., at the same place.

On Thursday, February 21, 1913, at 2 o'clock P.M., the further taking of testimony herein was resumed pursuant to the adjournment: Willis N. Mills, Special Assistant Attorney-General, appearing on behalf of the plaintiff; and Charles R. Lewers, Esq., appearing on behalf of the defendants.

FRANK M. ANDERSON,

recalled, DIRECT EXAMINATION resumed.

By Mr. Lewers:

Q. Mr. Anderson, have you prepared a table giv-

ing data similar to that contained in Exhibit No. 23 that we have just been referring to, with reference to a well of the same depth costing $20,000, producing a hundred barrels a day of 24-gravity oil?

A. I have.

Q. Is this the paper which you referred to?

A. Yes.

Mr. Lewers—We offer this in evidence as Exhibit No. 24 of defendants.

Mr. Mills—Briefly, the objection is the same as to the other tables. There is no proper foundation, and for the other reasons assigned to the other exhibits.

The paper last referred to and offered in evidence is marked "Defendants' Exhibit No. 24—L.L.", and is as follows: **[2012]**

Production Costs for Average Wells

1800' depth; $20,000; 100 bls per day prod.

24° B Oil

Pumping	$ 0.032
Pulling and Tubing	.0155
Cleaning, etc.	.0126
Maint. and Repairs	.10
Handling product	.03
Storage)	
Insurance)	.045
Marketing)	
5% Interest (Average)	.0165
Net Cost	$0.2516 per bbl.

Amortization in 5 years ..... .1111

Total Cost .....$ 0.3627

24° B oil—$0.50 per bbl (Standard)

Net cost .2516

$0.2484 for amortization

The price of oil in 1904 was 25 cents, 20 cents, and 15 cents per bbl.

Q. By Mr. Lewers—Referring to the items of charge in there, such as the charge for pumping, did I understand you to say that that was figured as an average of all wells concerning which you have collected data?

A. It agrees with the data that I have and agrees with my calculations based on the wells of which I have information.

Q. Specifically, does that item of pumping include estimates made from wells that are pumped and gushers as well? That is what I want to get at.

A. Yes sir; it is the average cost of production, includ- **[2013]** ing—let me see if I get your question right.

Q. What I want to get at is, taking all this production cost, did you include gushers amongst the other in reaching your final estimate—and pumping wells?

A. There is a difficulty to be overcome here in this question. While that is a gusher at one interval or for a short time, it may very quickly become a

pumping well and it is hard to classify a well that way and to divide the wells into classes of gushing wells and pumping wells, except at a given moment. You see the difficulty, do you? This does include all of them, but I don't attempt in this answer to classify the wells into pumping wells and gushing wells as a permanent classification to the wells. The well might vary from one class to the other, but it includes the production of all wells and includes, therefore, gushing wells as well as pumping wells, because the gushing wells ultimately become pumping wells in nearly every case.

Q. How large a percentage of producing wells are gushers or remain so?

A. That is difficult to answer because there is no classification of wells that can be consistently followed through a term of years, dividing them into pumping wells and gushing wells. As I say, wells may be temporarily gushing wells. Now, if you take the proposition that at any one definite time the percentage of flowing wells or gushing wells is comparatively small—

Q. That is what I want to get at.

A. That is the case. The percentage of flowing or gushing wells is comparatively small.

Q. Now, Mr. Anderson, have you prepared a similar table—

Mr. Mills—Just a moment. You are passing now to another table?

Mr. Lewers—Yes sir. [2014]

Q. By Mr. Mills—Do I understand now from the

witness's statement that you do not include gushing wells as such in this table which has just been offered in evidence?

Mr. Lewers—I undertsood him to say all wells?

Mr. Mills—All wells which are on a pumping basis at some time, although they might have been gushing? Is that what you mean?

A. It includes all wells; the production cost of average wells; it is based on calculations including all the wells concerning which I had any information.

Q. You threw some doubt on the subject of the statement as to the gushing wells.

A. Temporarily, until I undertsood the full bearing of the question.

Q. Now, some territory in which there is considerable gas pressure and where the oil-sands are reached at a considerably greater than the average depth, is more likely to produce gushing wells than shallow territory, is it not? That is to say, in deep territory where there is heavy gas pressure you are more likely to find a gushing well than in shallow territory where there is not much gas pressure, in the California fields?

A. I think I understand you to mean that a well will gush when first brought in. Yes. That is to say, in deep territory the percentage of gushing wells is probably higher. That is, wells that do gush at some interval or at some time.

Q. And also gushers occur more generally in deeper territory than in shallow territory?

A. I attempted to say that the percentage of wells that gush for a period is greater in deep territory than in shallow territory. That answers your question.

Q. Your table is made up of all classes of territory —shallow and deep territory? **[2015]**

A. Yes sir.

Mr. Mills—I think it is further objectionable as applying to this case for the reason that the territory in dispute is known as a gassy, deep territory, and more likely to produce gushers than shallower territory.

A. I would like to state that the conditions of this particular table are set forth at the head; that this assumed well is 1800 feet in depth. Now, that is an average depth. It is assumed also that it cost $20,000 and produces a hundred barrels a day when it settles down so as to be called a regular production. This table is compiled upon the basis of such assumption.

Q. Do you take into account in the preparation of this table flowing wells which are not gushers? I mean flowing wells that flow.

A. Which are not spouters?

Q. Yes. Such as the Lake View, for instance. That would be called a gusher. There are wells which merely flow.

A. The Lake View is considerably more than 1800 feet in depth.

Q. Yes; but I am not discriminating as to the depth, but merely as to whether the well is only a flowing well and brings the oil to the surface.

A. I don't know of any way of defining or discriminating between a gushing well and a flowing well.

Q. I mean a well which for any reason does not require pumping at any period of its existence.

A. I don't know of any such well.

Q. You know of wells, don't you, that have flowed for a period of years and are flowing today and have been from the time they were brought in, without having ever been put on the pump. **[2016]**

A. Well, I have known of a well to flow for a period of more than one year.

Q. Don't you know of wells that flowed for a period of several years?

A. No; not in this state.

Q. In Coalinga?

A. No; I don't recall any instances of such wells.

Q. Is the data on which you prepared this table based on wells of only 1800-foot depth?

A. Of 1800 and approximately that depth. That is, 1800 feet was assumed as an average depth of the wells of California.

Q. When you say "average", you might get an average of 1800 by taking a well a thousand feet in depth and one which is 2600 feet in depth?

A. Yes; or I might take a well 600 feet in depth and one 3000 feet in depth.

Q. Is that the way you prepared that table—on data of that kind?

A. This is a well of average depth.

Q. That is, including the deepest wells and the shallowest wells—taking an average of the two extremes?

A. Yes sir. That is to say, I consider 1800 feet an average depth.

Q. I understand that. But I am getting at how you arrive at that average. You take the maximum and the least depth of all the wells that you examined and strike an average of 1800 feet?

A. That might amount to the same thing. The figure is taken by averaging the depth of the wells with which I am acquainted.

Q. No matter what they are, so long as the general average would be 1800 feet?

A. Yes. **[2017]**

Mr. Mills—I object to it again for the reason that it does not show what it purports to show. That is to say, what it is intended to show, viz: The data which has been collected from wells of 1800-foot depth.

Q. By Mr. Lewers—Now, Mr. Anderson, have you prepared a table showing similar data and estimates of a well 3600 feet deep, assumed to cost $60,000, and to produce a hundred barrels a day of 24-gravity oil?

A. I have.

Q. Is this the estimate that you refer to that I now show you?

A. Yes sir.

Mr. Lewers—We offer this in evidence.

Q. By Mr. Mills—Was this depth an average

depth struck by you from examination of wells of greater depth and those of lessor depth than that?

A. This is what it purports to be: The cost of wells of this given depth—the cost of production. It is the cost of average wells of this depth.

Q. That is, of this precise depth?

A. Approximately this depth. I won't say exactly 3600 feet, but that and the near neighborhood.

Q. Did you include wells in excess of 4000 feet?

A. No.

Q. Or wells of 3000 feet?

A. No.

Q. What wells did you take for the accumulation of this data?

A. I took the figures 3600 feet and used that to represent wells of this particular class.

Q. But what specific wells did you have in mind when you made this statement? **[2018]**

A. I won't say that I had any specific wells in view.

Q. That would be true as to all the other tables that have been introduced?

A. I don't know that it would.

Q. All the other tables introduced so far?

A. Not all the other tables; no.

Q. What other tables have been introduced which differ from that?

A. There have been several other tables produced which are not of this character.

Q. You have them in your hand, so that you can refer to them.

Q. By Mr. Lewers—Are you referring to the ones already introduced?

A. Yes sir.

Q. By Mr. Mills—What tables are they in which you had in mind specific wells?

A. I don't think that I had in mind specific wells in any of these tables.

Q. I misunderstood you, then, Mr. Anderson. It is true, then, that as to all of the tables which have thus far been prepared and introduced during your testimony, that you had no specific wells in mind at the time you made these tables?

A. I think I will have to modify my answer, now that I see more clearly what you mean, as I think I do. I assume this figure 3600 feet to meet conditions represented in three wells on the Elk Hills. That is, well No. 1 on Section 26 and well No. 3 on 24, of Township 30-23, and well No. 1 of Section 30, Township 30-24. Now, I won't say that this figure meets the conditions of those wells exactly, but approximately.

Q. And as to this particular table which has just now been offered headed "Production cost for deep wells 3600 feet depth [2019] and so forth," you took an assumed well which met the conditions of those three wells that you have named in the Elk Hills, sunk by the Associated Oil Company?

A. Yes; except that those wells are all deeper than 3600 feet and cost more than $60,000.

Q. That is, you don't mean to say you know what they cost, but you have heard that they cost more than that?

A. I have official information as to what they cost.

Q. What do you mean by "official information"?

A. Information obtained from the manager of the Associated Oil Company.

Q. That is, some official of the company?

A. Yes sir.

Q. Was it given to you for the purpose of making these tables?

A. I did not ask for it exactly for that purpose.

Q. Well, it was furnished you for that purpose?

A. I asked Mr. Henderson for a statement of facts, and he gave me the statement. However, the facts presented by Mr. Henderson's statement are not quoted in this sheet.

Q. Those three wells that you refer to as the basis of this offer, Mr. Anderson, have not been operated, to your knowledge?

A. Yes; they have been.

Q. Not further than to close them down after they spouted, have they?

A. Oh, yes; they were pumped. One of them was pumped for a year.

Q. What was the production of that well during that time?

Mr. Lewers—That is calling for hearsay testimony, Mr. Mills. If you want it, you may have it.

Q. By Mr. Mills—What is the production Mr. Henderson **[2020]** gave you?

A. Well No. 1, located on Section 26, 30-23, produced in September, 1911, 680 barrels; at the end of October—

Q. I don't care for the specific months.

A. —730 barrels—

Q. Just the summary.

Q. By Mr. Lewers—Give the summary.

A. And in the twelve months, including September, 1911, to August, 1912, it produced a total of 4074.15 barrels.

Q. By Mr. Mills—That is, the one on 26 of 30-23?

A. That is well No. 1 on Section 26.

Q. Was that well pumped or did it flow?

A. It was pumped.

Q. Was it pumped continuously during that year?

A. I couldn't say that it was pumped continuously.

Q. It was only pumped for a short interval?

A. I can't answer as to that.

Q. By Mr. Lewers—Give him Section 24 in Township 30.

Mr. Mills—I don't care for that.

Mr. Lewers—You called for all of them.

Mr. Mills—No; I did not. I asked whether those wells were operated, that is all. I will come to that when the proper time comes.

Mr. Lewers—I insist that the answer be completed. The question called for the information Mr. Henderson gave as to the production of those wells.

Mr. Mills—I asked for the information on Section 26 for specific reasons.

Mr. Lewers—I did not so understand it.

Mr. Mills—I certainly did. I have information that the data given Mr. Anderson by Mr. Henderson, as he claims, is entirely erroneous. **[2021]**

Mr. Lewers—I move that that be striken from the record as a volunteer statement of counsel not based on any evidence and not under oath. I don't care what information you have. We all get information that is unreliable.

Mr. Mills—Well, we have this information under oath.

M. Lewers—I happen to know what you are referring to, and it doesn't say anything of the kind.

Mr. Mills—Let the same general objection extend to this table as was made to the other tables.

Mr. Lewers—That is agreed.

The table last referred to and offered in evidence is marked "Defendants' Exhibit No. 25—L. L.", and is as follows:

Production Costs for deep wells.

3600′ depth; $60,000, 100 barrels per day.

24° B Oil

Pumping	$0.032 per bbl
Pulling and Tubing	.031
Cleaning, etc	.0252
Maintain, and Repairs	.12
Handling product	.03

Storage Insurance Marketing	.045
5% Interest (Average)	.05
Net Cost	$0.3332
Amortiz. in 5 years	.3333
	$0.6665

24° B oil=$0.50 per bbl (Standard)
Net Cost .3332

Net Gain $0.162/3 without amort.

36000 bbls per year at gain of 16 2/3 cents = $6000 per year gain. Will require ten years to retire debt of $60,000.

Fuel oil in 1904 was 25 cents, 20 cents and 15¢ per bbl. **[2022]**

Q. By Mr. Lewers—Now, Mr. Anderson, will you briefly explain what is meant by the figures in this Exhibit 25, on a well 3600 feet deep? That is, what deductions do you draw from those figures?

A. The net cost of production is 33-⅓ per barrel in wells of this character. That represents the average cost of production over the state of wells fulfilling this condition. This net cost of 33-⅓ cents per barrel does not include the charge for the retirement of the debt developed in process of drilling. The cost of that one item, figuring on the basis of amortization in five years, is 33-⅓ per barrel, making the aggregate cost per barrel 66-⅔ cents. Or, if we take

24 gravity oil worth 50 cents per barrel, which is the highest price now offered in the market, and deduct the net cost of 33-⅓ cents, we have a net gain of 16-⅔ cents per barrel without the charge for amortization. A well producing 100 barrels per day, if it does that continuously for 360 days in the year (which is unlikely) and the net gain per barrel is 16-⅔ cents, there is a yearly net gain of $6,000 which can be applied to the retirement of the debt. It will obviously then take to retire a debt of $60,000 ten years of production, which far exceeds the average life of the wells of California. That is the time that would be required for the well to pay for itself.

Q. Has that made any allowance for the ordinary laws of depreciation in production, or is it assumed that the 100 barrels per day will continue right straight through?

A. It is assumed that the 100 barrels a day will continue throughout the period of five years.

Q. Hasn't the latter portion where you figure $6,000 per year gain assumed that it will continue for ten years?

A. Yes sir.

Q. Is that a likely situation?]2023[

A. It is not. The average rate of decline, as stated in the table, would bring the average production considerably below this. As is shown in the table that was presented, representing the average rate of decline, the average production of a well for a period of five years is a little over 51 per cent of the initial production.

Q. Then, in order to have the average of 100 barrels per day during a period of ten years, it would have to start with a very much heavier production?

A. A very much larger initial production.

Q. Now, directing your attention specifically to well No. 3 in the southwest quarter of Section 24, 30-23—the Associated Oil Company's well—and assuming that that well produced oil in the month of June, 1912, amounting to 2965 barrels of 20 gravity oil, have you prepared any table, taking that production for the month of June that I have assumed as the average production of that well?

Mr. Mills—I object to that question and its answer for the reason that it is an assumption of fact not yet in evidence and not in accordance with the facts as known to this well.

Mr. Lewers—In answer to that, I will say that the first part of your objection under the present condition of the record is admitted to be good. But I will introduce evidence establishing that fact, that the production for the month of June, 1912, was 2965 barrels.

Mr. Mills—Will you introduce evidence from the books of the Associated Oil Company?

Mr. Lewers—I certainly will. And if the books do not contain it I will get somebody who knows.

A. By your permission, I will take a slightly more liberal assumption than that. I will assume that this well No. 3 in the southwest quarter of Section 24, 30-23, produced 3,000 barrels [2024] in the month of June, to make the calculation a little easier. That

means 100 barrels per day for thirty days. Allowing the well to produce at that rate for 360 days of the year, and assuming that this oil is worth fifty cents per barrel, which by the schedule is too high an allowance, as shown before in the previous table it would require ten years to retire the debt—that is, the cost of sinking the well.

Q. What are you assuming to be the cost?

A. $60,000.

Q. The same as your former well of 3600 feet?

A. Yes. This oil from well No. 3 on Section 24 was of 20 gravity, and by the schedule of prices it is worth 35 cents a barrel instead of 50 cents, while the net cost of production will be, as as calculated before, 33-1/3 cents a barrel. This will leave a net gain of 1-2/3 cents a barrel to be applied to the retirement of the debt. Now, I have not calculated the matter so as to determine the length of time it woud rquire for the recovery of this investment, but obviously it will exceed twenty-five years.

Q. Now, making a further assumption that this well No. 3 in Section 24 was pumped four months; that the average production was 900 barrels per month or 10800 barrels per year. What effect would that have on your calculations?

Mr. Mills—Let the same objection apply to all these questions where the facts are assumed that are not in evidence.

Mr. Lewers—That is agreeable.

A. This production that you mention, 900 barrels per month, would be 10800 barrels per year. This is

a little less than one-third of the former assumption and, as it requires the same number of employees to operate the well, and the same machinery, it would probably increase the cost per barrel three times. Obviously it would very greatly increase the cost of production [2025] and operation and make the well or the operation of the well utterly impractical and unprofitable. It could only be pumped at a loss.

Q. Would you advise the sinking of another well in that vicinity with that showing?

Mr. Mills—Objected to on the ground that it is incompetent because there is no evidence at all that those conditions exist.

Q. By Mr. Lewers—Have you prepared a table showing the data that you have just given in evidence concerning well No. 3 of this Section 24?

A. Yes; I have.

Mr. Lewers—I offer this table in evidence as "Defendants' Exhibit 26."

Mr. Mills—I object further to the introduction of this table, not only because it assumes facts not in evidence, but because there is an attempt made on the face of this offer to testify to facts by hearsay evidence—as to the actual production of certain wells in the Elk Hills.

Q. By Mr. Lewers—Will you add the words before the second paragraph, "assuming that"?

Mr. Lewers—I renew the offer with the modification by the words "assuming that" which should have been there before.

Mr. Mills—Then I withdrew the last objection and allow the former objection to stand.

The table last referred to and offered in evidence is marked "Defendants' Exhibit No. 26—L. L.", and is as follows: **[2026]**

Assuming the largest production from any of the Elk Hills Wells was from Well No. 3 Sec. 24, 2965 bbls in June 1912—20° B. Oil.

3600 bbls per year with oil at 50 cts. as shown before would require 10 years to retire debts.

This oil was only 20° B. or 35 cents oil.

Net Cost of production $0.33\frac{1}{3}$

Net gain per bbl..... $0.01\frac{2}{3}$

Assuming that Well No. 3 pumped 4 months and the average production was

900 bbls per month

= 10800 bbls per year.

This would be at greatly increased cost of production per bbl. and the average production would not remain as high as 900 bbls. per mo.

Q. By Mr. Lewers—Now, assuming, Mr. Anderson, that well No. 1 on Section 26, Township 30-23, produced oil of 36 degrees gravity and that twelve months' production from that well amounted in the aggregate to 4074.15 barrels, or a monthly average of 340 barrels. Have you prepared a table showing the amortization figures for that well with that assumption?

A. I have.

Mr. Lewers—I offer this table in evidence as Defendants' Exhibit 27. **[2027]**

Mr. Mills—We object to this offer for the reason that it assumes facts not now in evidence, in addition to the other objections to the former exhibits as to the immateriality and incompetency. For the further reason that it assumes that in all—and this objection goes to all the tables for the Elk Hills—that these wells had a steady production of a certain daily average, which is not proven and not in accordance with the facts.

Q. By Mr. Mills—Let me ask one general question: You don't know of your own knowledge, Mr. Anderson, as to any of the tables prepared for assumed conditions in the Elk Hills, in connection with the Associated wells to which you refer, just at what time the wells produced and at what times they were idle during a given year, do you?

Mr. Lewers—You mean does he know when the pumping was going on and when it was not?

Mr. Mills—Yes.

A. I do not.

Q. That is true of all of the wells?

A. Yes.

Q. In other words, that entire production may have come in in a very short interval or over a protracted period, for all you know?

A. I was unable to get—that is, I was not furnished—(I won't say I was unable to get)—but I was

not furnished with exact information as to the exact number of days the wells pumped each month.

Q. And if any one of the wells was closed down and not pumped for some reason not due to the fact that oil could not be taken from the well, these tables would have no application at all under the conditions that existed?

A. I won't say that. I won't admit that. I would like to say that this information as to the production was furnished [2028] me by both Mr. Henderson and Mr. King, who was the field superintendent of the Associated. I had some talk with Mr. King in regard to—

Q. I don't want to go into any of that, Mr. Anderson. My question is this: —

A. Of course, he can speak for himself.

Q. — If any one of these wells produced the entire quantity of oil which you have assumed for the year's production, in an interval of twenty days, and that well had been closed down for some reason not due to the fact that it was unproductive, your table would have no application?

A. Mr. Mills, your assumption states something that is not true, probably, and I wouldn't answer anything in regard to it.

Q. You yourself are indulging in assumption upon facts which you put on your table and which are not in evidence. Now, I say that assuming the entire production of any one of these wells had occupied an interval of less than thirty days, then you would say, would you not, that the tables would have

no application whatever to the actual conditions existing in the field?

A. I prefer to let that matter be answered by the showing of facts that will subsequently be presented.

Q. This goes to the competency of the exhibit itself now.

A. I prefer to let the matter rest that way.

Q. But I think I am entitled to an answer, Mr. Anderson, for the purpose of basing a possible objection to your table, and this is the time to get it.

A. You may make any objection or exception you please in regard to the presentation of those tables and the statement, and you can make it appear that you have a valid objection to the manner or contents of these tables, and it is your privilege to say so. **[2029]**

Q. That is what I am getting at. Now, assuming that the production on any one of these wells occupied an interval of twenty or thirty days for the entire production, instead of a production for the entire year, and that well was shut down by the Associated Oil Company for some reason not due to its unproductiveness or its inability to produce daily a like amount of oil, then wouldn't your tables be inapplicable as bearing upon any conditions actually existing in the Elk Hills?

A. No; I don't think so.

Q. Your production would be increased by a proportionate multiple left in the year?

A. Let me explain. A well might in the course of

one month be laid off for repairs for a number of days, and this, of course, would have to be reckoned with. Now, I don't know anything about the facts in the pumping of these wells. I understand that they made a serious effort—

Q. Just a moment. I don't want you in your explanation to inadvertently put in evidence which is incompetent. You don't want to do that yourself, do you?

A. No.

Mr. Lewers—Is this preliminary to an objection or is it cross-examination?

Mr. Mills—It is preliminary to a valid objection. Will you read that question again, Mr. Examiner? (The reporter reads question beginning at line 16 of the preceding page.)

A. I would have to think over that proposition awhile before I would be willing to answer it. I don't know what is involved and implied in your assumptions, and they seem to me to be contrary to the facts.

Q. You are assuming in your tables here an average production monthly. That is, that the well is pumped each month. Now, I say suppose that entire production came in during one [2030] month, and that from no fault of the well or its ability to produce it was closed down by its owners. Then you would see that the production would be twelve times as great for the year, wouldn't you, and your table would be inapplicable under those conditions, would it not?

A. I think you had better let the court decide that question.

Q. Are you not able to decide that yourself?

A. I may be after due consideration, but I am certainly not going to answer it at this moment.

Q. Well, will you answer this question: It would increase the production for the year twelve times what you have given it?

Mr. Lewers—That is, if you assume that it would continue to make that production.

Mr. Mills—I think that assumption is in the question: That it was closed down not for inability to produce the same amount of oil regularly.

Mr. Lewers—And you would assume that if continued for twelve months it would produce the amount produced in that one month for each of the twelve months?

Mr. Mills—Certainly.

Mr. Lewers—I didn't understand your question that way. I think that is obvious on the face of it—that it would increase by the multiple.

A. You are asking in regard to all these tables. If you will take one specific table and state definitely what your assumption is—

Q. By Mr. Mills—I will ask you to take any one of the wells.

Mr. Lewers—I object to this. It is obviously cross-examination on the substance and not preliminary, because the table is offered on the assumption made in the table. You are **[2031]** offering another assumption, which is cross-examination.

Mr. Mills—It is preliminary, Mr. Mills, to an objection which I desire to make.

Mr. Lewers—I don't think so. It is calling for another assumption which, of course, requires another table.

Mr. Mills—The witness has offered a table here—an average table for the year—upon the assumption that there is an average production daily of the oil from a certain well. Now, I ask him if the entire production or total amount of oil given in any one of these tables was brought in in one month, the tables would be inapplicable and unfair to the well.

A. I see the force of the assumption now. But you are assuming somewhat different conditions from those stated in the tables.

Q. By Mr. Mills—Yes.

A. The whole matter would have to be calculated on the basis of the assumptions which you make.

Q. Calculated upon the assumptions that I do make, your table—

A. These tables would not fulfill the conditions of your assumed data.

Mr. Mills—I object now on the ground that the data on which the tables were prepared are assumed for a daily production of a certain amount, which is not in accordance with the facts.

The table last referred to and offered in evidence is marked "Defendants' Exhibit 27—L.L.", and is as follows: **[2032]**

Assuming the following are facts:—

Well No. 1. Sec. 26, 30-23 produced oil of 36° B.
12 months production = 4074.15 bbls.
Monthly average = 340 bbls.
If this oil had a value of 90¢ per bbl.
and a net cost of 33⅓ per bbl

---

the net gain would be 56⅔ cents per bbl.
4074.15 bbls = $2308.68
2309.68) 60.000 (25.5 years for amortization

For amortization in 5 years
.56⅔) 12,000 (= 21.179 bbls
= 1.765 " per month.
actual prod. = 340 " " "
= less than ⅕ of required amount.

Q. By Mr. Lewers—This table, as I undrestand it, is based on the assumption that there was a production continuing during the twelve-month period each month?

A. Yes.

Q. Now, referring to well No. 1 located in the southwest quarter of Section 30, in 30-24, in the Elk Hills, and assuming that that well produced a total in eight months during which it was pumped of 2265.15 barrels of oil of 24 gravity; and assuming further that that well cost for labor and material at least $60,000; and assuming that its depth is 3885 feet. Have you prepared any table showing the expense of operation on the basis of the amortization figures that you have been giving that would be applicable to that well? **[2033]**

A. Yes sir, only not for the depth of 3885 feet. I have taken a detph of 3600 feet, which is more liberal. That is, it favors the conditions of this well.

Q. Will you produce that table? Is this the one you refer to?

A. It is.

Mr. Lewers—We offer this table in evidence.

Q. By Mr. Mills—In making this table, Mr. Anderson, I understand you to say that you have assumed that the well is 3600 feet deep?

A. Yes.

Q. And you also assume, do you not, that the total production of 2265.15 barrels was a production which was distributed over eight months in the daily average or monthly average.

A. Now, I will have to correct a statement in the assumption made in the first case in regard to this table. The official information that I have in regard to the production here is that during—

Mr. Mills—Just a mintue. I don't think that you probably understand the nature of my objection and which counsel for defendant agrees with me is valid, and that is, that you should not give any hearsay testimony of any alleged facts.

The Witness—I don't desire to.

Mr. Mills—You can discuss this upon any assumption you desire, but don't interject the statement that you have any facts, because they ought to be presented by people who are able to testify to the facts.

Q. Now, let me give you another question: You

have assumed by this offer, which I understand was prepared by you, that the total production of this well on 30 of 30-24 was a daily average production during a period of months—eight months. **[2034]**

A. No.

Q. Well, a monthly average production during a number of months.

A. I will give you the figures.

Q. I don't want you to give me the figures. I am asking you for a specific statement, now.

A. I will give you the figures from which my assumption was based.

Q. I don't care for that. I am asking you whether or not, generally, you have not by this table assumed an average monthly production for eight months.

A. No; I have not. Six months.

Q. Or six months. Six months. I made a mistake in the number of months.

Mr. Lewers—My question stated eight months. His answer now says six months.

Mr. Mills—All right.

Q. Now, if we assume that this production, according to the facts, came in in an interval less than six months and was not spread over a number of months, your table would not have any application to the facts in the case, would it?

A. If you assume conditions different from those stated in the table I would have to recalculate to meet your assumed conditions.

Q. Well, assume, for example, that the entire pro-

duction of this well was within a period of three months instead of six months, then your table would have no application?

A. It wouldn't apply to your conditions.

Q. No.

A. The conditions of your assumption.

Q. Now, assume that this well flowed ten days when it was first brought in at an assumed depth of 2700 feet, and that [2035] it's reason for stopping in its production was because the casing was shelved down past the formation to prevent it coming out; then your table would have no application, would it?

A. It wouldn't meet the conditions of your assumption.

Q. No. And the increased cost of the great depth which you have assumed here in your table ought not to be charged against a well which would produce as a flowing well at 2700 ft., would it?—or should it?

A. This assumes the condition of pumping of these wells, which was the test that was actually applied.

Mr. Mills—Now, I move that that answer be stricken.

Mr. Lewers—I think it should stand. It is responsive.

Mr. Mills—Well, it is an attempt to state a fact that this witness does not pretend to know.

Mr. Lewis—No; that was in the question.

Mr. Mills—Well, if he states it as an assumed fact, I have no objection to it.

The Witness—Yes. All right.

Q. By Mr. Mills—If, in fact, the well on 30 of 30-24 became a flowing well at 2700 ft. and that the reason it stopped flowing was because the Associated Oil Company pushed their casing down past the formation and closed it out and went on and increased the depth of 3600 ft. then your table charges against the production of that well an enormous amount which would not properly be chargeable to it. Is not that true?

A. This table is not designed to meet any of the conditions that you assume. It is designed to meet the conditions that are presented in the table itself.

Q. Yes. And, assuming the statement which I have just made to be true, then this table would charge against the production of that well an enormous amount of cost not properly chargeable to it?

[2536]

A. You are at liberty, Mr. Mills, to assume anything you please and make any deduction you may be able to make valid.

Mr. Mills—Will you kindly read the last question, and see if the witness won't give a different answer?

Mr. Lewers—I submit that has been answered repeatedly—that if you make another assumption you have to have different multiples and different tables, necessarily. I don't see how it could be answered any more wholly, and I don't request that as preliminary to any objection. It strikes me it is merely anticipating cross-examination.

Mr. Mills—Well, it goes to the competency of these offers of yours, I think, fairly.

Mr. Lewers—If you desire that, Mr. Mills, I am willing to agree that the tables are applicable only to the conditions under which they are presented, and that if different facts require different calculations, that is a matter so obvious that I don't think it needs to be disputed at all by either one of us.

Q. By Mr. Mills—Have you prepared, or can you now prepare, any figures showing the production-cost for a well 2700 ft deep which would be a flowing well on sec. 30 of 30-24?

A. I have not prepared any such statement; and I presume I might be—

Q. How much less, in your opinion, basing your answer on the experience you have had in preparing these tables, would the production-cost be for that well we are now talking about?

A. What is that?

Q. At 2700 ft instead of 3600 ft, and a flowing well instead of a pumping well.

A. Well, really, I don't feel obliged to answer that question, Mr. Mills.

Q. By Mr. Lewers—Have you calculated that, Mr. Anderson? [2037]

A. I have not.

Q. By Mr. Mills—Well, do you mean that you refuse to answer that question, or is it because you cannot now calculate it?

A. I see, Mr. Mills, that you could ask an indefi-

nite number of questions and prolong this examination indefinitely, and I don't know anything about your intentions, and I wish to state right now and here that I don't feel obliged to answer any such questions or to make any such calculation.

Q. Well, now, assuming then, for the purpose of clarifying your intellect, that Mr. King, one of the the men who gave you the information, as you say, testified under oath to the fact that that very well, 30 of 30-24, began flowing and flowed for ten days when it reached a depth of 2700 feet, and that they started drilling deeper and pushed the casing down past the formation from which that oil had come, and that the casing had never been perforated at that point; do you think your table would be applicable to such a condition?

Mr. Lewers—I submit that has been answered repeatedly.

A. That has been answered before.

Mr. Lewers—And I object to the repetition of this question as unduly prolonging the presentation of the direct evidence of this witness. It is not preliminary to any objection, obviously, and I protest against the repetition of questions of that kind which have already been fully answered repeatedly. Have you any objection to the table?

Mr. Mills—Just a moment, Mr. Lewers—

Q. You are unwilling to state, Mr. Anderson, that under the conditions which I have given you, talking them even as assumed conditions, that the production-

cost would be very much less than what this table shows?

A. I am willing to admit that there are conditions which [2038] you could name in which the production-cost would be very much less.

Q. Yes; and is that one of the conditions which I have just named?

Mr. Lewers—Do you mean less depth and finding oil sooner?

Mr. Mills—Yes; and a flowing well.

A. Yes; the conditions which you have named in the assumption answers itself—your question answers itself.

Q. You will admit, will you not, then, that the production-cost would be very much less in a flowing well of 2700 feet?

A. Yes.

Mr. Lewers—The prior tables show that, with respect to the depth, Mr. Mills. That is the purpose of that table.

Mr. Mills—The offer is objected to because it assumes facts not in evidence, because it is immaterial to any of the issues of this case, and because the data which form the basis of this table, as well as the data which forms the basis of the other tables, introduced during this witness' testimony are hearsay, and no opportunity is given to the government to cross-examine the witnesses who furnish the information.

The table last referred to and offered in evidence is marked "Defendants' Exhibit 28—LL", and is as follows: [2039]

Production costs for well 3600 feet deep, costing $60,000, producing 360 bbls per month

24° B. Oil.

	By former schedule	By more probable schedule
Pumping	$0.032	$0.128
Pulling and Tubing	.031	.124
Cleaning, etc.	.0252	.10
Maint. and repairs	.12	.48
Handling prod.	.03	.03
Storage)		
Insurance)		
Marketing)	.045	.045
5% Interest (average)	.05	.10
	$0.3332	$1.007

24° B. oil = $ .50 per bbl
Net cost = 1.007 "

Net loss = $0.507 "
Net loss per year = $2,176.24
= Wages of two pumpers without provisions.

Q. By Mr. Lewers—Now, assuming, Mr. Anderson, that in well No. 1 of the Associated Oil Company, in sec. 22 of Township 30-23, the facts were as set forth in the copy of the log relating to that well heretofore introduced in evidence, and particularly calling your attention to the discovery that was set forth in that well of water-sand and a flow of hot

salt water at the depth of 2710 feet, what does that indicate to you, as a geologist, concerning the territory in which that well is situated, as to its petroleum character? [2040]

Mr. Mills—That is objected to, for the reason that the alleged copy of the log referred to by counsel is not admissible, or competent evidence in this case, for the reason that the proper foundation for its introduction has not been laid, and it is hearsay on hearsay, and is not admissible for general purposes in this case, and for the further reason that the matter called for is wholly immaterial.

A. Assuming that the statements in this log are trustworthy, and taking these statements in connection with other statements in regard to neighboring wells, I will say that the showing made by this well, or in this log, is to the effect that there is no oil territory at this point, that whatever sands there may be are producing water, hot salt water.

Q. By Mr. Lewers—Is that a favorable or unfavorable indication?

A. It is decidedly unfavorable.

Q. And what bearing, if any, does that, if true, have upon the probabilities of water being in other places in that surrounding territory at a similar depth?

Mr. Mills—That is objected to, for the reason that the witness is incompetent to testify on that question, even assuming that he is a geologist.

A. It establishes the preumption that at all points in the vicinity of this well—in the near vicinity and

for a considerable distance from it and similarly situated along the anticline—similar conditions will be met.

Q. You mean water conditions?

A. Conditions of hot salt water, at this level.

Q. Now, assuming that the actual cost of labor and material in a well sunk in the Elk Hills to a depth of 3600 to 4000 feet is $60,000, does that represent properly the entire charge that should be made against that particular well? [2041]

Mr. Mills—That is objectionable, because the question is leading and suggestive.

A. No. The cost properly chargeable against a well must include not only the cost of the labor and material put into that well, but the cost of such structures and facilities as are necessary in order that this well may be operated, that is, drilled and operated, and the cost of the wells sunk in any territory must include also the cost of such surface structures and improvements as are necessary for its proper operation.

Q. Well, how about fuel lines and water lines, and so on?

A. These are all surface improvements necessary for the operation of the wells, and the cost of them must be borne by the wells.

Q. Now, assuming, Mr. Anderson, that there are the number of wells in the Elk Hills that are shown upon Defendant's Exhibit 16 and of the depths there shown, and that of all of those wells only three, to-wit: the Associated Company's wells that we have

been referring to, have produced live oil, and assuming, further, that the production of the well in section 30 of township 30-24 amounted in eight months in which it was on the pump to 2265.15 barrels, and the well in section 26 of 30-23 produced during twelve months' pumping 4074.15 barrels, and the well on section 24 produced during four months' pumping 3602 barrels, or a total for the three wells of less than 10,000 barrels, would you, with your knowledge of the geology of the Elk Hills and the conditions that you have observed there and on the West Side, now advise an investor who was in a position to expend money without crippling him, to sink a well in the Elk Hills with the expectation of finding oil in commercial quantities?

Mr. Mills—The question is objected to, because it assumes the existence of facts not in evidence, and for the further reason that it is wholly immaterial what this witness would **[2042]** advise.

A. As a geologist or as a man having any information about the proper costs of operating oil properties, I certainly would not advise anybody to sink a well anywhere within the limits of the Elk Hills.

Q. By Mr. Lewers—Now, will you explsin more fully why you say that?

Mr. Mills—I object to the answer, because the witness has spent the entire day of yesterday attempting to show why. That question was the culmination of the entire day's work on your part.

A. Because the conditions there and the showings made are entirely unfavorable to any profitable

operation. The showing is to the effect—that is, the showing of your assumption is to the effect—coupled with the conditions that are known ot exist there, that the territory is decidedly unprofitable and could be drilled and operated only at a great loss to the operator.

Mr. Mills—I move that that answer be stricken, because the witness has shown that he has no first-hand knowledge whatever upon the conditions as to well operations in the Elk Hills, and is depending for his conclusions upon hearsay evidence of hearsay evidence.

Q. By Mr. Lewers—Mr. Anderson, there is one question that I overlooked yesterday. Did you ever have any conversation with Professor Owen at any time in 1905 or later, in which there was a discussion by him of the value of the Elk Hills from any standpoint? You may answer that by Yes or No.

A. Yes.

Q. And what was that conversation, or the substance of it, as nearly as you can recollect it?

A. Mr. Mills—Well, when was it, and where? Who was **[2043]** present?

Mr. Lewers—I will come to that.

Mr. Mills—Let us come to it now.

A. As nearly as I can recall—

Mr. Mills—Let me lay the foundation here, if you won't.

Mr. Lewers—Well, he started to answer you.

Q. By Mr. Mills—In the first place, I would like to know at what date the conversation took place, as

nearly as you can fix it, the place where it occurred, and who was present, if anyone.

Mr. Lewers—You may answer.

A. I will state that, as nearly as I can recall, it was in November, 1905, on the occasion of a trip that I took with Mr. Owen and a man by the name of Schooler, who was the driver as we went down through the Midway valley, the trip that was referred to yesterday. The Elk Hills were—

Mr. Mills—Now, just a moment. There is the further objection that the answer will be manifestly a self-serving declaration on the part of the defendants between two geologists in the employ of one of the defendants companies.

Q. By Mr. Lewers—You may proceed.

A. The Elk Hills were in plain view as we drove along the road in the Midway valley, and were the topic of conversation between Mr. Owen and myself. We generally agreed, at that time, that there was no likelihood of there being any oil in the Elk Hills at all.

Mr. Mills—I object to that statement, and move that it be stricken from the record. The question was that the conversation was, and this amounts to a conclusion.

Mr. Lewers—I ask that it stand. Proceed.

A. This statement is introductory to the conversation. Mr. Owen remarked that it might be profitable to own some pro- [2044] perty in the Elk Hills from a purely speculative point of view, that he thought it would have a speculative value at some time.

Q. Did he tell you why?

Y. Yes; it was understood. I don't know the language in which he stated it or that he definitely stated why, but I understood what his idea was.

Mr. Mills—This is further objected to for the reason that it is apparently an attempt to explain in advance, by a convenient conversation alleged to have taken place before the acquisition by Mr. Owen of lands in the Elk Hills for oil purposes.

Q. By Mr. Lewers—You may proceed.

A. The matter had been referred to between us before, as to the speculative value of land in the Elk Hills because of its neighborhood to the Buena Vista anticline, which we believed would be oil producing, which he believed to be oil producing; that as soon as there were wells drilled and a production obtained in the Buena Vista Hills or on the Buena Vista anticline at any point, it would immediately stimulate activity by locators and promotors—

Mr. Mills—Now, I don't want to interrupt you, Mr. Anderson, but the question is what the conversation was. By that I assume that the counsel wants the exact conversation, as nearly as you remember it.

Mr. Lewers—I want the substance of the conversation, and I asked him—

Mr. Mills—Well, I shall object to any evidence at all of this conversation unless the conversation is given in its entirety.

Q. By Mr. Lewers—Will you give the substance of the conversation as you recollect it.

A. I can't recall the details of the conversation, but [2045] I can recall the substance of the conversation, and the conclusions that Mr. Owen reached and that I reached myself, and the process of reasoning by which we reached those conclusions—and that is the important thing, it seems to me.

Q. And what was that process of reasoning?

A. The process of reasoning was that in the subsequent development of the country, the oil territory along the Buena Vista anticline, it would naturally and logically bring into demand land neighboring the Buena Vista anticline on the Elk Hills, and that anybody having property there might readily dispose of it at a profit and in that way realize a financial benfift, without any reference to its content of oil at all. It was a purely a psychological matter.

Q. Did you ever make any endeavors to acquire any property in the Elk Hills?

A. I did not.

Mr. Mills—That is objected to as immaterial; and I move that the answer be stricken.

Q. By Mr. Lewers—Mr. Anderson, Mr. A. C. Veatch, an expert called on behalf of the government, testified as follows. I begin reading from page 1352: "Q. Now, in the case of the Elk Hills, have you made any examination of those hills with reference to their possible oil-bearing value? A. I have. Q. What conclusion did you reach as to the oil character of the Elk Hills? A. That they are oil land. I may say that my investigations were directed pri-

marily to the determination of the conditions existing in 1904, and the conclusion is predicated on the evidence which existed at that time. In a general way to outline the prospoition, there are a series of porous beds and associated clays, which are well designed, on the one hand, to afford a reservoir for the oil, and, on the other hand, to prevent undue leakage, which may be traced for many miles along the flank **[2046]** of the Temblor Range, the east flank in this case, being the important one for this question. In that area there are seepages which have been there from the beginning, which extent for a distance of over fifteen miles, showing the persistence of the oil saturation in these porous layers." Now, I will state at this point that the distance of fifteen miles was subsequently corrected to read "over thirty miles", and in reading of the next question I will make that change. "Q. Are they exposed at all, in any way—those beds? A. Yes. Q. Whereabouts? A. They are exposed on the east flank of the Temblor Range and may be followed there for a great many miles and the porous character readily determined. Now, taking this distance of seepages of thirty miles, and which is, I may say, greater than that, but that is an area that is adjacent to this that is easily shown, it shows impregnation of oil strata extending at least seven and a half miles from a given center. Applying this distance of seven and a half miles from the outcrop, it includes the Buena Vista Hills and the Elk Hills, and the only question which could remain regarding the oil value

of the territory outlined in this way would be with respect to the synclinal areas, the valley lying between the Elk Hills and Buena Vista and McKittrick Hills and the valley lying between the Buena Vista Hills and the outcrop along the front of the range. Both the Buena Vista Hills and the Elk Hills fall within the proven area from geologic determination." Would you agree with that conclusion?

A. I certainly would not.

Q. Why not.

A. Because, he is making the wrong deductions from the data that he affords. The outcrop of oil-bearing beds along the foothills of the Temblor Range for a distance of thirty miles gives no warrant at all for assuming that it would extend half that distance, or a fourth of that distance, or even [2047] more than a tenth of that distance, from this outcrop toward the basin—interior of the basin.

Q. You are acquainted with Dr. Brannor, are you Mr. Anderson?

A. Dr. J. C. Brannor?

Q. John Caspar Brannor.

A. Yes, sir.

Q. At page 1383 of the record, I read: "Q. In your opinion could any competent geologist observing the natural waste of oil about McKittrick and the stage of development in 1909, or a year or two subsequent to that, and having visited the Elk Hills and made some examination of the structural formation, have failed to have formed an opinion that the Elk

Hills were oil in character and that there was an oil-bearing zone underneath those hills? A. I should have said if he did not come to that conclusion he did not understand his business." Would you agree with that statement?

A. I would not. I would rather say that the man that made that statement didn't understand the problems here involved—the geological problems.

Q. Now, is it possible for a geologist who understands his business to determine that land is oil in character by the examination of its structure?

A. Certainly not possible for any geologist, no matter how well qualified he may be, to decide as to the oil-bearing—to decide that land will be oil-bearing solely upon the basis of structure.

Q. What is, in your opinion, the proper function of a geologist in connection with oil land?

A. His proper function and duty is, ordinarily, you might say generally, to look into the geological conditions existing in any proposed area and come to sound conclusions from which he [3348] can advise his clients as to their best course to pursue in any proposed operation upon the land. I don't know that that statement is quite full enough; it may not include all of his duties. But he should look into the commercial conditions, so far as they are revealed, and advise his clients from a purely commercial point of view, as to what the prospects or lack of of prospects are, the evidence there might be one way or the other.

Q. Will, now, what, in addition to structure, does he take into consideration?

A. I understand that you are asking as to the essentials of oil land?

Q. Yes.

A. There are obviously four essentials to oil territory, the failure of any one of which might be fatal. The territory must have the proper structural conditions, the proper stratigraphic conditions, the proper source from which oil may be derived in the immediate surrounding country, and last, and most important of all, it must have oil in the reservoir, whatever it might be.

Q. And how can you determine whether it has oil in the reservoir?

A. You can determine it only by drilling wells.

Q. In your opinion, is it possible for a geologist to surely predict the occurrence of oil in paying quantities in undeveloped territory?

Mr. Mills—That is objected to, because the question includes matters which are not revelant to the issues in this case.

A. It obviously is impossible for any geologist to look into the ground below the surface very far. He might infer various things and come to some kind of conclusions, but he [2049] certainly cannot reach a sound conclusion that a given piece of land will be oil producing, without actually drilling it.

Q. By Mr. Lewers—Well, will drilling it be sufficient to determine the problem?

A. It will not be sufficient to determine the problem of its commercial value. Its commercial value cannot be determined by drilling along, but, in the

event that oil is reached, the well will have to be put on the pump and pumped for a definite number of months or for a definite period of time in order to prove satisfactorily its productive capacity. The final and ultimate test of the value of oil land is the actual production over a period sufficient to recover all costs and pay interest on the costs and to pay a proper dividend above all the costs and above all the interests.

Q. Now, in your opinion, is the discovery of oil in one section of land proof that another adjacent section is oil land?

A. It is not.

Q. Why not?

A. The only proof that you can have of the existence of oil in any area is the actual drilling of wells.

Q. Well, taking the conditions that exist in the Elk Hills as to the strata that go to form the hills and the conditions that geologically must exist in there, would the discovery of oil in one section in the Elk Hills indicate the presence of oil in other sections of the Elk Hills.

Mr. Mills—That question is objectionable, because it assumes matters which the witness states cannot be determined. You say "structural conditions which must exist in the Elk Hill." The witness has already stated that no geologist can tell that without the use of a drill.

The Witness—You are misquoting my statement.

[2550]

Mr. Mills—You can only tell it be inference.

Q. By Mr. Lewers—You may answer.

A. I didn't state that the geologist could not determine the structure. He can determine the structure. But he cannot determine the oil contents, or if the land contains oil at all, until it is actually drilled, and the finding of oil in the Elk Hills in the positions in which it has been found is no basis for a conclusion that it will be found in any adjacent section of land.

Mr. Lewers—You may take the witness.

Mr. Mills—I will be ready to cross-examine the witness when I have a complete copy of the testimony. We will start in at 10 o'clock tomorrow.

Whereupon the further taking of testimony herein was adjourned until Friday, February 21, 1913, at 10 o'clock A. M.

On Friday, February 21, 1913, at 10 o'clock A. M., the further taking of testimony herein was resumed pursuant to the adjountment: Willis N. Mills, Assistant Attorney-General, appearing on behalf of the plaintiff; and Charles R. Lewers, Esq., appearing on behalf of the defendants.

Mr. Lewers—One more question I want to ask before you start, Mr. Mills.

FRANK M. ANDERSON,

recalled, DIRECT EXAMINATION resumed.

By Mr. Lewers:

Q. Mr. Anderson, frequently in the testimony of Mr. Veatch, a comparison is made between the occurrence of coal and that of oil; will you state what dis-

tinction, if any, there is between [2051] the method of occurrence of coal and that of oil?

Mr. Mills—I will object to that, because the witness has not yet shown himself qualified from examinations of coal fields and their occurrence, to pass an opinion of any value on that subject. Until he does so qualify, I think his evidence on the question is incompetent.

Mr. Lewers—I see some merit in your objection, Mr. Mills.

Q. Have you had any experience in connection with coal deposits?

A. I have.

Q. Where?

A. In California and in Oregon and in Wyoming and in New Mexico.

Q. And what was the nature of that experience, will you just state briefly?

A. In California I have made reports on a number of different coal properties, investigated them as thoroughly as the nature of the case would allow; and the same is true of Oregon, Coos Bay region. In New Mexico I have not made any reports. I have, of course, read extensively on the occurrence of coal there and elsewhere all over the United States, wherever coal occurs. I am familiar with the literature on the subject of coal fields, and familiar also with the methods of geologists in estimating coal areas, and I feel that I am qualified to pass judgment upon the merits of coal land, and have been paid for doing this sort of thing morethan a few times.

Q. Now, is the analogy between the method of accumulation and occurrence of coal and that of oil a fair one, Mr. Anderson?

A. There is no resemblance strictly, properly, in the occurrence of coal and the occurrence of oil, except that they both occur in sedimentary, stratified beds. This is obviously true from the fact that oil is migratory and moves from point to **[2052]** point through the formations, and coal does not; coal beds remain where they are originally deposited and do not migrate to any other point. Oil deposits do migrate and are subject to a great many irregularities that do not exist in coal.

Mr. Lewers—No further questions. You may cross-examine.

CROSS EXAMINATION OF FRANK M. ANDERSON.

By Mr. Mills:

Q. On the cross-examination of Dr. John Caspar Branner, a geologist called for the government in this case, Mr. Lewers asked this question, at page 1418 of the reporter's transcript: "Q—Of the men whom you have referred to as having been former students, Mr. Ralph Arnold has been more actively engaged in oil geology than any other, has he not. A—Well, he did more work for the United States Geological Survey than any other one, I presume. Q—And he is a man who has the reputation, deservedly, of being an able geologist, is he not? A—He has; yes sir. Q—And

has devoted, to your knowledge, a very great deal of time and study to the oil geology of California? A—He has. Q—And of the other men whom you have mentioned, who has devoted the greater amount of time to what we might call the scientific study of oil formations in California? A—Well, I expect that Rovert Anderson has. He was Mr. Arnold's assistant for some years, and after Mr. Arnold resigned from the United States Survey, Mr. Anderson was put in charge of the petroleum work in California by the Survey." You are not that Mr. Anderson, are you?

A. No sir, I am not.

Q. Your name is Frank M. Anderson?

A. Yes sir.

Q. And that Mr. Anderson is now connected with the United [2053] States; that is, Mr. Robert Anderson is now connected with the United States Geological Survey?

A. No.

Q. Mr. Robert Anderson?

A. No, he is not.

Q. What is he doing?

A. Why, Mr. Robert Anderson is a personal friend of mine, and I happen to know that he is not connected with the Survey at the present time. I don't remember now exactly what capacity he is working in, but he is associated with some other well known geologists, but I don't remember who they are. I received this information within the last three weeks.

Q. Well, don't you know that Mr. Robert Anderson at the present time is at the head of the land

classification board in the United States Geological Survey?

A. No, I don't know that. My information is to the effect that he has left the Survey entirely and is going into private work.

Q. What geologists had the Southern Pacific Company in its employ at the time you entered its service in 1903?

A. Only Professor Dumble and Mr. Owen, as far as I know, and myself, after I had started.

Q. What geologists did the Central Pacific Company have in its employ at the time you were employed by it?

A. I was perhaps the only geologist, and I was not engaged in geological work all the time. I was in the land department of the Central pacific.

Q. What work were you doing apart from strictly geological work, for that company?

A. I was sent out into the timber belts and asked to work cruising timber lands, and that I objected to, and it is not in my line, and that is the one reason why I wished to leave [2054] the land department and went into the geological department.

Q. Now, in 1903, Mr. Anderson, how old were you?

A. In 1903?

Q. Yes.

A. I was forty years old.

Q. And what railroad companies, if any, have you been connected with as an employee or in any service for which you have been or are being paid?

A. I have not been connected with any railroad company except the Central Pacific Railroad Company. When I left the employ of the Central Pacific Railroad Company, that is, in their land department, I went into the employ of the Southern Pacific Company.

Q. You draw the distinction between a railway company and a railroad company?

A. I do not.

Q. Both companies at one or other times after their existence have been common carriers, have they not?

A. The distinction, Mr. Mills, between the Southern Pacific Company and the Southern Pacific Railroad Company?

Q. I understand the distinction.

A. I was in the employ of the Southern Pacific Company.

Q. Yes, I understand it. And the Southern Pacific Company is a common carrier, is it not?

A. Well, that I am not able to answer.

Q. Now, you are drawing some fine distinctions here and I thought possibly you might carry your distinctions to that extent?

A. Well, I don't know.

Q. The Southern Pacific Company has a lease of the Southern Pacific Railroad Company right of way and its rolling stock, and is operating that railroad as a common carrier; isn't [2055] that true?

A. Well, that is not for me to answer. I am not

qualified to answer those questions at all. I wouldn't attempt to.

Q. And the Southern Pacific Railroad Company is the company which obtained the land grant, the lands which you were examining in company with Mr. Owen under the direction of Mr. Dumble, which you have referred to; is that correct?

A. I am not prepared to answer that, Mr. Mills. If you wish to testify to that effect, why, of course you are at liberty to do so.

Q. Was there anything in my question, Mr. Anderson, that would call for such an indulgence of temper on your part?

A. Mr. Mills, I haven't shown any temper at all. I am simply stating a fact, that this matter is out of my range of knowledge. I don't know anything about it, as I told you at the beginning, and I don't wish to answer any questions in regard to it. I am not qualified to answer such questions, and I do not wish to do so, and the sooner we clearly understand this, I think the more rapidly this case will progress.

Q. Have you finished? You raised the question yourself, did you not, Mr. Anderson, by quibbling over the use of the words "railroad company"?

A. No sir, I did not. I simply stated a fact.

Q. Don't you know, as an employee of the Southern Pacific Company, that it operates a railroad?

A. I presume it does, but the technical questions that you ask I am not able to answer. I don't know anything about that matter; at least I don't know it intimately.

Q. What month of the year 1902 did you enter the employ of the Central Pacific Railroad Company?

A. I entered the land department of the Central Pacific Railroad Company about the 1st of April, 1902. [2056]

Q. And immediately prior to that time, what were you doing?

A. I had been engaged as an assistant in the State Mining Bureau of California.

Q. And just prior to that time what were you doing?

A. Well, I don't understand just what date you mean, prior to that time.

Q. Prior to the time that you went with the Mining Bureau.

A. I was instructor in the University of California; instructor of mineralogy.

Q. And you remained, I understand, with the Central Pacific Railroad Company as a geologist until the 1st of April, 1903?

A. Yes; except as I stated before, that I was on a leave of absence in March.

Q. Now, you stated that while you were with the Central Pacific Railroad Company, a part of your duties were those of a geologist, and in part were those of a timber cruiser. Now, as a geologist, Mr. Anderson, did you make any examination of lands for the Central Pacific Railroad Company?

A. I made examinations of some of their patented lands, yes.

Q. In what state?

A. California and Oregon, and I don't remember that the Oregon lands were definitely owned by the Central Pacific Railroad Company. I was asked, however, to go up into Oregon and see some of the grant lands in which the Southern Pacific Company had some interests.

Q. Now who requested you to go into Oregon to make examinations of grant lands?

A. Mr. W. H. Mills.

Q. Those lands were granted to the Oregon & Califor- [2057] nia Railroad Company, were they not?

A. I presume so.

Q. And the Oregon & California Railroad Company, like the Central Pacific Railroad Company, was at that time a subsidiary of the Southern Pacific Company?

A. Yes.

Q. As you understand?

A. I presume so. I would state, in further answer to your question, I was sent into the state of Nevada to do similar work.

Q. That is the examination of lands as to their mineral character?

A. Not exactly; to examine patented lands as to the mineral deposits that they contained. One of the first bits of work that I did for the Central Pacific Railroad Company or for the land department of that company, was to examine some iron deposits somewhere east of Lovelocks, Nevada.

Q. Now you stated that in the month of March,

1903, you made your first visit to the Kern River and West Side fields, of Kern County, California?

A. Yes.

Q. What date in March was it, as nearly as you now recollect, that you arrived at the Kern River fields?

A. I don't remember distinctly the date. I can only say it was early in March.

Q. Did you make your examination first of the Kern River fields?

A. Yes.

Q. How much time did you spend on that examination in the Kern River fields?

A. I was there three or four days.

Q. And from there you went immediately to the West Side fields? [2058]

A. I went over to McKittrick.

Q. Now that was about what time in March that you arrived in McKittrick, do you think?

A. I douldn't tell you that. It was before the middle of March, as well as I recollect.

Q. Somewhere about the 10th or 12th of March, you think?

A. Possibly. I think it was earlier than that.

Q. Now you stated that you entered the employ of the Southern Pacific Company through a letter which you wrote to Mr. Dumble at Houston, Texas; is that correct?

A. Yes.

Q. Was Mr. Dumble in Texas at that time?

A. He was.

A. And this letter of yours was written after your several conversations which you have recited with Mr. Owen?

A. Yes sir.

Q. Now when did you receive a reply from Mr. Dumble in respect to that letter?

A. I received a reply almost immediately.

Q. Where is that letter; have you it now?

A. I have not.

Q. By Mr. Lewers—What became of it, Mr. Anderson?

A. The letter that Professor Dumble wrote to me?

Q. Yes.

A. I have no idea. I presume I destroyed it. I didn't attach any importance to it after it had served its purpose; I had no reason to retain it.

Q. By Mr. Mills—Where did you get the letter, at McKittrick or Bakersfield?

A. I got it at Berkeley.

Q. At Berkeley?

A. Yes sir. [2359]

Q. That was your home at that time?

A. Yes.

Q. Now returning, Mr. Anderson, to the trip which you stated that you took with Mr. Owen from Marysville south into the Buena Vista Hills, that was the second or third trip?

Mr. Lewers—That was in September, yes, about [2360]?

Mr. Wells—Yes.

Q. Which you took with Mr. Owens, was it not?

A. Yes, that was in September, 1903.

Q. Well, I wanted to identify it as the first, second or third trip, which it was, was it not, or the fourth trip? The first trip I think you said you took up north of Holbrook?

A. Yes.

Q. Now was this the second or third trip which you took them?

A. I don't believe I testified as to that, Mr. Wells. I told you that I couldn't recall how many times I had been to Holbrook after the first trip in March, 1903, but that on a subsequent occasion, which was in September, 1903, I took the trip with Mr. Owens, and accompanied by the man Mr. Barrett, who was Mr. Redwood's assistant. That was in September, 1903.

Q. You traveled along the usual traveled road from Maricopa up into the Burro Vista Hills at that time?

A. I traveled from near Maricopa. I can't recall now definitely the road we followed.

Q. Does the road run up to a place called Morenci?

A. You understand in 1903 the roads were not the same as they are at this way you are looking at.

Q. That is what I am trying to find out, whether they were the same.

A. No.

Q. Was the road generally north and in a north-

erly dir- [2060] ection from Maricopa? Was this the road here which is shown here? (indicating on map)

A. Well I think more probably it was the road running across this way (indicating). It was a road running rather northeasterly from Maricopa.

Q. At that time you visited Section 11 of 32-24?

A. Yes.

Q. Now did you visit Section 28 in 32-24 at that time?

A. I am not sure that we did. I rather think we did not.

Q. Now, Mr. Anderson, when you entered the employ of the Southern Pacific Company how were you paid, through vouchers from the company itself or by the personal check of Mr. Dumble?

A. I was paid by pay checks which were—you mean while I was in the geological department?

Q. Yes.

A. I was given pay checks which were paid by the paymaster of the Southern Pacific Company.

Q. Do you know how Mr. Owen was reimbursed for his services?

A. He was paid in the same manner as far as I know the fact.

Q. And Mr. Dumble?

A. The same manner.

Q. Did you have any personal conversation with Mr. Dumble prior to your taking employment, and after your letter to him?

A. A very brief conversation.

Q. Where did you meet him?

A. He had a temporary office in what was known as the Union Trust building, I believe, and I met him in that office.

Q. Was that office in connection with the other general offices of the Southern Pacific Company, or apart from them?

A. There were several departments that had offices in [2061] that building.

Q. Of that company.

A. Of the Southern Pacific Company.

Q. Now at the time you took this trip over to Section 11, I have asked you whether you visited Section 28, and your reply was you didn't think you had, was it?

A. I believe we did not visit it on that trip.

Q. Are you acquainted with Section 28 now as to its oil-bearing value?

A. Yes.

Q. Are there any producing wells on that section?

A. Yes.

Q. What, in your opinion, is the character of 28 as to being oil land or not?

A. I believe it is oil land; as far as my information goes there have been profitable wells drilled on Section 28.

Q. What companies, if you know, are operating on that section?

A. I believe the Standard Oil Company has some wells there, and there are one or two other companies

that have wells that are said to have produced oil commercially. I don't know anything about the exact value of those wells or the exact value of the land, and I wouldn't undertake to say that in a commercial sense, really, it was oil land; I couldn't say that these wells are profitable wells. I have seen oil coming from them, and I have heard.

Q. The question was whether you knew what other companies were operating there besides this?

A. I have forgotten now. I have known.

Q. How many producing wells are there on that section now, Mr. Anderson?

A. I couldn't answer that question, Mr. Mills. [2062]

Q. That land or the south half of that section was entered by Mr. Owen during his lifetime, at the instance and for the benefit of himself and Mr. Dumble, was it not, as a desert land entry?

Mr. Lewers—To which I object on the ground it is not cross-examination, of any matter brought out on the direct examination: and upon the further ground it is irrelevant to any issue in this case, as it is not in any way concerned with any defendant; purely, if true, private matter pertaining to individuals.

Mr. Mills—The purpose of the enquiry will develop, Mr. Lewers and I think it is strictly within the rule.

(Last question is read by the reporter).

A. I am not able to say. I do not believe that this was the case, strictly.

Q. Isn't it a fact that Mr. Owen entered the south

half of that section, that Mr. Wible entered the northeast quarter, and Mr. Haberkern entered the northwest quarter, as a desert land claim, and that Mr. Owen held the south half for himself and Mr. Dumble?

Mr. Lewers—To which I make the former objections, to the former question.

A. I have no knowledge of that matter, Mr. Mills, except from hearsay.

Q. By Mr. Mills—Well, you have heard that, haven't you?

Mr. Lewers—To which I object on the ground it is calling for hearsay testimony and not cross-examination.

Q. By Mr. Mills—Didn't Mr. Dumble himself tell you that?

Mr. Lewers—To which I make the same objection.

A. I don't recall that Mr. Dumble ever told me that.

Q. Have you discussed with Mr. Dumble the propriety or impropriety of his connection with the transaction referred to? **[2063]**

Mr. Lewes—To which I make the same objection.

A. I believe not, Mr. Mills.

Q. By Mr. Mills—And did you not say to Mr. Dumble in substance, that his entry through Mr. Owen of that land as a desert land entry was a fraud and imposition upon the government?

A. I did not.

Mr. Lewers—Mr. Mills, this is not cross-examina-

tion. I don't want to consume your time by repeating the objection.

Mr. Mills—You will see the purport of it before I get through.

Mr. Lewers—I object to any examination along that line, and ask that the objection be considered made before the last question, on the grounds that it is not cross-examination and not relevant.

Mr. Mills—I will agree with you that it may be considered as you ask.

Q. Did you ever discuss the subject of Mr. Dumble's interest in that land which was attempted to be obtained by the use of desert land entry law?

Mr. Lewers—To which I object on the ground that it is calling for hearsay testimony, and upon the ground it is not cross-examination, and not relevant to any issue in this case.

Mr. Mills—Well, suppose we stipulate that your objections go to all these questions of this character, and we will get along.

Mr. Lewers—Well, you vary your question. I think it would be better for me to make my objections.

(The last question is read by the reporter.)

A. I have mentioned the matter.

Q. By Mr. Mills—To Mr. Dumble?

A. No, not to Mr. Dumble; that is, I am not sure that I **[2064]** did; perhaps I did. I have discussed the matter of Mr. Owen's and his interest in this land, but not to criticise either of them. I have mentioned it to Mr. Dumble. My information, the first

information I had of the matter was what Mr. Owen gave me, and he simply said that they had acquired land, and it was a part of this Section 28. I don't know that he even told me at that time by what means he had acquired it, except that he said that there was an old water-well on it, on the north part of the section, and that he thought it might be agricultural land.

Q. You know at that time, Mr. Anderson, that both Mr. Owen and Mr. Dumble attempted to acquire what they believed to be petroleum land, under an agricultural form of entry?

A. I have no—

Mr. Lewers—Wait a moment. I object on the ground that it is not cross-examination, and upon the further ground it is not relevant to any issue in this case, and an attempt to bring into the case a discussion of entirely outside issues, with the obvious purpose of prejudicing a witness to be in this case, and a former employee of one of the defendants who is now dead, and who has no opportunity to be heard in his own behalf, on this earth.

(Last question is read by the reporter)

A. I would like to ask to what time you refer, Mr. Millls.

Q. By Mr. Mills—I refer to the time when Mr. Owen entered the south half of Section 28 as a desert land entry.

Mr. Lewers—Mr. Anderson stated that he didn't

know anything about desert lands there. I object to the question on the further ground it is indefinite.

Q. By Mr. Mills—The question was as to when the entry was made, Mr. Anderson, or to when you discussed it.

A. What time do you refer to, what date or time?

Q. I refer now to the time that you had the discussion [2065] with Mr. Dumble as to that land.

A. I never had any specific or special discussion with Mr. Dumble with regard to this land that I can at all repeat.

Q. Well, you had a discussion with him about this land.

A. The land was mentioned.

Q. Now, at that time, fixing your mind upon the time you have now mentioned, did you not know that both Mr. Dumble and Mr. Owen believed that land to be petroleum land, and took it or attempted to take it under a desert land entry?

A. No, I had no such information as to what they believed.

Q. And you knew that, did you not?

A. The only information I had as to their purpose was what Mr. Owen told me, that they believed it to be agricultural land.

Q. Did Mr. Dumble tell you, and did you laugh about it when he said that he was obtaining that land for orange culture or eucalyptus culture?

A. I don't remember now that I laughed about

it. I smiled more or less at the likelihood of raising oranges there.

Q. Mr. Dumble also told you, did he not, that in vindication of the methods by which they attempted to acquire that land, that he believed it had some water value also?

Mr. Lewers—To which I object, on the ground that the question is double: on the further ground that it is not cross-examination and not relevant to this issue, and on the ground that it assumes a matter not in evidence, that Mr. Dumble was attempting to vindicate some action, and I ask that the question be divided, and the assumption be omitted.

(The last question is read by the reporter.)

Mr. Lewers—And on the further ground it is calling for the witness's conclusion as to why something may have been said.

A. I do not recall this conversation to which you allude, **[2066]** Mr. Mills. The matter was mentioned between Mr. Dumble and myself, and I believe he did tell me that he thought that it had a value for water and agricultural purposes, basing his conclusion, I believe, upon what Mr. Owen had told him. I wish to state this, that my first information about this matter was given me by Mr. Owen, in which he stated that he had acquired from others whatever claims existed on this land, and he thought it was agricultural land; that there was an old water well, and he believed that they could get some subterranean water for irrigation; and he incidentally told me at the same

time that he had paid out $1200 to somebody for this claim, and that Professor Dumble was part owner with him. I didn't inquire any further than that. I didn't ask him as to the nature of the claim, whatever it might be.

Q. You believed yourself at that time the land was petroleum land, did you not?

A. I did not.

Q. And you told Dumble and Mr. Owen that you didn't like that method of acquiring lands from the government under agricultural entry when they knew it was petroleum land?

A. I did not.

Q. Now, as a matter of fact, the land which they did acquire was Section 10, 32-24, and the southwest quarter of Section 2 in 32-24, and finally relinquished their desert land entry on Section 28; isn't that true?

Mr. Lewers—To which I object on the ground that the question is not cross-examination; not relevant to any issue in the case; on the further ground that it contains a series of assumptions all stated by counsel, and to answer the question in the form given would be an answer to each and every one of the assumptions; and I ask that the question be divided.

(The last question is read by the reporter.) **[2067]**

A. I have no knowledge, Mr. Mills, as to what they relinquished, or what Mr. Dumble and Owen acquired in their own names or any other.

Q. By Mr. Mills—Did you accuse Mr. Dumble of fraud and want of good faith in his attempt to acquire

an interest in the south half of Section 28 under a desert land entry when he believed it to be petroleum land?

Mr. Lewers—To which I object on the ground it is not cross-examination; on the further ground that no time is fixed.

A. I did not.

Q. By Mr. Mills—Did Mr. Dumble at any time make a suggestion to you to go in with him upon an analogous transaction, that is, to acquire certain lands in that field by the use of desert land entry, which he knew to be petroleum lands?

Mr. Lewers—To which we object on the ground that it is not cross-examination and not relevant to any issue in this case.

A. Professor Dumble never made any such suggestion to me, Mr. Mills. He knew better.

Q. By Mr. Mills—Did you criticise Mr. Dumble at that time when you had the discussion with him because he did not disclose his hidden interest to the land office in the south half of 28 on which Mr. Owen had entered?

A. I did not.

Q. That entry was contested by mineral locators on the south half of 28, was it not?

Mr. Lewers—To which we object on the ground it is not—

A. I don't know.

Mr. Lewers—Just a minute, Mr. Anderson. We object on the ground it is not cross-examination and not relevant to any issue in this case.

Q. By Mr. Mills—Did Mr. Dumble ever inform you of that [2068] fact?

A. I don't recall that he did. I heard incidentally or through the newspapers, perhaps, that there was a contest.

Mr. Lewers—I move that that be stricken as hearsay.

Q. By Mr. Mills—A mineral contest against this agricultural entry of Mr. Owen's?

A. I heard that there were mineral entries on this land.

Mr. Lewers—I move that that be stricken out as hearsay; irrelevant and incompetent.

Q. By Mr. Mills—Now, did you know, from anything you heard from Mr. Dumble, that the mineral contestants to that entry made Mr. Dumble and Mr. Owen's position so uncomfortable that the parties who held those entries in the land office were obliged to finally submit to the filing of a relinquishment, after the register and receiver had held favorably to their claims in the local land office?

Mr. Lewers—To which we object on the ground that the question contains an assumption not based on any evidence; on the further ground it is not cross-examination and not relevant to any issue in this case and calling for hearsay testimony and incompetent.

A. I have no knowledge of any such transaction, Mr. Mills.

Q. By Mr. Mills—Now, did Mr. Dumble ever communicate to you the fact that he and Mr. Owen, by the use of dummy locators, including almost the en-

tire family of Mr. Owen at that time, had located Section 10, 32-24, and the southwest quarter of Section 2 in the same township, for gypsum?

Mr. Lewers—To which we object on the ground it is not cross-examination; not relevant to any issue in this case; calling for hearsay testimony; incompetent.

A. Professor Dumble never communicated to me any such matter. **[2069]**

Q. By Mr. Mills—Did you know that Mr. Owen and members of his family had located that land for gypsum?

Mr. Lewers—To which we object on the grounds it is incompetent and irrelevant and not cross-examination.

Q. By Mr. Mills—That is the section immediately west of Section 11 that you visited that day?

A. I will have to say, Mr. Mills, that I haven't any such information. I heard—

Mr. Lewers—I shall object to any hearsay testimony.

Q. By Mr. Mills—You may complete your answer. Don't interrupt the witness.

A. I heard by some means, and I can't tell you now just precisely how, that Mr. Owen and Mr. Dumble were interested in some way in these locations. What the locations were made for I never investigated, and never asked.

Q. You know Section 10 of 32-24?

A. I do.

Q. Isn't that the section where you stated that they

brought in a gas well, or brought in a well which flowed gas for a considerable period?

A. Yes.

Q. And in which you stated on direct examination that you had measured the flow of gas?

A. Yes.

Q. What well was that, Mr. Anderson?

A. That was well No. 1 of the Honolulu Oil Company, as it was known.

Q. Now, did that well produce oil?

A. It did.

Q. Was that the well to which you referred, and was that the section of land on which the well was located, when you stated that the bringing in of that well caused excitement and [2070] activity in the Elk Hills?

A. That was the well to which I referred.

Q. And that was on the section immediately west of the section that you and Mr. Owen visited on your trip from Maricopa to the Buena Vista Hills?

A. Yes.

Q. Now, did you on that trip with Mr. Owen visit Section 10? That would be west of Section 11, that you have mentioned?

A. Yes, we went onto Section 10, on the eastern border of it.

Q. Did you believe at that time that Section 10 was petroleum land?

A. As I stated yesterday, I did.

Q. And that was in 1903?

A. Yes.

Q. Did you have any idea at that time, or have you ever had any idea from the examination that you made of that land, that it had commercial value for gypsum?

A. I have never attempted to estimate its value for gypsum. I don't recall now seeing any gypsum deposits of consequence on the land at all.

Q. And in your belief at that time, that you say is not changed, the paramount value of the land was for its petroleum content?

A. Yes, prospective contents of petroleum.

Q. Do you know Section 2 of 32-24?

A. I do.

Q. Has that land been drilled for oil, to your knowledge?

A. Not to my knowledge.

Q. Do you regard that as prospective oil land?

A. Part of it.

Q. What part of it? [2071]

A. The southwestern part of it.

Q. And when did you first form that opinion about the southwest quarter of Section 2?

A. In September, 1903; the southwest portion, I didn't say "quarter".

Q. Southwest portion. Now, did not Mr. Owen, together with members of his family, for his interest and that of Mr. Dumble, locate both Section 10 and the southwest quarter of Section 2 in 32-24, for gypsum?

Mr. Lewers—To which I object on the ground it is

not cross-examination; not relative to any issue in this case; on the ground that it is indefinite and does not indicate any time; made long subsequent to the issues of the fact in this case.

(The last question is read by the reporter.)

A. I have no knowledge, Mr. Mills, what they located it for, if they located it at all. I only have direct information; I understood that they were mineral locations.

Q. By Mr. Mills—Now, at the time that you were out there on that trip with Mr. Owen when you visited these sections of land, or at least Section 10 and Section 11, did Mr. Owen agree with you that that was prospective petroleum land?

A. He did.

Q. Did you at that time visit the southwest portion of Section 2 in the same township with Mr. Owen?

A. I did.

Q. Did he agree with you at that time that it was prospective petroleum land?

A. The southwest part of 2? Yes.

Q. Has the southwest portion of Section 2, to your knowledge, basing your answer on such examination as you made at that time or any other time, any commercial value for gypsum?

Mr. Lewers—To which we object on the ground it is not [2072] cross-examination, and not relevant to any issue in this case.

(The last question is read by the reporter.)

A. I have never seen any deposits of gypsum on it; at least none that I considered commercial.

Q. By Mr. Mills—This land which I have referred to, Section 10, and the southwest quarter of Section 2 was afterwards patented to Richardson Brothers, was it not, of the Buena Vista Land & Development Company?

A. I don't know.

Q. Holding in secret trust the interests of Messrs Dumble and Owen, based on those locations?

Mr. Lewers—To which I object on the ground it is not cross-examination; not relevant to any issue in this case, apparently an attempt to bring an entirely different matter into this case, a matter not concerning any of the defendants in this case.

Mr. Mills—Well, now, Mr. Lewers, you have made this objection several times, and I think possibly it would be well for me at this time to state in the record, that it is in evidence here that Mr. Dumble either in August or September, 1903, as the chief consulting geologist of the defendant Southern Pacific Company, went to the office of the land department of the Southern Pacific Railroad Company, and there urged the selection of the lands in this suit, because, as Mr. Stone, the assistant to the acting land agent of the Southern Pacific Railroad Company, believed to be for their petroleum values; and if Mr. Dumble was in the business at about that period of time of attempting to acquire from the government, for his own benefit, petroleum lands, under the guise of agricultural entry, I think it has some bearing upon the motive

which inspired the fraudulent selection of these lands in suit.

Mr. Lewers—Is that all? I move that the entire state- **[2073]** ment be stricken out, because it is argumentative, and not permitted by the rules to be inserted in the record. And in making that motion, I don't concede that one single statement contained within that argument is based upon anything in this record; and on the contrary it is directly contrary to the evidence that was produced by the witness Stone and the witness Eberlein, witnesses on behalf of the government.

Mr. Mills—Referring briefly to the record of the testimony of Mr. Stone, at page 1704, Mr. Stone was asked this question: "At whose suggestions were the lands," meaning the lands in suit, "placed in the list? A—To Mr. Eberlein, you mean? Q—I am asking you at whose suggestion those lands were selected. A—Mr Dumble, I think. Q—Mr E. T. Dumble? A—Suggested to Mr. Eberlein that they be selected." And on page 1707, the same witness, in explaining his feelings over being discharged from his employment, said, in answer to this question: "Now, you felt some bitterness at that time, didn't you, Mr. Stone, about being let out? A—Naturally. Q—And having in mind the fact that you had been in the employ for some time, did you call attention to any officer of the company to the irregularity, or such as you regarded as an irregularity, of the selection of those lands? A—Probably I did. Still, I don't recollect."

Later on; "Well, in what respect did you regard it as irregular?", referring to the selection of the lands. "A—Mr Dumble, as the geologist, I thought pressed the selections for reasons best known to himself. Q—Yes; and what were those reasons, as you regarded them? A—Shall I answer? Q—I have asked you to answer the question. A—I suppose that as geologist he thought they were oil-bearing lands." I leave it to the court to determine whether I misstated the record.

Mr. Lewers—I am quite content. I notice you didn't read it all. **[2074]**

Mr. Mills—I didn't read all of your objections.

Q. And you were informed by Mr. Dumble and Mr. Owen that Richardson Brothers held in secret trust for them their interests in those lands?

Mr. Lewers—I make the same objection.

Q. By Mr. Mills—In 10 and 2.

A. 10 and 2, southwest quarter of 2, Township 32-24. I believe Professor Dumble told me that the Buena Vista Land and Development Company held interests for him and Mr. Owen in these lands.

Q. Yes. Mr. Dumble and Mr. Owen both held stock in the Buena Vista Land and Development Company, to your knowledge, did they not?

Mr. Lewers—To which I object, on the ground that it is not cross-examination, and not relevant to any issue in this case.

A. I don't know whether they held stock in the company or in what way their interests were held in the company.

Q. By Mr. Mills—Do you know whether those lands, referring to 10 and 2, were subsequently sold by the Buena Vista Land & Development Company to any person—that is, to any person or company—upon the advice of Mr. Dumble that the lands were petroleum lands?

Mr. Lewers—To which I object, on the ground that it is not cross-examination, not relevant to any issue in this case, no time is fixed.

A. I don't know that these lands were sold upon the advice of Mr. Dumble. I made a report upon these lands myself and my report went to Mr. Matson, who was instrumental in the purchase of these lands, connected in some manner with the purchase of these lands, the Buena Vista Land & Development Company. Just what induced Mr. Matson to buy the land I would not be able to say. **[2075]**

Mr. Lewers—When was that report made?

Mr. Mills—That report was made in August or September, 1908.

Q. Did you report favorably upon the petroleum values of the lands?

A. I did.

Q. Did you make any report at the request of Mr. Dumble?

A. I did not.

Q. Who requested you to make the report?

A. Mr. L. A. Crandall.

Q. Mr. Crandall was also contemplating the purchase of those lands, was he not, at that time?

Mr. Lewers—To which I object, on the ground that it is not cross-examination, and not relevant.

A. Mr. Crandall was attempting to find somebody to purchase them.

Q. By Mr. Mills—For and on behalf and upon the advice of Mr. Dumble?

A. No; upon the advice that I gave him.

Q. How did you become interested in advising any one as to those lands?

A. Mr. Crandall had asked me if I knew of any good prospective oil land that he might find for some friends and clients of his. He also stated that he had under option a large area of land in the Salinas Valley, and that his people, as he called them, wished me to make a report upon this Salinas land, and also to show them any land that I might know of that was good prospective oil land. I went with Mr. Crandall to see these lands in the Salinas Valley, and I advised him to let them alone, and went with him over into the Midway Valley and to the Buena Vista Hills, and I showed him, among other things, Sections 10 and 2. He asked me to make a report for his people, **[2076]** as he called them, and in some manner I presume this included Mr. Matson. At any rate, my report, which was made, went to Mr. Matson.

Q. Now, did you first inform Mr. Crandall of the possibility of the purchase of those lands as prospective oil lands or did he first talk with you about them?

A. Mr. Crandall didn't know anything about these

lands—never had been in Kern county, he told me—until I suggested that he go into the Midway field.

Q. Now, how did you know that those lands were for sale? Through Mr. Dumble?

A. Mr. Owen told me, not exactly that Sections 10 and 2 were for sale. The matter is a little more complicated than that. Mr. Owen had told me that he was interested in some land in the Midway on Section 31 of Township 31-23. I introduced Mr. Crandall to Mr. Owen in the office of the geological department of the Southern Pacific, and left them in conversation together. I believe that Mr. Owen told Mr. Crandall that he was interested in some other land, including the sections 10 and 2 referred to, and he directly aroused Mr. Crandall's interest in Sections 10 and 2. Mr. Crandall asked me to include these in my report for him and his people.

Q. Did your report include other lands which were owned by the Buena Vista Land & Development Company?

A. Other lands which were claimed to be owned.

Q. Claimed by them. Those lands which were claimed by them were lands in the Buena Vista and Midway fields?

A. Lands in the Buena Vista Hills.

Q. Yes. And they were lands which they claimed under state scrip selections, were they not?

A. I understood so.

Q. And which were being contested by mineral locations? [2077]

A That is what I understood.

Q You understood also, did you not, that those state scrip selections could only be placed upon agricultural lands and not on mineral lands?

A That was my understanding.

Q And the question of the final title is now held up pending adjudication in the land office?

A I have no information as to that.

Q So that at that time you knew that Mr Owen and Mr Dumble held interests of some character in a financial way in the Buena Vista Land & Development Company?

A Yes.

Q And you assumed that it was a stock ownership, did you not?

A I don't know that I assumed that. I didn't inquire into that matter.

Q And that that company was operating in the acquisition of mineral lands by the use of scrip which could only be placed upon agricultural lands legally?

A I would like to hear your question in full. (Question repeated by the Special Examiner.) Yes: I understood that the Buena Vista Land & Development Company were endeavoring to obtain patents through state selection, scrip.

Q Upon mineral lands?

A Upon these lands.

Q Upon lands which you believed to be petroleum lands?

A Yes sir.

Q Did you know at that time that Mr Dumble and

Mr Owen were contributing to that company geological advice as to lands which they were endeavoring to obtain by the use of agricultural scrip?

Mr Lewers — To which I object, on the ground that it is [**2078**] not cross-examination, not relevant to any issue in this case.

A I understood that they were.

Q By Mr Mills — That is, you understood, did you not, that they were locating, so far as they could, the most available, open, unappropriated, prospective petroleum lands for that company?

Mr Lewers — Object, on the ground that it is not cross-examination, and not relevant to any issue in this case. We are not trying the Buena Vista land troubles here.

The Witness — I would like to ask if I am obliged to answer all these questions.

Mr Lewers — The objection goes in and you are required to answer, Mr Anderson.

A What is the question, please? (Question repeated by Special Examiner.) I didn't quite catch the question. Let me hear it again. (Question again repeated by Special Examiner.) I am not prepared to answer that question in just the manner in which it is asked. The Buena Vista Land & Development Company were, as far as I can say, attempting to acquire patents for lands that I believed to have a high prospective value as oil lands; but whether or not they are the most available and profitable and promising prospective oil lands I would not say.

Q Well, the question is, eliminating those matters

that you now amend, and accepting your amendment, you understood that Mr Dumble and Mr Owen were advising the Buena Vista Land & Development Company as to the prospective petroleum value of the lands which that company was seeking to acquire by the use of agricultural scrip?

Mr Lewers — I make the same objection. It obviously refers to a time long subsequent to the granting of the patent or the making of the application which is involved in this case.

A Please read the question. (Last question repeated by [**2079**] Special Examiner.) Yes.

Q By Mr Mills — When did you leave the employ of the Southern Pacific Company as a geologist?

A What is the question, please?

Q When did you leave the employ of the Southern Pacific Company as a geologist?

A I left the geological department of the Southern Pacific Company in the first of September, 1911.

Q What was the occasion of your discontinuing your employment with that company?

Mr Lewers — Object, on the ground that it is not cross-examination, and not relevant to any issue in this case.

A It would be pretty hard to answer your question, Mr Mills. I think that I will say that I left it for business reasons.

Q By Mr Mills — That is satisfactory.

A But I left it of my own volition.

Q When were you employed by the Southern Pacific Company in connection with this case, that is,

in connection with your services as a geologist in this suit, this lawsuit?

Mr Lewers — I will state, Mr Mills, that that might be a little confusing, for the reason that he did some work while he was regularly employed, in this case, in 1911. You are probably referring to the present employment, are you not?

Mr Mills — Yes.

A I believe my work began in November, 1912. My employment as a geologist in this case began then.

Q And has your employment since that time been continuous?

A No.

Q Are you employed, in other words, by the month or the day, or how?

A No; not by the month nor by the day. I don't know that [**2080**] I can state definitely.

Mr Lewers — He is employed, Mr Mills, as a lawyer very frequently is.

Q By Mr Mills — That is, you have a contingent interest in the outcome of the case?

Mr Lewers — No. He would not take it. He wanted cash.

A No. I am working for a fee. I am paid a fee.

Q By Mr Mills — A fee. Have you been paid the fee yet, or will the fee be paid you on the termination of your services?

A The fee will be paid me later, I presume.

Q Now, since November, 1912, you have spent how much time in the preparation of this case?

A I can't answer that question. I have no idea,

except it has been more or less in my mind at intervals while I was doing other work. I have spent comparatively little time since then directly upon this matter.

Q Now, prior to your leaving the regular employment in the geological department of the Southern Pacific Company, on what date did you commence work in preparation for this lawsuit, that is, concerning the lands in this suit?

Mr Lewers — He did not commence the preparation.

Mr Mills—I object to your constant interpolation of facts and alleged facts in the record. Permit me to examine this witness.

Mr Lewers — The government made preparation for the suit; we didn't.

Q By Mr Mills — What date was it that your attention was first called to the fact that you might be required in this lawsuit?

A As I stated yesterday, I visited the Elk Hills first in April, 1911, and I subsequently made a report upon the geological aspects of the same. [2081]

Q I understand, Mr Anderson. But the question is, When was your attention first called to the fact that your services would be required in this lawsuit?

A Probably in October, 1912.

Q October, 1912?

A That is right. Isn't it?

Q Then, why did you make an examination in 1911 of these lands in suit for the railroad people, for the Southern Pacific Company?

A I was asked to do so by Mr Dumble.

Q Did he tell you at that time that there was a lawsuit on in respect to those lands?

A I don't remember now about that. It was, I believe, after the filing of the suit. When was the suit filed?

Q December, 1910.

A Well, it was after the filing of the suit.

Q It was in April, 1911, I think you said?

A Yes.

Q Well, did he mention to you at that time that there was a lawsuit in respect of these particular lands?

A I understood that my report was to be used in the law department.

Q Of the Southern Pacific Company?

A Yes.

Q You understood that before you went out to the Elk Hills?

A Yes.

Q Now, did you have any considerable discussion with Mr Dumble before you went out to the Elk Hills?

A I did not

Q Did you have any discussion at all with him?

A Yes. [2082]

Q Did you have any discussion with any members of the law department of the Southern Pacific Company at that time?

A Yes sir.

Q Who?

A Mr D. V. Cowden.

Q Any one else?

A No; I don't recall any one else.

Q Had you read any of the pleadings in the case in this suit at that time?

A I had not.

Q Now, what were your instructions? To examine the lands in this suit or to examine more than the lands in this suit, or were they general instructions?

A They were rather general instructions, to gather all the facts I could as to the geological character of this land.

Q At that time did you visit the gas blow-out which you have referred to on the northwest quarter of 32 of 30 - 24?

A I did not. I had no definite information as to its location. I had been told that it was on Section 30. I went onto Section 30 and searched for it some but I did not find it.

Q That was in April, 1911?

A Yes.

Q When did you find it?

A I saw it first in November, 1912.

Q Who was sent out with you in April, 1911, to make examination of these lands?

A Mr G C Gester.

Mr Mills — Is he the young man that was here?

Mr Lewers — Yes.

Q By Mr Mills — How much time did you spend over there on that occasion, April, 1911?

A Several days. I stated yesterday approxi-

mately the [2083] number of days. I would have to look that up. I don't want to make a conflicting statement. I can state definitely.

Q Well, was it less than a week?

A More than a week.

Q More than a week?

A I think I was at McKittrick nearly two weeks.

Q By Mr Lewers — Have you any memorandum by which you can determine that?

Mr Mills — Well, I don't care for it. I am not trying to have him misstate the fact, and I don't care if it differs from the other.

The Witness — I was there about two weeks.

Q By Mr Mills — About two weeks?

A About two weeks, I believe.

Q Now, did you go back to visit those lands again after that time before November, 1912?

A I did not.

Q What was the occasion of your visit of 1912?

A I wished to see the state of development, as far as I could, and learn what had been done in the interim.

Q And was it on that occasion that you began the collection of data which from the basis of the numerous tables which have been introduced in your testimony in chief?

A No .

Q When did you begin that work?

A As I said yesterday, I began the collection of this matter, the compiling of statistics pertaining to production and costs of production when I was in the

geological department of the Southern Pacific Company.

Q Well, you were in that department a number of years. What year was it?

A I can't tell you that. The tables are based upon a [2084] long series of experience and the collection of data from a long ways back. I drew up these statements upon my general fund of information.

Q You attempted to acquire some data, however, didn't you, that would be up to date?

A I did.

Q In respect to the lands in this suit?

A I did.

Q And that you got in November, 1912?

A I asked for it, I believe, in November, 1912.

Q And when did you get it?

A Well, sometime after that.

Q In 1912?

A No. I believe it was later than that, most of it. Some of it I got in November, 1912, and some of it later.

Whereupon the further taking of testimony herein was adjourned until 2 o'clock P.M., at the same place.

On Friday, February 21, 1913, at 2 o'clock P.M., the further taking of testimony herein was resumed pursuant to the adjournment: Willis N. Mills, Special Assistant Attorney-General, appearing on behalf of the plaintiff; and Charles R. Lewers, Esq., appearing on behalf of the defendants.

FRANK M. ANDERSON,

recalled, CROSS-EXAMINATION resumed.

By Mr Mills:

Q You stated on direct examination that you never reported to Mr. Eberlein, the land agent of the Southern Pacific Railroad Company, during the time you were employed as a geologist in the holding company, the Southern Pacific Company? Is that correct?

A I never reported to Mr Eberlein at any time.

[2085]

Q Was it your custom to go to the office of the land department of the Southern Pacific Railroad Company, at the instance of Mr Dumble, for the purpose of getting lists of lands inuring to the Southern Pacific Railroad Company?

A No.

Q Did you ever go over there to see Mr. Eberlein for that purpose?

A Not that I recall. I think not.

Q Where did you get the lists of lands which you say and claim you were examining?

A I think they were given to me by Professor Dumble himself in his own department.

Q Did you ever have occasion to indulge in any speculation during the time of your employment as a geologist because of the fact that you were examining lands of the Southern Pacific Railroad Company while you were being employed by the Southern Pacific Company?

Mr Lewers — What do you mean by "speculation"?

A Yes; what do you mean by "speculation"?

Q By Mr Mills — The reason why you were sent out upon lands which were not granted to the company by which you were employed but were granted to another company which was not employing you.

A Doing private work, you mean?

Q No. I mean did it seem strange to you in any way that you were sent out upon lands which fell within the land grant of a company which was not employing you at all and to which you say you were making no report.

A Well, Mr Mills, really I didn't understand the connection between these companies, or if they had any direct connection. I think that I regarded it largely as matter of courtesy. [2086]

Q Courtesy?

A 'M-h'm.

Q That is, it was a matter of courtesy for the Southern Pacific Company to employ geologists to examine lands within the land grant of the Southern Pacific Railroad Company? Is that what you mean?

A Well, I have often been asked to go up into Oregon, inside of the grant limits and outside, at the request of the manager of the O.R. & N. Now, what connection there was between those railroads I didn't inquire into whatever.

Q You knew, did you not, that the Southern Pacific Company didn't have an acre of land which fell to that company under any public land grant?

A That is a matter of general information, just as anybody else might know it, or suppose they knew it.

Q To your knowledge, the Southern Pacific Railroad Company, during the time you were employed by the Southern Pacific Company, maintained no geologic force, did it?

A The Southern Pacific Railroad Company?

Q Yes.

A I believe they did have some geologists.

Q What geologist did they have at that time?

A Well, really I was not very well acquainted with them. There were two or three that knew some geology and mineralogy.

Q Were they men of as high standing in the professional and scientific world as Mr Dumble?

A No.

Q Or as Mr Owen and yourself?

A Well, I couldn't say as to that. I didn't have very much conversation with them.

Q Well, you don't know their names?

A No; really I do not. [2087]

Q Those men were what you call land graders, weren't they? Weren't they known as land graders?

A Why, I believe they acted in such capacity. At least, they furnished information that enabled the office men, or whosoever's duty it was to grade land, to do so.

Q Yes sir. Well, now, did it occur strange to you that the Southern Pacific Company, which you un-

derstood had no land grant, should employ a corps of geologists for the purpose of examining lands?

A No. The Southern Pacific Company acquired a good deal of land outside of the grant, and I often went outside of the grant.

Q You understood, did you not, at that time, that the administration of the land affairs of the Southern Pacific Railroad Company was committed by the directors of that company to Charles W. Eberlein, its land agent?

A I believe that Mr Eberlein was land commissioner.

Q Land agent.

A Land commissioner.

Mr Lewers — No; the term "commissioner" came in later.

The Witness — Did it? Perhaps so.

Q By Mr Mills — Of the Southern Pacific Railroad lands?

A Yes.

Q Now, where did Mr Dumble get the lists of lands which he furnished to you and to Mr Owen for examination?

A I didn't ask him where he got it, and I don't know, except that I suppose he got it from Mr Eberlein's department.

Q Did you know of the trouble which occurred between Mr Dumble and his office and the office of the land department because of the frequent requests for lists of land from Mr Eberlein?

A I did not. [2088]

Q What portion of the lands was given to you to examine and what portion was given to Mr Owen?

A The lands were not divided between us at all. We worked together and separately in these oil districts and we reported separately to Mr Dumble.

Q That is to say, on some lands you would work by yourself, on others you would work jointly? Is that it?

A No.

Q Worked by yourself at all times?

A No. We didn't divide the work up that way. When it was convenient for us to work together we did so on whatever problem might be presented. When it was not convenient for us to work together we worked separately.

Q On separate lands?

A No; not on separate lands. Professor Dumble often asked me to look over certain tracts and report on those tracts to him, and I presume he did the same to Mr Owen.

Q Now, was it a part of Mr Owen's functions as a geologist for the Southern Pacific Company to go out over work which you did separate and distinct from his work and check it over?

A Well, I never thought of it in that light.

Q Well, was it his custom to go out and check up your work after you had done work?

A No; I never — I don't think so. I never — I was not aware of any checking system, one against the other. We worked harmoniously together, and,

as far as I knew, I never criticised his work in the department and I don't think he ever did mine.

Q Well, then, there were some lands, as I understand it, which you examined and reported on which Mr Owen was not required to examine and report upon?

A Yes. [2089]

Q And, vice-versa, he reported on some lands which you were not required to visit and reported upon? Is that correct?

A Well, I suppose he did report on some land that I didn't. Usually I think that he asked me what I thought of certain lands and took my advice to whatever extent he felt justified in doing, as I often did his advice in any report that I made.

Q How long had Mr Owen been active in the discharge of his duties in examining granted lands before you entered the employ of the Southern Pacific Company?

A I couldn't say. He told me when I met him at McKittrick that he had been there a month or a little more. He told me also that he had come down from Orcutt and that he had been at work in Southern Oregon trying to develop a little coal vein that was in Medford.

Q Well, I am not interested in that. Now, at the time you met him, quite by chance, I believe you said, at breakfast-table in a restaurant in McKittrick, you proceeded out that day on this first trip? Is that correct?

A I am not sure that it was that day. I think perhaps it was, but I am not sure that it was that day.

Q Well, on that trip which you took, whichever day it was, you had this conversation with Mr Owen about the Elk Hills, standing out on some promontory west or north of McKittrick?

A Northwest.

Q Northwest of McKittrick?

A Yes.

Q Now, at that time did you know, from anything he said, that he had made examination of the Elk Hills?

A I believe that he told me he did — had been there in the Elk Hills.

Q Prior to the time —

A Yes. [2090]

Q — that he had the talk with you?

A Yes.

Q And that he recognized the anticlinal structure of the hills?

A Yes.

Q Did he say anything at that time about this gas blow-out which you looked for during the month of April, 1911?

A No; he did not.

Q Did he ever say anything to you about it in 1903?

A No.

Q Now, are you quite sure, Mr Anderson, that when you went down to McKittrick on that occasion,

you didn't go there for the purpose of meeting Mr Owen?

A I didn't know there was such a man in existence.

Q You knew of a connection, did you not, of business interests, at least, between the Southern Pacific Company and the Southern Pacific Railroad Company and the Central Pacific Railroad Company, prior to your going down there?

A In a more or less vague way.

Q And you didn't know, at that time, although you had been in the employ of the Central Pacific Railroad Company for a year, that the Southern Pacific Company had a geologist by the name of Owen?

A No. He hadn't been in California up until a month prior to the time I met him. He told me that was his first visit to California, that he had driven down from Oregon with a team — at least he brought his team down from Oregon.

Q Had you met Mr Dumble up to the time you went with the West Side people?

A I had not.

Q Had you corresponded with him in any way?

A I had not. [**2091**]

Q Had you ever heard of him?

A I heard his name. I had seen his name in print; in fact, before I knew he had any connection with the Southern Pacific Company, and I was told by a university man —

Q Well, we don't care about that.

A Something about Dumble —

Q I don't care about that. That is hearsay. You were wholly ignorant of the existence of Mr Owen, but had you at that time in your mind, and I mean by "that time" the time when you left to go down there to the Kern River field, the possibility that you might go into the geological department of the Southern Pacific Company?

A I had not heard of the geological department of the Southern Pacific Company until Mr Owen told me of it.

Q Well, had you in mind the possibility that you might be employed by the Southern Pacific Company as a geologist at the time you went down to the Kern River field?

A Yes; I had. I had several things in view in going down there.

Q And had you discussed your ambition to take such a position with the Southern Pacific Company, with Mr William H. Mills, the land agent of the Central Pacific Railroad Company?

A I had not.

Q Did you ever make any examination of lands of the Southern Pacific Railroad Company, or claimed by that company, at the instance of Mr Eberlein?

A Yes.

Q You examined some land involving part of Section 11 in Township 11 north, Range 6 East San Bernardino meridian, did you not?

A Where is that situated? I don't recall the position of that land. [2092]

Q Well, let me refresh your memory. That was land which was the subject of a contest held May 5th, 1904, before the register and receiver at Los Angeles, in which a man by the name of Hull appeared on behalf of the Southern Pacific Company, and Jesse F. Waterman appeared on behalf of the contestants.

A I don't remember the name of Waterman.

Q A place near Dunn, on the Salt Lake line there (indicating on map).

A What range was that?

Q That is Township 11 north, Range 6 east.

A I don't remember that section or township. I went out there about that time to make a report on some iron deposits near a place called Cave Canyon. The railroad was in process of construction, and there was no place then by the name of Dunn or any other name in that vicinity.

Q Did you accompany a man by the name of Ernest H. Simmons?

A Mr Simons accompanied me.

Q He claimed to be an assayer, chemist and mineralogist?

A Yes.

Q Are you a civil engineer?

A No, I never did any great amount of work in that line. I knew how to use a compass.

Q Well, you sign yourself "C.E.", or have at times?

A Never did in my life that I recall.

Q Are you familiar with land surveying?

A Yes sir.

Q Have you done land surveying for any companies that you have worked for?

A Well, not anything that I would call land surveying. I can find a section corner when I want to.

Q On this occasion when you went out with Mr. Simmons — [2093]

A Simons.

Q Simons, you never even got on the land in dispute at all, did you?

Mr Lewers — Do you regard this as cross-examination, Mr Mills? I object to it as not cross-examination.

Mr Mills — Well, it goes to his qualifications.

The Witness — What is the question, please?

Q By Mr Mills — You didn't get on the land at all that you went to examine that time, did you?

A Why do you say that?

Q Well, didn't the register and receiver postpone the case because when you came on the stand you hadn't been on the land and never got out of the buggy?

A No sir, no sir. I never started to find a piece of land that I didn't get onto. I have made it a practice always to never report on a piece of land that I didn't find.

Q Did Mr Dumble furnish you subsequent to October 8th, 1904 —

A Subsequent?

Q Yes, subsequent to October 8th, 1904, some

plats of land, including the lands in this suit, for an examination?

(Last question is read by the reporter.)

A I think the first list of land that I ever had that included this land, was in 1911, and I can't say that Mr Dumble furnished me with that list. I think I got it from the law department. Possibly it came through Professor Dumble's hands, I don't know. I was never asked to report on this land prior to 1911.

Q Did you ever examine at any time Sections 1, 3 5 and 7 of Township 31, south, Range 24 east?

A I did not. I was never on that land until November, 1912. (examining map)

Q Did you examine at any time for the Southern Pacific [2094] Company, Section 1, 3, 5 and 7 in 31 - 23?

A There was only one tract of that land that I think I could have been on prior to 1911.

Q What tract was that?

A Possibly Section 7.

Q Did you make any report on it?

A I did not.

Q Now, on your trip with Mr Owen to the hill northwest of McKittrick, you state that a conversation occurred between you and Mr Owen concerning the group of hills now known as the Elk Hills; you further state that from the point where you were situated, it was possible to view all the surrounding regions towards the valley and along the flanks of the Temblor Range. Now, why is it that you can only remember that portion of your conversation which

you had with Mr Owen in which you said you both at that time believed that the Elk Hills were too far out from the foothills to contain oil?

A Because this case is brought into prominence, and that particular area, and I have been trying to recall what I had thought and what we had said about this particular area.

Q Why did you think it was important to remember that particular conversation?

A Because I had heard, by hearsay, that there were many false accusations out by the Department of Justice.

Q Well, did you regard it as a false accusation that Mr Owen had been in the Elk Hills?

A No.

Q Notwithstanding the fact that vigorous effort was made by counsel to prove, showing him to be in the hills before the issuance of patent, you did not regard it as strange at all, did you?

A No; I didn't regard it as strange at all that he [**2095**] should go into the hills.

Q You said on direct examination that one of the main purposes of the trip made by you and Mr Owen was to know, as nearly as you could discover, where the prospective and probable oil lands lay; that was true, was it?

A Yes sir.

Q What interest did you have at that time in locating prospective and probable oil lands, when you said that your trip was made as one for purely scientific investigation?

A Because I am an American citizen, and I have rights and privileges of locating land wherever I may find it, if I wish. I didn't go into the Elk Hills, however, at that time.

Q Did you have in mind at that time that you might be employed by the Southern Pacific Company as a geologist?

A Why, I thought of it.

Q What is that?

A I thought of it, yes.

Q Mr Anderson, at page 5053, you said that the oil sands in the Kern River field exist as a delta deposit in the neocene time.

A In what time?

Q Neocene time, which was formed by the Kern River. Now, do you mean by this that the sands which are the source of the oil in the Kern River field were deposited by the Kern River?

A Were deposited in neocene times, not by the Kern River, but they were brought out by Kern River from the adjacent mountains. I don't know that the river bore that name at that distance of time, but the ancestor of the present Kern River, whatever name it might have borne.

Q Or the prehistoric ancestors of the present race might have called it that?

A It had brought the sands out into the basin that were [**2096**] deposited in marine water and formed a delta.

Q Was the Kern River at that time a fresh or salt water stream?

A Fresh water.

Q Fresh water. We concur.

A I presume.

Q Then the oil sands of the Kern River field were really deposited by fresh water stream running into the valley out of the Sierras, wasn't it?

A I would not say it was deposited by the stream; they were conveyed by the stream into the basin of salt water.

Q And having been conveyed, they were then deposited, were they not?

A Deposited in the water of their own gravity.

Q So that they were then essentially fresh water depositions, weren't they?

A No sir, I can't say that they were. They contain marine shells in abundance.

Q Now, you said that the sands in the Kern River fields extend out into the basin for a distance only of five miles; is that your view?

A It was what I believed at that time.

Q Do you entertain that opinion now?

A It has not been upset.

Q Were the conditions of deposition on the east and west side of the San Joaquin Valley at all similar at the time the Kern River delta was formed?

A Similar in only this: that they were on the borders of the same salt water basin, on opposite borders of the same salt water basin. There were many points of difference between the two.

Q Now, it is a fact well known to geologists, isn't it, [2097] Mr Anderson, that deposits laid down in

large bdoies of salt water are much more uniform, regular and persistent in character than deposits formed by rivers and other local fresh water agencies?

A No sir; I can't say that that is true.

Q Why not?

(The last question is read by the reporter.)

A I don't wish to answer any such general questions as that. If you will ask me a specific question, I think I would be more ready to answer it.

Q Well, you are not going to frame the questions for me, are you, Mr Anderson?

A Not at all.

Q I assume, of course, the right to frame the question, and I will ask you to answer the question as framed. Do you regard the question as intelligible?

A No, I do not.

Q You are unable to answer it in that form?

A No.

Q Now, isn't it a fact that oil-sands of marine origin have been shown to have extended over large areas in regions where there has been sufficient development to demonstrate this fact?

A Possibly.

Q Are not conditions of this kind known to exist in the eastern oil field of the United States, as well as in California?

A No.

Q How about Pennsylvania where the drilling

demonstrated the extent and persistence and uniformity of the oil-sands?

A The conditions in Pennsylvania are very different from what they are in California. I am here to testify as to the character of the land about the Elk Hills and the formations in [2098] the outcrop thereabouts, and in the southern end of the San Joaquin Valley.

Q Have you ever visited the Pennsylvania fields?

A No, I have not.

Q Then, when you say they are different, you get that from reading?

A I do.

Q Isn't it a fact that the field there has been demonstrated to exist in almost circular form; for many miles distant the oil-sands can be traced in persistence and uniformity over great areas?

A The conditions in Pennsylvania are very different from what they are in California.

Q Well, in what respect are they different?

A Well, they are very much older, for one thing.

Q Well, does the age make any difference in the ability to trace the oil sands by the drill?

A Not necessarily.

Q Don't you know it to be a fact, based on your reading, if not upon your experience, that the areas in the eastern oil fields in Pennsylvania have been proven to be extensive and persistent?

A I don't think they are very extensive, but there are many local fields that are scattered over the country, but they are all very local, and each one would

have to be taken up separately and individually. The facts connected with these fields do not afford any basis for such generalizations as you have supposed.

Q Now, you held the opinion, did you not, in 1904, that the sands carrying petroleum content could not be expected to extend out more than two or three miles from the outcrop or shore-line, as you call it? [2099]

A That is right.

Q Was that opinion at variance with the opinion of all competent geologists at that time?

A That was in accord with all the opinions of the geologists, as far as I know.

Q Are you familiar with the Lost Hills?

A I am.

Q How far out from the shore-line which you have described are the Lost Hille?

A About twenty miles.

Q The Lost Hills have been proven to be petroleum bearing?

A Yes.

Q Then, the view which you had entertained in 1903 and '04 has been proven to be erroneous by discovery of oil in the Lost Hills, has it not?

A Not al all.

Q You say, "We found oil-sands extending out twenty miles from the shore-line."

A You are very much mistaken.

Q Didn't you say so?

A No, I didn't.

Q How far out were they from the shore-line?

A About a half a mile; less than a half a mile.

Q What, the oil-sands.

A Yes, the oil-sands that have been tested in the Lost Hills are within a quarter of a mile of the shore-line.

Q. Did the shore-line you speak of run through the Lost Hills?

A Part of it.

Q Ran through the Lost Hills. Well, didn't the shore-line then also run through the Elk Hills?

A No. [2100]

Q The Buena Vista Hills.

A It ran partly through the Buena Vista Hills. There was a local shore-line, as I stated, and we found evidence of unconformity on the axis of the Buena Vista anticline, and we have found evidences also of unconformity on the axis of the Lost Hills anticline, which proves definitely that there was a local shore-line, about an island mass that extended in that position.

Q That was not the shore-line which you referred as existing along the flank of the Temblor Range?

A No, it was a different shore-line.

Q Now, was this shore-line which you refer to running along the flanks of the Temblor Range the same shore-line to which you referred in the Lost Hills?

A No, that is what I say —

Q Was that a local shore-line?

A I say in the Lost Hills there was a local shore-line.

Q There was no local shore-line in the Elk Hills, was there?

A Not that we have any proof of, or any reason to suspect.

Q Well, you have no reason to deny the fact, then have you, either?

A Yes, I think I have.

Q Because you have no proof of it?

A The presumption is against it.

Q Yet you find a shore-line, a local shore-line, along the Buena Vista Hills?

A Yes.

Q But none along the Elk Hills?

A There is none about the Elk Hills that anybody knows of I think. As I stated and as is stated in the Bulletin No. 406, the Elk Hills are of very recent origin. [2101]

Q Is there any outcrop of oil-sands along the eastern flank of the Temblor Range opposite to the Lost Hills?

A Yes.

Q Do those sands persist to and under the Lost Hills?

A No, I think they do not. In fact, it has been proven that they do not.

Q Then, the sands which carry oil in the Lost Hills have no relation whatever, in your opinion, to the sands which out-crop along the Temblor Range?

A They belong to the same epoch, the Etchegoin epoch.

Q Well, do they bear any relation other than belonging to the Etchegoin epoch?

A The stratigraphic plains are carried under the syncline, which intervenes between the Lost Hills and the outcrop in the Temblor Range.

Q Now, why might not the same conditions exist with reference to the Elk Hills and the line of outcrop opposite to the Elk Hills?

A We have no proof that there were any shore conditions about the Elk Hills during the Etchegoin epoch or any one prior to that or since, but we have definite proof that the Elk Hills are of very recent origin; that they represent the last upward oscillation of the land level.

Q Then, in your opinion there was a local shore-line along the Lost Hills lying to the north and west of the Elk Hills, and a local shore-line lying along the Buena Vista Hills to the south and east of the Elk Hills, but none along the Elk Hills?

A So it appears.

Q You had some conversation, you say, with Mr. Owen about the few boulders that were found near Fellows?

A Yes.

Q You say Mr Owen believed those to be glacial deposits? [2104]

A Yes.

Q And that you expressed the opinion to him at

that time that you didn't expect to find any glacial deposit at so low an altitude?

A Yes.

Q That is, lower than an altitude of 5000 feet, in any part of California?

A Yes.

Q Now, in your opinion, were those boulders part of the Etchegoin or part of the Santa Margarita formation?

A Part of the Santa Margarita formation.

Q In your examination of the Kern River field, you found some boulders of granite origin, didn't you, granitic rock? so large as to suggest unusual conditions, perhaps glacial conditions, there?

A No. There are some river gravels in the surface formation about the field, but they are not in any way connected with the oil measures.

Q Now, I call your attention to your statement made in the Neocene deposits of Kern River, 1911, made by you. Page 95, speaking of the Kern River group: "The group often exhibits sudden alterations, the condition changing quickly from sands, shales and so forth to coarse gravels and boulders. Some of the boulders of granitic rock are so large as to suggest glacial or other unusual conditions during sedimentation."

A Yes sir. I remember that.

Q How do you reconcile those statements?

A These boulders, Mr Mills, occur on the Caliente Creek, which is some fifteen miles or more away from the Kern River field and lie back next to the

mountains where the Kern River group curves back with the Caliente gorge next to the granitic basement rocks, and these are in the shore conditions near the [2103] basement rocks. The Kern oil field lies a long ways from that condition. We have in this condition described in this paper a duplication of the same things that occurs in the Santa Margarita group that we have just referred to.

Q At what altitude are these granitic boulders that you speak of found in the Kern River?

A I should say about five or six hundred feet.

Q So that you have evidently undergone a change of opinion —

A Not at all?

Q —Since the time you talked with Mr Owen—

A Not at all.

Q — about the origin of those boulders?

A Not at all. I merely say there that they suggest glacial conditions; but that don't prove glacial conditions and I didn't take them to represent glacial conditions. I only used that figure to give prominence to the unusual occurrence of those large boulders.

Q At the time you made that statement, you had had more experience, considerably, as a geologist, than when you ventured an opinion to Mr Owen in 1903?

A There is absolutely no conflict, Mr Mills, —

Q Had you not?

A — between those two statements.

Q The question is whether you had had more experience at the time you wrote that statement in the bulletin.

A Oh, yes; I had had more experience, to be sure, because this was some years afterwards.

Q Yes.

A But I am not undertaking to say here at all in this paragraph that that represents a glacial deposit.

Q You do, However, state definitely that the boulders of [**2104**] granitic rock are so large as to suggest glacial and other unusual conditions during sedimentation, don't you?

A Yes.

Q Now, Mr Owen may not have been so far wrong in his opinion about the boulders found near Fellows?

A He may not.

Q How far is the place where these boulders were found from the Pine Mountains?

A I should say twelve miles or more.

Q You expressed the opinion at that time that those boulders had come from Pine Mountains?

A Yes.

Q From the south?

A Yes.

Q They were worked along the shore-line, I suppose, according to your theory, by the beating of waves?

A I have no idea how they got there, Mr Mills.

Q Well, would that sound plausible —

A It — Yes.

Q — as a geological opinion?

A I had to admit the force of Mr Owen's statement. He thought that those boulders had been carried by drifting ice, and I said the burden of proof was on him to show that any ice existed at that epoch, or any glacial conditions existed at that epoch.

Q Well, might he not with some force have retorted that the burden of proof was on you to show that those great boulders were carried twelve miles from Pine Mountains?

A He did so.

Q Now, if they came twelve miles, as you ventured to believe at that time, what is to prevent their going still further — [2105]

A There is nothing.

Q — to the Elk Hills, for example?

A It is not on the shore-line. It was not in the current of the floating ice.

Q Well, but you cite the boulders as an evidence of shore-line, don't you?

A Well, I will say, Mr Mills —

Q Is not that part of your opinion?

A You are pursuing an unprofitable course of investigation.

Q From your point —

A From my point of view.

Q Well, we will accept that suggestion from you, and we will still pursue it.

A I want to add here —

Q Well, just answer the question.

Mr Lewers — Allow him to finish his answer.

A What is the question, please?

Q By Mr Mills — The question is, if these boulders could have come twelve miles, couldn't they have gone still further, to the Elk Hills, showing there was a shore line there?

A We have no evidence of their having done so.

Q There is nothing to prevent it, according to your theory, is there?

A There is a theory that the moon came from the Pacific Ocean.

Q I didn't ask you about the moon.

A There is no proof one way or the other.

Q There is also a theory that the moon is made of green cheese, but I am not asking you about that.

A Well, you are asking me what is possible. There are many things possible. It is possible that the moon came from [**2106**] the basement of the Pacific Ocean.

Q. Now, will you please confine yourself, without further digression to the question in hand, Mr Anderson? Just read the question to him please. (The question: "Q—There is nothing to prevent it, according to your theory, is there?", was repeated by the Special Examiner.)

A No; there is nothing to prevent it, as far as I know.

Q Now, at the time you made the first trip into the Buena Vista Hills you came back to McKittrick through that little draw or valley between the Elk Hills and the Buena Vista Hills, didn't you, on the road?

A Yes.

Q And you say you observed some erosion, evidences of erosion, in the Buena Vista Hills at that time?

A Yes.

Q You didn't go into the Elk Hills, as I understand you, until 1911, but saw them as you went by?

A Yes.

Q Did you observe any erosion in the Elk Hills at that time?

A Very slight erosion.

Q What is the difference in the nature of the anticline, the anticlinal arch, of the Elk Hills as compared with the Buena Vista Hills?

A The Buena Vista Hills is a long, narrow, simple anticline.

Q Rather sharp, isn't it?

A In part. The Elk Hills as a whole is rather a broad fold of dome-like character, in the main. There are two subsidiary folds, subsidiary series of folds, one to the north of the main axis and one to the south.

Q The anticline of the Elk Hills is a broader arch, is [2107] it not, than that of the Buena Vista Hills?

A Yes.

Q Now, on the occasion that you were there, I think you stated that you noticed 1500 feet or erosion in the Buena Vista Hills?

A Yes.

Q And some erosion in the Elk Hills at that time?

A Yes; comparatively slight erosion.

Q Was your conclusion reached as to the amount of erosion on that trip or was it from later examinations that you have made?

A Later examinations, chiefly. We only noted the fact that there was a great difference in the amount of erosion in the two areas.

Q But to arrive at any conclusion as to the actual amount of erosion, you did not do that until later examinations?

A No; I never attempted to make any definite comparison until lately.

Q Now, wouldn't the fact that the Buena Vista Hills has a sharper arch of anticline than the broad anticline of the Elk Hills account for the more rapid erosion of the of the Buena Vista Hills?

A Well, no. I think the proper way of accounting for it is difference in age of the two folds, of the two uplifts.

Q Well, you have stated that, but I am asking you now whether or not the sharper anticline of the Buena Vista Hills would not erode much faster than the broad anticlinal dome of the Elk Hills?

A The principal factor, Mr Mills, in erosion is elevation. Not the steepness of dip or sharpness of fold, but absolute elevation, relative elevation, I should say — relative elevation. Now, the Elk Hills rise much higher in altitude [**2108**] than the Buena Vista Hills, and, granting the same length of time for erosion, they would be excavated very much greater than the Buena Vista Hills.

Q Well, isn't it true that one of the elements used

in the calculation of rapidity of erosion is the sharpness or gentleness of the anticline?

A No.

Q Then, you mean to say that a gentle anticline, or one with a gentle arch, would erode as fast, at the same elevation as one of a sharper nature?

A Yes.

Q Erode just as fast?

A Yes. Its elevation is the chief factor in the rate of erosion, or in erosion, and, taken with that, of course, the character of the rock eroded.

Q Have you ever visited the Bellridge field?

A I have.

Q How far out does the Bellridge extend from the line of shore of the Temblor Range, where the outcrop, as you say, exists?

A Well, I had better look at the map. The development in the Bellridge district is, by scale, less than three miles and a half from the Etchegoin shore-line.

Q Three miles, you say? Less than three miles?

A Less than three miles and a half, by scale.

Q If there was a shore-line, Mr Anderson, under the Elk Hills, how far would it be buried?

A Do you mean how deeply it would be buried?

Q Yes. That is, the evidence. How far would the evidence of the shore-line be buried under the Elk Hills?

Mr Lewers — I object to that, on the ground that there is no evidence that there is a shore-line; so how could it be [**2109**] buried?

Mr Mills — There is no evidence that there is not one there.

Mr Lewers — I think there is.

A I wish you would state definitely, Mr Mills, what shore-line you refer to.

Q By Mr Mills — Well, the shore-line in Etchegoin time.

A I should say that it would be more than — if there is one there, it would be more than 3000 feet. But I am not willing to admit that there is one there.

Q What do you consider the best method of attaining success in reaching oil in commercial quantities?

A Actual drilling.

Q Do you think that geologic advice would be of any benefit in the matter?

A It certainly would. I would like to make this general statement, Mr Mills, that will help you. A geologist is usually able to say where oil will not exist, far more easily than he can say where oil will exist.

Q You entertain the opinion, don't you, that the best success and the greatest amount of success in reaching oil in commercial quantities is by the employment of a geologist?

A What is that?

Q By the employment of a geologist.

A Please read the question.

Q That is, a man who is able to interpret the indications, surface indications, the structure of the country?

A In most cases I would advise the employment of a geologist — competent geologist — before any drilling work was begun. That will reduce your difficulty probably to one-tenth, as a general rule, for the simple reason that a geologist can tell you where not to drill, and the places where you should not drill are more than ten to one. [2110]

Q Geologists have the faculty, sometimes of telling people where to drill, don't they?

A They can point out the likely localities far more successfully than an untrained man.

Q Yes. And in entering an untried field, where the structural conditions are favorable, you would expect to advise a company who intended to invest money in the hopes of producing a paying oil well to employ a competent geologist, wouldn't you?

A Please give me that question again. (Question repeated by Special Examiner.) I would advise them to employ a competent geologist before actually expending money in drilling.

Q What indications did you consider, in 1903, with such experience as you then had as a geologist, as favorable indications to the existence of prospective oil territory?

A The outcrop of oil-sands, of course, taken in connection with the dip and strike of the same, and the general appearance of the sand, and the overlying strata, is one of the most favorable, and the occurrence of asphaltum, oil springs and seepages, and so forth, taken in connection with other things is a very favorable indication.

Q Structure?

A And structure.

Q What sort of structure would you regard as favorable?

A Usually an anticlinial structure is the most favorable.

Q And why is that so, Mr Anderson?

A It facilitates the accumulation and retention of oil if the right stratigraphic conditions and other conditions are present.

Q That is to say, assuming that there is oil, in the first place, in the underlying sands, the anticlinaal structure would be the most favorable place for the accumulation? [2111]

A You will have to assume first the presence of sands at all which make the proper stratigraphic conditions.

Q Well, I necessarily assumed that when I was assuming the presence of oil in the sand.

A As I stated once before, there are three or four important factors, the failure of any one of which will probably be fatal.

Q Well, I believe you said there was structure, stratigraphy and presence —

A Available source of oil.

Q Source of oil, and the actual presence of oil?

A Yes.

Q Now, in the Buena Vista Hills, in 1903, you found a favorable structure?

A Yes sir.

Q You found your stratigraphy all right?

A As far as we could tell.

Q In addition to that, you found a gas blow-out?

A Yes.

Q Or oil seepage?

A I didn't say an oil seepage.

Q A gas blow-out?

A Yes.

Q Which you regarded at that time as of asphaltic character?

A Yes.

Q Now, you thought those were ideal conditions for the characterization of that land as highly prospective petroleum land, didn't you?

A I thought those were all favorable conditions for the high prospective character of the land as oil land; yes.

Q And the structure and the stratigraphy being all right, [**2112**] the presence of the gas blow-out was confirmitory, was it not?

A Under the interpretation that we gave it, that it was asphaltum.

Q Yes. Now, assuming that in the Elk Hills we find an anticlinal structure and stratigraphy correct, and a gas blow-out, which you say you have examined, on Section 32 and is of the same character of blow-out as the one in Section 11, the Buena Vista Hills; now, suppose you had gone into the Elk Hills at that time, in 1903, with that evidence before you, would you not then have believed that the Elk Hills were highly prospective petroleum lands?

A No; I think I would not, for there is consid-

erable difference between the two anticlines. In the first instance, there is a difference in the age, that I would not consider; and a difference in the magnitude of the blow-out. The one in the Elk Hills is not impressive at all, while the one in the Buena Vista Hills is decidedly impressive. Then, the fact that I would have had to face would be that it would require more than 3000 feet of drilling to reach anything in the Elk Hills if there was anything there to reach.

Q Well, you would not know that in 1903, would you?

A Why, not from the information I had then.

Q No.

A No; but —

Q Well, I mean taking the information you had then, Mr Anderson, and the conditions which actually existed at that time, wouldn't you then have considered, in view of the structural nature of the fold there, and the other elements and indications including the gas-blow, that the land in the immediate vicinity there was prospective oil land?

A As I stated before, the general position and the general structure of the Elk Hills had attracted my interest from [**2113**] the first, and if I had seen this gas blow-out in 1903 it would have undoubtedly increased my interest in the area and I would have had two indications that I would have considered favorable; but, as it is my practice to be conservative, I think I would have looked further before I would have advised anybody to invest any money in

drilling there in the Elk Hills, and further investigation would have undoubtedly led me to the facts that I have since discovered.

Q Well, you would not, at that time, Mr Anderson, have thrown out the Elk Hills as possible oil lands, would you?

A No.

Q And the evidence that you had at hand indicated the probability of petroleum content, to your mind, under the conditions as you then viewed them?

A No; they didn't.

Q Well, I say, assuming that you had discovered this gas blow-out in 1903, would you not then have entertained the opinion that that was prospective oil land?

A Temporarily I think I would.

Q Yes.

A But I would have looked further and have discovered the conditions that actually exist there and upon which I based adverse conclusions.

Q Now, what were those conditions which you say you might have discovered if you had looked further?

A The conditions that I have already described, the existence of a shore-line, one or more shore-lines, along the flanks of the Temblor Range, the thickness of the sands there, the general drift of the shore, and the geographical fact that the Elk Hills stand out a long way from the position of this shore-line. Then, next, I would have found out the outcrop of the Tulare and Etchegoin beds, which would have been the means of [2114] estimating the thickness of the over-

lying burden to any supposed oil-sands. As I stated before, I very soon discovered before the close of 1904, that in the outcrop of the Tulare beds and Etchegoin beds there was an aggregate thickness of more than 3000 feet, quite 3000 feet, which has been somewhat reduced by erosion. It is only a logical step from that to the conclusion that the Elk Hills would contain even thicker accumulations of the same epoch, And, in 1903, the problem of drilling for oil was not what it is now; it was a much more difficult problem. 3000 feet was outside of the limits of practical drilling.

Q The deposits, I believe you stated, were thicker out in the basin of the San Joaquin Valley than along the shore? Is that correct?

A I stated that I expected them to be.

Q Yes. Now, if there were deposits of shales which were the source of the oil, they would be thicker, wouldn't they, out in the basin than they would be near the shore?

A Why, yes; the shales and the muds would have a thicker stratigraphic body in the central part of the basin, and if you assume that they contained organic matter from which oil might originate, naturally the assumption answers itself— your question answers itself. To suppose that the stratigraphic body is thicker is to suppose that it is thicker.

Q Then the Elk Hills lying out some distance from the line of outcrop would be in a favorable place for the thickening of the diatomaceous beds which

are supposed to be the origin of the oil, would they not?

A Yes.

Q And at what depth was the oil reached in the well on Section 10 of the Buena Vista Hills? I mean the oil-sands. Where were they first reached? Section 10, 32 - 24.

A I believe the oil-sand was reached at a depth of 2500 [**2115**] feet, as well as I recall.

Q. Now, under the conditions which you have imposed, or postulated, against the Elk Hills, you would expect to find the oil-sand at a much greater depth in the Elk Hills, would you not, because of the great amount of erosion which you say has taken place in the Buena Vista Hills?

A I didn't say that I expected to find any sand in the Elk Hills.

Q Well, assuming that there was sand there, oil-sand, in the Elk Hills, would you expect that it would be at a greater depth than in the Buena Vista Hills?

A If you refer to supposed sand of the same stratigraphic origin, for instance the Etchegoin sand, if it occurs at all in the Elk Hills, it would be of greater depth than the Buena Vista Hills, and at the point at which this well was drilled in Section 10, the erosion had reduced the thickness of the beds very greatly.

Q Now, assuming that the copy of the log of the well on No. 1 of the Associated Oil Company which has been introduced by the defense is correct —

A What section, please?

Q In Section 26, 30 - 23.

A 26, you say?

Q Yes. I say assuming that exhibit is correct?

A Yes.

Q Are you aware that that log shows 139 feet of oil-sand between 3,860 feet and 4,027 feet?

A What is the thickness of that?

Q Between those two depths that it shows 159 feet of oil-sand?

A 159?

Q 139 feet of oil-sand. [**2116**]

A Isn't it 159 feet, to be exact?

Q 139. There are some members that are interspersed there.

A Why, I believe in the log that was presented that it shows 159.

Q Well, there was a total of 159 feet.

Mr Lewers — You have a diagram of that haven't you, Mr Anderson?

A I haven't it here.

Mr Mills — You may look at this here (handing to witness.) It should be 159 feet; where it gives the thickness 138 feet it should be 158 feet.

The Witness —I am aware that that record stands in the log.

Q Assuming that to be true and correct, you would have one member of that series, being 58 feet of oil-sand, another 52, separated by 1 foot of hard shell, and then 22 feet of oil-sand separated from the last by 3 feet of sand shell, and then 27 feet of oil-sand separated from the last by 4 feet of hard blue

shale, which would make a total of almost continuous oil-sand of 159 feet?

A That is the way it is represented in the record.

Q Now, what does that indicate to your mind, Mr Anderson, assuming that that is oil-sand and sand carrying oil?

A It indicates a problem that should be tested by actual pumping of the well over a long period of time. Now, if you will permit me, I will give you some hearsay evidence.

Q I don't care for any hearsay evidence. I have got enough of it in the record now. This log is hearsay evidence.

Mr Lewers — I notice you are using it. Whenever you think it is good for you you use it. I notice that is the use you make of hearsay, what you call hearsay. [2117]

Mr Mills — You have introduced it here, and intended to introduce it for certain purposes. I suppose I have a right to cross-examine the witness on what you have produced it on.

Mr Lewers — I know, but you used it before I did.

Q By Mr Mills — Do you think that that amount of oil-sand would be sufficient to interest a man who was interested in the oil business sufficiently to test it? Now, do you know, Mr Anderson, of any place in the Midway field where there is 159 feet of oil-sand?

A No, I do not.

Q And that is the deepest oil-sand that you know

of in the California field, isn't it, right there in the Elk Hills?

A Well, Mr Mills, please don't roar at me or shout at me, nor speak disrespectfully at me in any manner.

Q I am not roaring at you, Mr Anderson.

A I can hear perfectly well, and it is not necessary.

Q Mr Anderson, I don't know that your attitude on the stand gives promise of the fact that you are any clear judge of what courtesy means.

Mr Lewers — Mr. Mills, I object to that. Mr. Anderson very properly took exception to your manner that you perhaps were not aware of. Your question was very loud and unnecessarily so, and in a manner that indicated —

The Witness — If you will speak in the quiet manner of a gentleman, I will answer you in the manner of a gentleman.

(The last question is read by the reporter.)

Mr Mills — Let me state on the record at this point that you, as a witness, have asked to have repeated nearly every question, on cross-examination, I think every question that has been asked you so far on cross-examination you have asked to have it repeated. I am trying to make you hear the question so as to save time, Mr Anderson. [2118]

A Mr Mills, it is not the difficulty with my hearing, but your questions have been long and involved, and I wanted to be perfectly sure that I understood their contents.

Q I don't think you ought to object to my making you hear the questions, Mr Anderson.

A I am perfectly willing to hear. I desire to hear.

(The last question is read by the reporter as follows: "Q—And that is the deepest oil-sand that you know of in the California field, isn't it, right there in the Elk Hills?")

A No, that is not true.

Q Do you know of any oil-sand in California of greater thickness than 159 feet?

A Yes, there are greater.

Q Whereabouts is it?

A In the Kern River field.

Q What is that thickness there?

A The sands are distributed throughout a stratigraphic range of 400 feet, in some instances, and there are a great many logs that represent more than 200 feet of oil-sand, or 250 feet.

Q Do you know of any place in the Midway, Sunset field or the McKittrick field, on the West Side, where there is a greater thickness of oil-sand than that shown by the copy of the log introduced here as to well No. 1, of the Associated Oil Company on Section 26 of 30 - 23, in the Elk Hills?

A Yes, I do.

Q Where is it?

A One of the first logs I obtained in the Midway field was that of well No. 5 of the Midway-Oregon; It showed 170 feet of oil sand.

Q Is that the largest that you know of in those three fields? [2119]

A No.

Q Where is the next largest?

A I haven't tried to remember that fact. I think that I have seen some greater thickness of sand represented than that. The Visalia-Midway represents in two of their logs —

Q Pardon me for interrupting you. Is the Visalia-Midway within the district that I have mentioned?

A Yes, it is in Section 25, Township 31 - 22. The records of two of their wells shows more oil-sand than that of the Midway-Oregon, and I would like to state also that the logs of the adjoining properties show three streaks of oil-sand —

Q Just a minute. That would be hearsay. I am asking for things —

A You have asked for one point of hearsay. May I not give another?

Q I am asking you now, Mr Anderson, if you know, on your own information, of any sands in the McKittrick, Midway, Sunset fields thicker than the sands disclosed by this alleged copy of this log in the Associated Oil Company's well in 26, in the Elk Hills.

A Mr Mills, your question seems unfair. Now, I don't know as you insist on my own knowledge that this log is right.

Q No, I said we assumed that to be correct. We will have to assume that. I don't know myself. I

think that probably this was a copy of a copy, and I am assuming.

A I want to follow, really, the proper view and way of looking at this properly. Now, as I stated in these logs of the Visalia Midway property, they show more than 200 feet of oil-sand, and yet the adjoining property shows only about 20 feet, or at most 25 feet, distributed through three thin beds.

Q I am not asking for a comparison of that with the adjoining property, Mr Anderson. I am very specific. [2120]

Mr Lewers — He has a right to complete his answer. I insist that he be permitted to do so.

Mr Mills — Just a minute. I am going to permit him to finish his answer, of course, as long as it is not objectionable, but I don't think the witness understands me. I want specific instances, to your knowledge, Mr Anderson, in the fields I have mentioned of the thickness of the oil-sands you know of that is any thicker than this sand we are speaking of in the Elk Hills.

Mr Lewers — You have a right to complete your answer, Mr Anderson.

A Mr Mills, you wish me to assume that the sand in the Elk Hills is correct as shown by the records, but when I compared that with other records in the Midway fields you called that hearsay evidence. Now, is that fair?

Q. By Mr Mills — Well, I permitted you to go on and testify. I withdrew that objection, Mr. Anderson.

A Well, the thickest sand that I know by well records is probably that of the Visalia-Midway, and that I have reason, as I stated, to discredit that thickness.

Q Well, then, is there any other well which you know of in the Midway, Sunset or McKittrick fields excepting the two which you have mentioned, the Midway-Visalia and one other of them you mentioned, which has a thickness greater than the oil-sand shown here by this log in the Elk Hills?

A I don't now recall any others.

Q Now, basing your answer on your experience and knowledge of those fields, Mr Anderson, what is the average thickness of oil-sand in those hills as nearly as you can judge now?

A You mean in the Midway?

Q McKittrick.

A McKittrick and Sunset fields.

Q And Sunset fields. [2121]

A The average thickness of oil-sands as it appears to me now is much less than sixty feet in any one body.

Q So that assuming this log to be correct which you say you don't assume, but for the purpose of this question, assuming that to be true, the thickness of oil-sand shown in well No. 1 of the Associated Oil Company in Section 26 is far greater than the average thickness of wells in those three districts, the thickness of oil-sands of the wells in those three districts?

A Yes.

Q In fact, it is more than two times thicker than the average, is it not?

A Yes.

Q Mr Anderson, assuming that the facts when developed will show that oil-sand was reached in the well on Section 30 in 30, - 24 of the Associated Oil Company in the Elk Hills at a depth of 2700 feet, and further assuming it to be true that oil flowed from that well and from that sand until it was shut off by sinking a casing down past the formation, wouldn't that indicate to your mind the probability that there has been as much erosion in the Elk Hills as in the Buena Vista Hills, in view of the fact that the well on Section 10 reached approximately the same depth as those flowing oil?

A I wish to remark that that is rather a long sentence and contains a number of assumptions.

Q Well, it is, Mr Anderson. I don't see how I could split it up very well and contain all the elements of my question.

A I would like to ask, though, to what specific well you refer.

Q I refer to the one on Section 10, in 32 - 24.

A In the Buena Vista Hills.

Q Yes.

A But what other well had you in mind? [**2122**]

Q 26 in 30 - 23.

A I think I will have to answer that question in the negative, for the reason that I can't answer it in the affirmative.

Q That is a good reason, Mr Anderson.

A The fact is, it contains so many assumptions that it is difficult to answer it any way.

Q Well, it is analogous to your assumption that there has been more erosion in the one set of hills than in the other.

Mr Lewers — That is not an assumption, as I take it. That is a statement of fact from observation.

A I think my testimony has been very clear, and with good reason, and there is probably three times as much erosion in the Buena Vista Hills as there is in the Elk Hills.

Q. By Mr Mills — How do you account, then, assuming it to be true —

A It is true.

Q Wait a minute. I haven't finished my question. Perhaps you won't admit it is true when you hear it. Assuming it to be true, Mr. Anderson, that oil was discovered at 2700 feet in the Elk Hills, flowing oil, how do you account for the absence of the enormous thickness overlying the beds?

A I would like to look into the facts in the case, as soon as I can, before I answer that question. You refer to well No. 1 in Section 30, - 24?

Q Yes.

A Please let me look at the record. (Examines record)

Mr Mills — Witness examines copy of the log.

(The question is read by the reporter.)

Mr Mills — Which you have described.

A Well, I will have to answer that in this manner: That as this sand seems not to have been found in the

other [2123] neighboring wells, I would be disposed to regard it as a sporadic sand above the position of the sands that I should expect to exist there, if any did; that is to say, I should not expect this sand that occurs at 2713 feet, as described in the log of this well No. 1, Section 30, to be in the position of the Etchegoin sands represented in the productive fields, McKittrick and Midway.

Q Is that the end of your answer? Have you finished?

(The last answer is read by the reporter.)

Q Then that sand which produces that oil, assuming that it exists and does produce oil in the flowing well at that depth, is not Etchegoin sand; is that what you mean?

A I wouldn't say that it is not Etcheogin sand. The thickness of the Etchegoin beds out here in the position of the Elk Hills ought to be greater than it is in the outcrop about McKittrick, and the outcrop, I have measured it and have other evidences to the effect that it is eight or nine hundred feet thick. The producing sands are at the base of the Etchegoin in the McKittrick and the Midway fields and in the Lost Hills there might be at any point local sporadic sands above that level upon which we could not depend as our source of oil.

Q Well, would you be surprised to find oil-bearing sands at that level in the Elk Hills?

A Yes.

Q And the discovery of oil-bearing sands at 2700

feet in the Elk Hills would seem to upset your theory?

A No.

Q As to the conditions of the underground formations in those hills.

A No; it wouldn't upset my theory, nor would it upset my expectations. It is one of the unexpeccted things, to be sure. The particular sand that you refer to in this well seems to be [**2124**] about 9 feet thick, according to the record, and not to have been found in any of the neighboring wells, so it appears that — at least we have no evidence of its very great extent.

Q You are referring now to this alleged copy of the log?

A Yes.

Q On which you based your answer?

A Yes sir.

Q Now, I don't refer to the log at all in the assumption that I have made, Mr Anderson, and have given you no thickness whatever as to the sand. Does that fit your theory which you have given us here of the conditions as you think they must exist in the Elk Hills?

A While I wouldn't expect those sporadic sands to occur, they might occur and I should interpret this sand that you have assumed as a sporadic sand.

Q. That is, the existence of which I have assumed?

A Yes, the existence of which you have assumed. I should interpret it as a sporadic sand, and it would

not upset the validity of my general reasoning, nor my conclusions.

Whereupon the further taking of testimony herein was adjourned until Monday, February 24, 1913, at 10 o'clock A.M., at the same place.

On Monday, February 24th, 1913, at 10 o'clock A.M., the further taking of testimony herein was resumed pursuant to the adjournment: Willis N. Mills, Special Assistant Attorney-General, appearing on behalf of the plaintiff; Charles R. Lewers, Esq., appearing on behalf of the defendants. [2125]

FRANK M. ANDERSON,

recalled, CROSS-EXAMINATION resumed.

By Mr Mills:

Q You know, do you not, Mr Anderson, of your own knowledge, that petroleum has been discovered in the Elk Hills and in the even sections of land adjacent and interspersed with the odd sections of land in this suit?

A Well, interspersed with some of the odd sections.

Q Yes.

A Towards the southeastern part of the township.

Q And from your examination of the lands in this suit which you made you can now state, can you not, that the places where the oil has been discovered by the Associated Oil Company are near the axis of the anticline?

A Yes; they are reasonably near the axis of the anticline.

Q And that the wells which you observed on the fringe of the hills and which you said were not in operation at the time you visited those hills in 1912, are remote from the axis of the anticline and in more unfavorable places for the discovery of petroleum at moderate depths?

A Many of them are remote from the axis of the anticline, and all of them are in very unfavorable position, even those on the anticline.

Q So that if proper advice had been given for the location of those wells you think that a greater amount of success could reasonably be expected?

A I think these operators followed the advice of the United States Geological Survey. That may be good or bad. I don't know how you would classify that.

Q Well, you refer by that, I assume, to the geological Bulletin 406?

A Yes. [2126]

Q You don't mean to say that the Survey sent out geologists to tell them just where to locate those wells, do you?

A Why, as I understand, there is a statement in this Bulletin that oil would be found probably along the axis of the anticline within a distance of nine hundred to fourteen hundred feet from the surface, and everywhere within the limits of the Elk Hills within a distance of two thousand feet. This was a general, blanket statement.

Q That was a general statement, you mean?

A Yes.

Q What I mean is, you don't mean to say that the wells were actually located on the ground by specific advice from the Geological Survey in any instance, do you

A Well, no; I don't know that they were, but I do know that many of these operators followed this general suggestion or advice contained in this bulletin.

Q Yes. Just a minute. The particular location of any one well among those which have either been started or brought in in the Elk Hills was not due to any specific advice from the Geological Survey?

A Not that I know of.

Q No. Now, assuming that the exhibits introduced during your evidence, which consist of alleged copies of logs, which you say you examined and on which, as I understand you, you in part formed your opinion, are correct, the greatest amount of success achieved in the sinking of wells was on lands which were contiguous and adjoining and interspersed with some of the lands in this suit, were they not?

A Yes; they were on Sections 24 and 26 in Township 30 - 23.

Q And on 30 of 30 - 24?

A Yes, 30 of 30 - 24. That is, they to some extent [2127] border on Section 25 of 30 - 23, lie somewhat within the triangle formed by these three wells.

Q The wells located in Sections 24 and 26 of the Associated Oil Company also adjoin, beside Section 25, in the same township, Sections 23, 27 and 35, in this suit, do they not?

A Now, part of that I didn't hear. I would like to have the question read. (Question read by the Special Examiner.) Sections 24 and 26 adjoin Sections 23, 25 and 35.

Q And 27?

A Corner with 27.

Q Does not 26 adjoin 27?

A Yes; yes. That is right.

Q Yes. Now, the Standard Oil Company, to your knowledge, owns Section 36 in this township, which adjoins 25 and 35 of the lands in suit?

A No. This is the first time that I heard that they owned 36 at all.

Q You don't know that?

A I do not.

Q Well, you don't mean to say that they do not? Simply that you have not heard it.

A I don't know anything about the matter.

Q You know that the Associated oil-wells on 22 adjoin sections, in addition to some of the sections we have named — adjoin also Sections 15 and 21 in this suit, do you not?

Q The Scottish Oil Fields Limited well adjoins 21, 17, 19 and 29 of the lands in this suit?

Mr Lewers — That is in Section 20, isn't it?

Mr Mills — Yes.

A I believe so.

Q And the Hill Crest and Redlands well adjoin, besides [**2128**] 21 and 19, Sections 29 and 33 of the lands in this suit? The Hill Crest is on 28?

A Yes.

Q It is part of your theory, is it not, Mr Anderson, that petroleum is not obtained from fresh water-beds?

A I believe I didn't say that.

Q Well, I ask you now, is it true?

A I stated that to my knowledge petroleum was never originated in fresh water beds; that is, in commercial quantities. I think it has originated in limited quantities in fresh water beds; but I don't know of any producing wells.

Q Now, assuming that you are correct in the statement as you have amended it, then the oil in the Elk Hills which has been discovered must have come from marine beds underlying the fresh water beds which you have stated form the surface deposits?

A Yes. That is, I will have to amend that now. It is possible that some of the oil that has been found in the Elk Hills has migrated from marine beds into fresh water beds.

Q That is, they have migrated vertically?

A Well, they might, to a very limited extent, migrate vertically.

Q So that, if that is true, your statement on direct examination that the oil does not migrate vertically is to be amended with respect to the Elk Hills?

A I did not state that oil did not migrate vertically. I said that it would migrate laterally along the bedding-planes far more readily than it would in any other direction or vertically.

Q But it will migrate vertically, and has done so in the Elk Hills?

A To a limited extent I presume that it may anywhere. [2129]

Q Well, when you say "limited extent", you don't really know to what extent it has migrated, do you?

A Well, I would not expect it to migrate very far. Possibly one hundred feet or a little more.

Q You are aware, are you not, that oil has been discovered in the Elk Hills in large amounts at depths of 2700 feet?

A No; I am not.

Q Now, assuming that to be true, Mr Anderson, would not that indicate to your mind that the fresh water deposits in the Elk Hills are not much over 2500 feet thick?

A I have not testified that they were over 2500 feet thick, and that is about as thick as I expected them to be.

Q That is, the fresh water deposits in the Elk Hills?

A Yes. That is, rather, I think that they would fall within 3000 feet in thickness. They might be a little more than 2500 feet in thickness. That is a matter that has not been proved at all.

Q Now, you stated, at page 4985 of the record, that in 1904 you made two measurements in fresh water beds on the West Side and that the thickness at one point was something over 2100 feet and that you had reason to believe that the total thickness had been greatly reduced by erosion.

A Yes.

Q Now, don't your own observations tend to indi-

cate that the thickness of the fresh water beds in the Elk Hills is essentially the same as that in the West Side field?

A No.

Q Now, I notice further, on page 84 of your bulletin on the Neocene deposits, Kern River and Temblor Basin, you say, speaking of the Neocene series deposited in the Kern River field, that in the deep wells the thickness of these beds is naturally somewhat less, since their positions are farther [2130] from the shore-line. Does not this indicate that the truth of the matter is that if there was any substantial change in the thickness of the beds as the middle of the basin is approached, that there will be a slight thinning rather than a thickening, as you would have the court understand from your testimony?

A This paragraph takes account of the fact that in the Kern River area and in this delta condition the beds are very largely sandy.

Q Now, pardon me for interrupting you. The question is, and I think you should answer that question first and any explanation you want to make afterwards — the question is, Does not that indicate that the truth of the matter is that if there is any substantial change in the thickness of the beds as the middle of the basin is approached, that there will be a slight thinning rather than a thickening?

Mr Lewers — I think the answer is responsive.

A In this particular case; but it will require an explanation.

Q By Mr Mills — That is all right. Answer the question and then go on with your explanation.

A Now, the explanation is that in the instance dealt with in this paragraph the beds in the limits of the delta formed here are very largely sandy and the sandy element diminishes rapidly toward the west and that does reduce the aggregate thickness of the beds. Delta conditions, however, are exceptional, and they are not represented on the West Side fields at all, nor do they represent the normal state of affairs within any basin. Delta conditions are exceptional and must be treated as such, and the conclusions derived from such conditions, the study of such conditions, are not applicable to all conditions and would not be applicable to this area on the [**2131**] West Side.

Q Now, if, as you have stated, fresh water beds would be expected to thicken as you approach the middle of the basin, is not the same thing true of the oil-sands and at the base of the formation?

A No; that is not true. I stated that the muds and clays would thicken toward the interior of the basin, and the tendency is always in a basin of limited extent to build up a thicker series of sediments but they are largely clays and muds. The sandy elements diminish very much, if they are even present at all.

Q How wide is the basin to which you have referred at the point where the line running across the basin would intersect the Elk Hills and the lands in this suit?

A Approximately forty miles; forty-five miles, possibly.

Q And the nearest point where the Elk Hills approach the Temblor front is about six miles, isn't it?

A The nearest point on the anticline of the Elk Hills is about —

Q I didn't ask you about the anticline. I said the Elk Hills; where they begin the uplift.

A Let me finish my statement and I think it will answer your question. The nearest point on the anticline is about six miles. The foothills of the range come a little nearer to the shore-line of the Etchegoin on the flanks of the Elk Hills.

Q How much nearer?

A The nearest approach of the foot of the Elk Hills to the shore-line is about four miles.

Q Now, the Elk Hills, then approaching as close as that to the old shore-line which you speak of, where the outcrop of the oil-sands appear along the eastern flank of the Temblor [**2132**] Range, are in a favorable position to receive the accumulation of sand deposits which you have mentioned in great thickness?

A I think not.

Q And the alleged copies of logs which have been introduced here during your testimony tend to prove that statement to be true, do they not?

A No; I think they do not.

Q That in one well, at least, sunk by the Associated Oil Company, there is 159 feet of oil-sand from the 2700-foot level down?

A Not from the 2700-foot level.

Q Well, from what level?

A I will have to refer to the log.

Q Isn't it true they struck oil there at 2500 feet, or thereabouts, in one of the wells of the Associated Oil Company, and that from there on there was 159 feet of oil-sand?

Mr Lewers — Which one are you referring to, Mr Mills?

Mrs Mills — I refer to the well on Section 26 of 30-23, known as well No. 1.

A And what is your question, Mr Mills?

Q Well, I will ask you this question, now. Isn't it true that in well No. 1, of the Associated Oil Company, Section 26 of 30-23, oil-sands were struck at about 3700 feet and continued from there down for 159 feet almost continuously?

A No; I believe not.

Q Showing sands containing oil?

A I believe not. I think that you have the wrong figure yet. It should be about 3860 feet. I can't tell exactly.

Q Well, I am including here the formations which show oil in my question.

A Well, that is not reported in the log as oil-sands. [**2133**]

Q Well, there is formation there including oil-sands and shales showing oil for 159 feet from about 3700 feet down. Is not that true?

A There was a little oil showing in the shales from about 3720 feet down to the bottom.

Q Now, what proportion from the bottom going

up, that is, from 4000 to 4027, as appears by this exhibit, is oil-sand? That is, how many feet solid oil-sand?

A From the bottom of the well up, according to the record that we have here, there is an aggregate of about 159 feet of what has been called oil-sand.

Q Now, beginning from the bottom, the drilling of the well was stopped at 4027 feet, according to this exhibit, after they passed through 27 feet of oil-sand. Immediately above that, 4 feet of hard blue shale showing oil, then 22 feet of oil-sand; then 3 feet of sand shell and 52 feet of oil-sand; 1 foot of hard shell and 58 feet of oil-sand — which makes 159 feet of almost continuous oil-sand.

A 159 feet of what was called oil-sand.

Q Yes. And that you regard, do you not, as a considerable showing of oil-sand, taken in connection with the theory which you announced on direct examination?

A It is a considerable thickness of sand, if it is sand, and of oil-sand if it is oil-sand.

Q Yes.

A But that does not tell us anything as to its productive capacity.

Q Well, I am quite aware that the log suppresses considerable information as it has been introduced here by the railroad company, Mr Anderson.

Mr Lewers — I except to that remark as being entirely unnecessary and intended to be insulting, and without foundation. [2134]

Mr Mills — Oh, it has foundation, Mr Lewers, you will find disclosed, before we get through.

Mr Lewers — Well, I know it hasn't.

Q By Mr Mills — Now, assuming that the log, even with its limited information, is true, you find, then, 159 feet of oil-sand, according to the various statements of the log, don't you, almost continuously?

A Yes; as it is stated in the log.

Q That does not fit well with your theory, does it, as you have announced here, that there would be a very thin amount of oil-sands in the hills?

A The record as it stands in the log does not seem to harmonize with my theory; but I have some reason to doubt the fact that there is oil-sand there or that it has this thickness.

Q Well, but this log has been introduced during your testimony, or during the testimony of Mr Luke, on behalf of the defendants, as showing the exact conditions in that well, and the questions which have been asked you have been based upon the truth of that assumption. As it stands now, assuming that it is true, it does not fit at all with your theory, does it?

A No; it does not fit my theory very well to see so much sand as represented in this log.

Q Now, you stated, I believe, on direct examination, Mr Anderson, that the thickest sand which you knew of in the Midway field was about 40 feet but you had no distinct recollection of the logs. Later, on cross-examination, you recalled the fact of two logs, I believe, one in the Midway-Oregon, was it?

A Midway-Oregon.

Q And the other in Midway-Visalia?

A Visalia-Midway.

Q Yes. Which apparently had in excess of the amount of oil-sand as shown in well No. 1 that we have just been referring [**2135**] to on Section 26 of 30 - 23. Those wells which you examined on the Midway-Oregon and Visalia Midway didn't show continuous sand, did they, but were there not intervals of hard shell and blue shales?

A No; as I recollect them they were bodies of continuous sand, or so represented in the logs.

Q Then this showing made by the Associated well No. 1 on Section 26 of 30 - 23, is the third largest oil-sand showing in those three fields, to your knowledge, that is, the McKittrick, Sunset and Midway?

A No; I am not prepared to say that, Mr Mills. This is the third largest of those that were mentioned.

Q Well, it is considerably larger than the average, I believe you said, in the Midway field?

A Yes.

Q The average there is about ten or twelve feet, isn't it, in the Midway?

A No; I think it is thicker than that.

Q How much would you place it at?

A Well, I believe I said that the average was somewhat less than 60 feet, of oil-sands.

Q In the Midway field?

A Yes.

Q Is that your recollection now of the fact?

A Yes.

Q Are not most of the producing wells there of an average thickness of less than 40 feet oil-sand?

A I don't recall any data from which I can answer that question, Mr Mills. That might be the fact.

Q Well, at any rate, assuming this log to be correct, Mr Anderson, you will admit, won't you, to be fair, that the showing of oil-sand in the well of the Associated on 26 of 30 - [**2136**] 23 is really a magnificent showing of oil-sand compared with other wells in those three fields?

A No; I am not prepared to say that that is a magnificent showing of oil-sand, even granting this thickness of sand to exist in the well as shown in the log of this No. 1 on Section 26, 30 - 23.

Q But, from your own statement, it is nearly 250 per cent greater than the average sand showing in the Midway field, one of the largest fields in California?

A Yes; but, Mr Mills, there is another factor to be taken into account in judging of the merits of oil-sands.

Q I am not asking you about the merits of oil-sands. I am speaking now of the thickness. We will get at the production later on. Confining your answer, now, to the thickness of that sand, aren't you willing to state that where a sand shows in the Elk Hills more than two hundred and fifty per cent greater than the average oil-sand in the Midway field, where they have produced the largest oil-wells in California, as a magnificent showing of oil-sand, as to its thickness?

A Well, it is a surprising thickness of oil-sand; yes.

Q Yes. Now, assuming that it is true, Mr Anderson, that the well on Section 24 of 30 - 23, Associated Oil Company, struck oil formations — and by that I mean oil-sands — at 2750 feet, and continued then to 3160 feet; that the well on 26 of 30 - 23 struck oil formations at 3138 feet, and continued to 3500 feet; and that the well on 30 of 30 - 24 struck oil at 2700 feet, and continued to 3050 feet; and that the indications on all three wells were practically the same, indicating in all likelihood that they were in the same formations; Would not that indicate to your mind that the sands in which oil has been discovered in those three sections of land are persistent and continuous for a great and considerable distance but practically at the [**2137**] same level?

A No sir; I think your question assumes too much and your assumptions are contrary to the showing of these logs.

Q Well, now I am not paying any attention to the showing of these logs, Mr Anderson. I have asked you to assume that those facts which I have given you are true. Would that not indicate to your mind that those sands were persistent at about the same level and same thickness for a great distance along the axis of the anticline in the Elk Hills, particularly on the lands in this suit?

Mr Lewers — To which we object on the ground that the original question of which this is merely a partial re-statement makes the logs part of the as-

sumption, and the former answer is necessarily responsive.

Mr Mills — No, I have not mentioned the logs in this question at all.

A I don't see that I can answer your question, Mr Mills, in any way.

Q By Mr Mills — Why can't you answer the question?

A Because it is involved, and it involves assumptions that are contrary to the showing, and there is a double question or two or three questions involved.

Q Well, would you say, Mr Anderson, that if Mr Williams, the geologist of the Associated Oil Company, made oath to the facts contained in that statement, that it is contrary to the showing made in those wells?

Mr Lewers — To which I object on the ground that Mr Williams has not been called as a witness in this case, and has not made any oath at all in this case; an assumption without a foundation.

Mr Mills — I wish to announce to you that we shall put in evidence a statement under oath by Mr Williams to the effect [**2138**] that those facts are true, and that that is the showing in those wells, Mr Lewers.

Mr Lewers — I understand that you may try to, but this is not legal evidence. I understand Mr Williams was here under legal subpoena and was not put on the stand by the government during the presentation of the government's case.

The Witness — I couldn't answer that question,

Mr Mills, because I don't know anything about the evidence in the case.

Q By Mr Mills — Well, now, I was assuming it to be true. And the facts which I have given you concerning those wells, doesn't that clearly indicate that those sands are about the same thickness, found at about the same levels, and are persistent and uniform along the axis of the anticline?

A I can't answer that question.

Q Why can't you?

A Because I think you have assumed things contrary to the fact, and you have assumed a number of different things that I cannot answer.

Q I will state to you now, Mr Anderson, that I have not assumed anything contrary to the fact; but even if I did assume a thing contrary to the fact, I could ask of you an answer upon that assumption.

Mr Lewers — I object. I object to repeating the question on the ground that the original assumption, as I understood it, did involve the logs, and if it did not, I object on the ground that the question is vague and indefinite, inasmuch as it does not contain any statements of fact upon which an answer could be based, unless the logs are referred to. If you will make an assumption that is intelligible, why it could be answered, but I don't believe now you know just what your assumption was.

(The question: "Q—Now, assuming that it is true, Mr Anderson, that the well on Section 24 of 30, -23 of the Associat-[**2139**] Oil Company, struck oil formations — and by that I mean oil-sands — at

2750 feet, and continued then to 3160 feet; that the well on 26 of 30 - 23 struck oil formations at 3138 feet, and continued to 3500 feet, and that the well on 30 of 30 - 24, struck oil at 2700 feet, and continued to 3050 feet, and that the indications on all three wells were practically the same, indicating in all likelihood that they were in the same formations: Would not that indicate to your mind that the sands in which oil has been discovered in those three Sections of land are persistent and continuous for a great and considerable distance but practically at the same level?" was read by the reporter.)

A I will have to answer that question in the negative, Mr Mills. But I would like to add a little in explanation: I think that the formations specified in these three wells may be approximately the same, and that within the limits specified oil and indications of oil have been found, but I think the assumption that this formation is oil-sand is incorrect.

Q Well, I am not asking you to make these assumption, but I am asking you to take my assumptions as correct, Mr Anderson. Are you so prejudiced in this case that you won't assume what I give you in a question, Mr Anderson?

A No, Mr Mills, I am not prejudiced in the case. I desire to tell the truth.

Q Why do you always say that the assumption is not according to the fact? I am assuming this to be true. Now, you claim to be a scientific man, and you ought to know what a postulation is.

A Yes, I am willing to consider your assumptions as assumptions, without any prejudice.

Q Now, the well on Section 30 of 30 - 24 is practically two miles from the well on Section 26, as to which I gave you [**2140**] those depths, is it not?

A Yes.

Q And is approximately a mile and a half from the well on Section 24?

A Yes.

Q And the well on Section 24 is approximately a mile and three-quarters from the well on Section 26?

A Something like that.

Q Yes. So if it is true, as you say, that the formations are practically the same, that there is a persistence at least proven, assuming those facts to be true in that question, of an area covering several miles in extent along the axis of that anticline in all directions.

A No, I wouldn't say that. I could not conclude that there was an area covering several miles. The longest dimension you have mentioned is two miles, and that could hardly be called several miles, and it extends only in one direction, and that wouldn't include every direction.

Q Well, the well on 24 would include the complete triangle, wouldn't it?

A It would complete the triangle.

Q And that would make all directions, wouldn't it?

A There is a triangle defined or outlined by these

three wells in which we might expect the conditions represented in the logs to prevail.

Q Yes. Now, that would indicate, then, at least to your mind, that the persistence and uniformity of that formation passed through Section 25, because it is proven in two different directions?

A Yes, I would say so.

Q What is to prevent, then, the same formation to pass on into 27 from the well on Section 26 and into 23? [2141]

A It might possibly do so, but there is nothing in the evidence or discovery to show that it does do so.

Q Now, I understand your position. There is nothing, then, to prevent it to pass, the same formation to pass on through all the sections of land in this suit, which are on the axis of the anticline, or anywheres near it, so far as you know, is there?

A It might possibly do so.

Q And if it did do so, it would thus prove the presence of enormous thickness of oil-sands underlying the sections of lands in this suit?

A No sir.

Q If it passed through all those sections, you say it wouldn't prove that?

A I understand you are referring to the formations that you specified in these three wells?

Q Yes sir.

A I believe all of those formations which you have specified in the three logs are approximately the same, Mr Mills. The formation as a stratigraphic body would probably continue over the entire area

you name, but the condition of making showings of oil is another matter.

Q Well, leave that matter out. Don't be so alarmed about the possibility that I will show a production of oil here, Mr Anderson.

A I am not alarmed. You ask in this last question if that would not carry with it the assumption or fact that there would be a considerable thickness of sand?

Q Yes sir.

A Now, there is no great thickness of sand shown in the record of those wells in the limits you have mentioned.

Q Isn't there a thickness of 159 feet of solid oil-sand [**2142**] shown according to the log of Section 26?

A You didn't include that in your original assumption.

Q Isn't it a fact that that much is shown by the log that you just have based your opinion on?

A Not within the limits of the formation that you have defined in your assumption.

Q That is true, but there is that thickness of sand at some point on that log, isn't there?

A Well, according to the showing, yes.

Q Now, I say that, assuming that the wells which have proven the thickness of the oil-sand on these three sections of land have been shown to be in existence at those elevations, and at those thicknesses, then we have a condition of proven oil-sand for a considerable distance along the axis of that anticline?

A Well, I don't think so. Possibly I cannot follow your question. As I understand it, you defined in your original assumption a certain body or strata within these three wells. I am willing to admit that that body or strata might extend, and probably does extend over the entire area of this township; but I cannot carry — I can't see anything in this from which I could conclude that the possible oil-sand would have the same extent.

Q Well, I have assumed that these are oil-sands, Mr Anderson, in my question. Now, if they extend over the entire area, they would still be oil-sands, wouldn't they?

A If you have assumed that they are oil-sands and they continue over the entire area, then, of course, according to your assumption, the oil-sands would extend that far, since you have assumed that.

Q I have not assumed that they extend over the entire area. I have asked you that question, and you have said that [**2143**] they probably would extend over the entire area.

A Yes.

Q Now, assume that in well No. 1 of the Associated Oil Company on 30 of 30 - 24, struck oil-sand at 2700 feet, and that oil-sand was encountered from that distance down to 3450 feet, or an interval of 739 feet, of which the oil-sand itself, excluding the shales containing oil, amounted to 572 feet in thickness, almost continuously, wouldn't that indicate to your mind the best oil showing, to your knowledge, anywhere in any field in California?

A It is rather a long question, and I would like to understand it fully before I answer. May I have it repeated?

(The last question is read by the reporter.)

A I wouldn't say that it makes the best oil showing, for thickness of sand is not necessarily an oil showing.

Q Well, I have assumed that these sands contain oil, they are oil-bearing sands. Now, on that assumption, wouldn't you conclude this to be the best showing ever made in California?

A No, I would not.

Q For what reason?

A Because a showing of sands carrying oil shows nothing as to its quantitive value. A sand carrying oil may carry it in very sparing quantities, and it remains to be proved even then what the production capacity of that sand is; and I can't say that it is a good showing of oil at all.

Q Did you ever make any test of the porosity of the sands in those wells?

A Not in these wells; I have in similar wells.

Q Of any wells in the Elk Hills?

A No.

Q Have you ever made any comparison, by experiment, with the sands of these wells and the sands of other wells? [2144]

A I have.

Q As to their porosity?

A Yes.

Q I thought you said you never made any examination as to porosity of these wells.

A I misunderstood your question. I will have to amend that. I have never tested these sands at all, but as they are represented in the log, and as I know other sands, I have compared them, the general formation —

Q I just asked you the question whether you had or not, Mr Anderson. As I understand you, then, you have made no examination for the purpose of testing the porosity of the sands in the Associated oil-wells?

A No, I have not.

Q Now, assuming that, notwithstanding the copy of the log to which you continually refer to Section 30 of 30 - 24 does not give the information, that that well, according to the real log of the well, was placed on the pump at 2360 feet on January 22, 1912, with an approximate production of 350 barrels for each 24 hours, wouldn't that indicate to you excellent signs of valuable oil territory, taken in connection with the depth of sand which I have assumed in the first question? (The last question is read by the reporter.)

A I will say that if, as a matter of fact, the well was placed on the pump, and pumped from this formation on the dates mentioned, or near the dates, and made the showing you mention, it would be very interesting showing, and would yet prove nothing of quantitive value.

Q You would dismiss it with the statement that it would be interesting. It would not have any indica-

tion to your mind of even prospective oil territory, would it?

A Yes, it would. [2145]

Q Oh, it would indicate that much?

A It would, and I would think —

Q Now, assuming that the well —

Mr Lewers — Wait a minute. Let him complete his answer.

A I would think that it would be a very proper thing to make a prolonged test of that to see whether the well would actually sustain a production over a long period of time.

Q By Mr Mills — Well, assuming that for some reason best known to the company which brought in that well, the well was shut down, and that reason was not because of its failure to produce at all times, would you take that showing of several days, we will say four or five days at 350 barrels a day, as an indication, with an increasing volume each day, of valuable prospect oil land?

A Yes, it would indicate valuable prospective oil land, and should be looked into as such.

Q Now, wouldn't that land and the land immediately contiguous to it, on that showing, assuming it to be true, have an immediate, prospective commercial value for oil?

A By assuming those facts to be true, or those statements to be true, it would indicate that this land in the immediate vicinity would have a prospective value for oil land, and would indicate that it should be thoroughly tested.

Q Well, wouldn't it indicate that it had a prospective commercial value?

A Yes.

Q You have referred, Mr Anderson, to the well on Section 7 of 31 - 24, which I believe is called the Elk Hills Oil Company's well?

A Where did I refer to that?

Q Did you ever refer to that on your direct examination?

A I think not. [**2146**]

Q Did you ever visit the well?

A I did.

Q While we are looking for the log, Mr Anderson, let me ask you a question: And in that connection, with that showing, would you not conclude that these lands in the immediate vicinity of that well were chiefly valuable for their oil?

A You are referring to well No. 1 in Section 30?

Q Yes.

A Why, assuming that the statements that you make are true, it would give a high prospective value as oil land, to lands immediately contiguous to the well.

Q And from your knowledge of the conditions, that is, surface conditions there, the general character of those lands, wouldn't you conclude that their chief value would be for petroleum, under those conditions?

A Well, no, I wouldn't. I only would admit that they had a high prospective value for oil, but I wouldn't be willing to state that they had an absolute

value for oil in commercial quantities, or that that was the most valuable feature of the land.

Q Do you know of any mineral value which the land would have greater than its prospective value for petroleum?

A Well, I don't know what its prospective value for petroleum is, quantitively.

Q I am assuming, now, that the facts which I have given you are true, that is, the basis of the prospective value.

A Yes, but prospective value is not definite as to quantitive.

Q Let me state it this way, Mr Anderson: With that showing, assuming the facts to be true which I have given you, and with that showing, you have stated that you would regard those lands immediately contiguous to have a highly prospective [**2147**] value for petroleum. Now, wouldn't you conclude also that they would be chiefly valuable for that reason?

A Yes, I think perhaps they would; that is, the prospective value as oil land is greater than its prospective value for any other thing, if that is what you refer to.

Q Yes. Now, haven't considerable sums of money been spent on other reports in California oil fields under less favorable conditions than those assumed by me in my question?

A Undoubtedly.

Q Without a reasonable expectation, too, of producing a paying commercial oil-well?

A Well, I can't say how reasonable the expecta-

tions are. I have known many wild-cat wells being drilled where there was no reasonable prospect of getting anything, from my point of view; the Standard Oil Company and all the large oil companies operating in this state have drilled wild-cat wells where I felt thoroughly satisfied that they had no reasonable chance of getting anything.

Q And on much less evidence than is contained in the assumptions of fact which I have given you in my questions?

A Yes.

Q That is to say, assuming those facts to be true, a man would be justified on that showing in expending large and considerable sums of money, with a reasonable expectation of producing a paying oil-well, would he not?

A Well, I think the reasonable course would be to test the productive capacity of the well before any other money was spent.

Q Now, Mr Anderson, on the showing as I have given it to you, now trying to confine your mind just to those facts, and to assume them to be true, wouldn't that be sufficient, in your opinion, to warrant an ordinarily prudent man in the expenditure [2148] of a considerable sum of money in the hope of producing a commercially paying, profitable oil-well?

Mr Lewers — Is that an assumption on three or four days' production? Are you assuming with that assumption?

Mr Mills — Well, I decline to answer that ques-

tion, because the question has been repeated here five or six times, and he ought to be familiar with it.

Mr Lewers — I want to know, and I think it is right that we should know.

Mr Mills — Make your objection and let's get ahead.

Mr Lewers — I am simply asking if you are making that assumption now or some other assumption; you assumed several different conditions, varied your assumptions.

The Witness — I understand you.

Q By Mr Mills — Now, can you answer that question.

A I believe I did answer it, and I stated that I thought the reasonable thing to do would be to put the well on the pump and make a test extending over a long period of time before any further money was spent on theadjoining ground.

Q Well, now, Mr Anderson, you know of considerable sums of money that have been spent under the advice of geologists, do you not, in California, in drilling wells where they have less showing than I have given you here?

A Yes.

Q And with a reasonable expectation of producing a profitable, commercial oil-well?

A Well, I can't say how reasonable. From my point of view it is hardly reasonable to sink some of the wild-cat wells that I have known, or many of them. Now, I know of a specific case in which the Standard Oil Company sank two wild-cat wells on

the basis of anticlinal structure alone, and they had no reasonable chance of getting anything, for I knew the [2149] formation, and if they had asked me I would have discouraged the whole thing.

Q Well, do you apply the words "wild-cat well" to a well which would be sunk alongside of a well which made that showing?

A Well —

Q Or is every new well a wild-cat well, in your opinion?

A Well, I would consider a well sunk anywhere more than a thousand feet from this well to be a pioneer well.

Q Well, now, we will take your adaptation. On the showing which I have given you, assuming those facts to be true, do you think a man would be justified in the expenditure of money in sinking a pioneer well on those lands, with a reasonable hope or expectation of producing a commercially paying oil-well?

A I think the reasonable thing to do in this case would be to test this well, to find out if it is satisfactory.

Q Answer the question yes or no.

Mr Lewers — I submit he has answered.

A The proposition of defining what is reasonable or unreasonable is a very difficult one, Mr Mills.

Q By Mr Mills — I speak of a reasonable hope or expectation upon that basis.

A Upon my definition of "reasonable", it would not. The reasonable thing is to test this well before you proceed any further anywhere.

Q Well, suppose the well belonged to another man who would not permit you to test it, and you owned land near it, within a thousand feet; do you think you would be justified in spending money in sinking a well within a thousand feet of that well with that showing, with a reasonable expectation of producing a paying oil-well?

A I think I would let somebody else sink it if they felt [2150] disposed to; I would not.

Q And yet you say that you know of geologists who have recommended the expenditure of money in considerable sums in sinking wells unless evidence than that?

A I don't think I said that. Where did I make that statement?

Q You made that statement in the record, that those wells had been sunk on the advice of geologists. Do you know Mr Ochsner?

A Yes.

Q My Ochsner is a geologist, is he?

A Yes sir.

Q And to your knowledge has he not recommended the expenditure of some $150,000 in the sinking of a well on considerable less evidence than is found in the Elk Hills today?

A I don't know how much money he has recommended to be expended. I don't know exactly what you refer to, Mr Mills.

Q I refer to the well in the Kettleman Hills. Were you present when he testified?

A No, I was not.

Q Well, now, he testified that he has already spent on behalf of friends whom he has induced to go into the proposition with him, and other associates, the sum of $147,000 in a well in the Kettleman Hills, and has sunk the well now a depth of about 4300 feet, and has found no oil, and he still intends to go on and expend more money to sink that well deeper. Do you think that he is as much justified in doing what he is doing there with the evidence that you know exists in the Kettleman Hills as a man on the facts which I have given you, in the Elk Hills?

A That is a pretty general question, Mr Mills, that I [2151] should not like to answer. There are many circumstances connected with the two propositions not specified in your assumption.

Q Well, I am limiting it to the specific statement in the assumption. Don't you regard that as being evidence, more conclusive evidence to justify a man in sinking a well there than in the Kettleman Hills?

A Other things being equal, it is.

Whereupon the further taking of testimony herein was adjourned until 2 o'clock P.M., at the same place.

On Monday, February 24th, 1913, at 2 o'clock P.M., the further taking of testimony herein was resumed pursuant to the adjournment: Willis N. Mills, Special Assistant Attorney-General, appearing on behalf of the plaintiff; and Charles R. Lewers, Esq., appearing on behalf of the defendants.

FRANK M. ANDERSON,

recalled, CROSS EXAMINATION, resumed.

By Mr Mills:

Q Your opinion of the character of the lands in this suit was based in part upon examination of the logs of the different wells that appear upon Defendants' Exhibit 16?

A Yes. My present estimate is based in part upon the examination of the logs presented in that exhibit.

Q Now, it appears upon this Exhibit 16 that the Elk Hills Oil Company's well on Section 7 of 31 - 24 is a dry hole, not working or abandoned. Do you recollect that, Mr Anderson?

A Yes.

Q And that was one of the logs which you examined in framing your opinion, was it not?

A Yes. [2152]

Q Now, assuming that the information contained both in the log and as represented on this Exhibit 16 is erroneous, in this respect, that the true log of the well will show that that company struck oil at 4000 feet but that water broke in and the company either had to pull back or drill a new hole, would not that, in connection with the facts which I have given you in the question as to the Associated oil-wells, tend to prove that those beds of oil-sands extend from the Associated oil-wells for a distance of four or five miles to the south and east? What is your answer?

A I am not ready to give the answer yet.

Q Why not?

A I didn't follow your question through sufficiently well to be ready to answer it yet.

Q Well, you had better read the question, Mr Examiner.

(The question beginning at line 22 of page 5234 was read by the Special Examiner.)

A Assuming that the Elk Hills Company on this well on Section 7 of 31 - 24 did reach on oil-sand at 4000 feet, taken in connection with what you have assumed in regard to the Associated wells, farther northwest — this might establish a presumption in favor of the sands being continuous over a distance of three or four miles.

Q And that would not exactly fit your theory which you gave on direct examination either, would it?

A No; assuming that the sands were struck in those wells, and that they were continuous over that area, it would not fit the theory that I held in 1903 or '04 or hold now.

Q You have referred, Mr Anderson, to a paper which you contributed to Bulletin No. 19 on Oil and Gas Yielding Formations of California, embracing Humboldt County?

A Yes. [2153]

Q That was published in 1901?

A Yes.

Q Now, I refer to page 166 of your paper: "On the whole, it may be truthfully said that the best success in reaching oil in this district in commercial quantities will be attained by the employment of some one able to interpret the indications and the structure of the country correctly, for the purpose of making a

detailed report upon it." By "some one", did you mean a geologist?

A Yes.

Q So that you entertained the belief at that time that the greatest amount of success which could be achieved in reaching oil in commercial quantities would be by the employment of a geologist who could understand and interpret the structure and indications correctly for the purpose of making a detailed report on it?

A Yes.

Q Now, speaking generally, you entertain that same opinion now, do you not?

A Yes.

Q As a geologist?

A Yes.

Q And it would not be a violent assumption, would it, to say that in 1903 and '04 that was the opinion of competent men as geologists, that the greatest amount of success to be achieved in obtaining oil in commercial quantities was by the employment of competent geologists?

A That is the first step to be attained.

Q Yes. Now, at the time you wrote that article, I notice that it is signed in print here by "F. M. Anderson, C.E." Was that meant to convey the impression that you held a degree as civil engineer? [2154]

A No; not at all. That was not put on there by my authority at all and I didn't see that until after

the bulletin was printed. I didn't know that it was there.

Q Well, I don't make any point upon it.

A If I had been asked, I would have objected to its being put on there.

Q I just called your attention to it because you said you had never asked that to be used.

A I never asked for it or procured it, to my knowledge.

Q So that, in 1903 and '04, prior to the date of this patent, if the Southern Pacific Railroad Company, or its holding company, the Southern Pacific Company, were desirous of obtaining lands falling under the land grant of the Southern Pacific Railroad Company, because of their petroleum values, they would obtain the best success in that matter by the employment of competent geologists, would they not?

A I presume they would.

Q And it is true, as you have stated, that the Southern Pacific Company had in its employ at that time some geologists under Mr E. T. Dumble?

A Yes.

Q Now, you entered the employ in April, 1903. What geologist did the Southern Pacific Company have beside Mr Dumble and yourself?

A Mr Owen.

Q Was that all?

A That is all that did any work in California, as far as I know.

Q Now, you stayed in the employ of the Southern Pacific Company from that date, as I understand

you, continuously until sometime in 1911? Is that right?

A Yes; until the 1st of September, 1911. [2155]

Q After Mr Owen came to his untimely death in 1909, who replaced him, if any one?

A I would not say that anybody replaced him. I don't believe that his place properly was ever filled.

Q Well, from April 1st, 1903, the Southern Pacific Company had, in California, examining prospective and probable oil lands within its land grant, three geologists, namely, Dumble, Owen and yourself. Now, how long were those three men employed continuously and exclusively upon that subject? By "Exclusively", I mean just those three?

A Well, before I answer your last question I will answer your first statement, in this manner, that Professor Dumble rarely went into the field, and when he did it was not to examine land particularly, but his business was connected with some administrative work. The only geologists in the department who examined land at all in 1903 and '04 were Mr Owen and myself.

Q Yes.

A Mr Dumble —

Q That brings it down to January 1st, 1905?

A Yes.

Q And for what length of time after that did the same force continue in that work without any change?

A I think until about the first of 1907.

Q Then there was some change made?

A Yes; there were three young men added to the force.

Q And who were they ?

A Mr W. H. Ochsner, Mr Robert Moran, and Dale Slusher.

Q That is, they were added to the force of the geological bureau of the Southern Pacific Company?

A Geological department of the Southern Pacific Company, yes sir. [2156]

Q Now, how long did Mr Ochsner remain with the geological department of the Southern Pacific Company?

A I don't remember definitely. I think it was something less than a year.

Q And Mr Moran?

A Mr Moran remained about the same length of time.

Q And Mr Slusher?

A Mr Slusher at that time remained the same length of time, whatever it was. Afterwards he was taken back, not in the geological department, but taken back for oil field work by the Kern Trading and Oil Company.

Q Now, all these men whom you have mentioned, that is, besides yourself and Mr Owen, namely Mr Ochsner and Mr Slusher and Mr Moran, while they were employed in that geological department, were they paid by vouchers similar to yourself and Mr Owen?

A Yes.

Q Issued by the Southern Pacific Company?

A Yes.

Q And all under the direction of Mr E. T. Dumble?

A Yes.

Q Who held the position of chief consulting geologist or consulting geologist?

A Yes.

Q What was it?

A Mr Ochsner's work and Mr Slusher's and Mr Moran's work was all directly under me.

Q You have testified, Mr Anderson, that you didn't believe that the gas in the wells in the Elk Hills had any direct connection or, in fact, any connection, with the orruerance of petroleum. When did you change your mind that gas had no connection with the occurrence of petroleum? [2157]

A I have not changed my opinion. I think you have misstated, a little, my testimony.

Q Well, will you set me right?

A I said the gas didn't necessarily have any connection with petroleum. Some of it has no connection; some of it may have, and some of it certainly does have some connection with it.

Q It is in the testimony here that in one well in the Elk Hills, if I am stating the record correctly, there was a flow of several million cubic feet of gas, three million cubic feet of gas per day in the well on Section 24 of 30 - 23. Would you, in your opinion, think that that gas has a direct connection with the petroleum in that well?

A Well, it evidently did, because it came out with what oil was thrown out from the well.

Q In general, however, it is regarded by oil men that gas is an indication of oil in the West Side field?

A Gas may be an indication of oil, but it is not always an indication of oil.

Q I don't know whether you understood the question, Mr Anderson.

A Well, yes, I think I did. I can complete my answer.

Q I will just state it again lest we have a long colloquy over it. Isn't it true that gas was generally regarded as an indication of oil in the wells which have been sunk in the Temblor district, Temblor Range?

A I think it is not so regarded, or generally regarded by geologists necessarily. That is to say, all geologists know that gas may occur, not in connection with any petroleum, and may have originated quite independently of any petroleum.

Q Did you not on page 114 in your paper on the Neocene deposits of the Kern River, as it is called, and the Temblor [**2158**] Basin, make this statement, page 114: (Reading) "Gas, which is generally regarded as an indication of oil, has been encounteded in nearly all of the wells, old and new, that have been drilled into the Temblor beds"?

A Yes.

Q Was that true at the time you made the statement?

A Will you read the rest of it?

Q Well, was that part of it true?

A Yes. I would like to have the rest of it read.

Q The rest of that paragraph, you mean?

A Yes.

Q (Reading) "Considerable quantities of gas were found in both the Grace Well No. 5, and in the deep well of the Petroleum Development Company". Now, at that time you entertained the belief, did you not, that gas was generally regarded as an indication of oil?"

A It specifies here that it was so regarded by geologists.

Q No, I say you entertained the belief that it was generally regarded. I have not limited it to geologists, have I?

A Well, I want to get it clear.

A Now, I would like to develop my intention here, explain my intention.

Q Well, will you first try and give me some brief answer, and then explain afterwards?

Mr Lewers — Mr Anderson has a perfect right, as long as his answer is responsive, to answer in his own way. I bobject to the interruption.

Mr Mills — I am only trying to shorten the matter; that is all.

A I have undertaken in this chapter on Economic Geology of the Kern River Country, to pretty conclusively show that oil had not been found in the lower Neocene beds. These particular [2159] wells that you refer to here or that are mentioned in the

paragraph immediately preceding the one you read, were sunk in the older Neocene beds, not in the Kern River group at all, and I am pointing out here the reason why geologists should not consider gas as always an indication of oil, because it did not accompany oil in these instances, and might not at any time.

Q Well, but you do admit, do you not, that it was generally regarded by people as an indication of oil?

A Yes. I suppose so.

Q And being so regarded as an indication of oil, generally, the opinion would be entertained generally, would it not, that where a great amount of gas was struck, over a territory like the Elk Hills and the Buena Vista Hills, that it was an indication of oil?

A That has often been so construed.

Q And it was so construed by you, was it not, in Section 10 of 32 - 24, on the Honolulu well?

A I didn't state that.

Q Didn't you state that on examination here?

A I am afraid not.

Q Didn't you state that you measured the gas over there and that you regarded it as connected with the petroleum?

A I didn't so testify. I said I measured the gas, which I did. I think I said that this flow of gas was taken as an indication of oil deeper down in the formations — not that I took it so.

Q Now, according to the alleged copies of logs which have been introduced here in connection with

Mr Luke's testimony, by the defendants, there are indications in almost every well which has been sunk 2000 feet and better, of gas, are there not, in the Elk Hills?

A I think I don't quite remember that question. Please [**2160**] read it again. (Question repeated by Special Examiner.) There have been not only indications of gas, but gas, probably, in the majority of them that have been sunk below 2000 feet.

Q And that would be taken, generally — regardless of your opinion as a geologist, that would be taken, generally, I suppose, as an indication of oil?

A That would be so taken by untrained geologists or people without geological training.

Q And the discovery of 3,000,000 cubic feet of gas a day in the well on Section 24 would be taken by a trained geologist as having a direct connection with that oil which you discovered in that well?

A If it came out with the oil, as I understand it did, that would be a very good indication of oil. But the presence of oil would not need that as an indication, for the oil spoke for itself.

Q Yes. In other words, it proved that that generalization was true, at least in that particular?

A Proved that the generalization is unnecessary.

Q Yes. Well, I think you are correct about that, that the oil was discovered there and didn't need the gas to show it. That gas helped to make it a spouting well, though, didn't it.

A I would not classify that as a spouting well, except in a temporary sense; and no doubt the oil did

have considerable to do with the geyser-like action of the well.

Q By Mr Lewers — You mean the gas instead of "oil"?

A The gas, I should have said.

Q By Mr Mills — Now, you mentioned the fact, at page 5034 of this record, that gas had been issuing from the Redlands and Scottish Oil Fields Limited well in Sections 20 and 30 of 30 - 23. At that time you knew of this enormous quantity [**2161**] of gas coming from the well on 24, didn't you?

A I did not.

Q Did you know of gas coming from the well on Section 30?

A No, I did not.

Q Of the Associated Oil Company?

A I did not.

Q Didn't you know that three of those wells, at least, had been making gas at the time you visited the Elk Hills?

Mr Lewers — You mean in 1911?

Mr Mills — Yes.

A In 1911?

Q Yes.

A I heard that they had made a little gas, but I didn't see it. And this 3,000,000 flow of gas from the well on Section 24 hadn't been struck at that time, so I could not have heard of that.

Q Then, your failure to mention what you heard of the Associated wells over there was not due to your

desire to suppress the testimony at all; it was merely because it was hearsay? Is that it?

A Well, I didn't really recall having heard it until you asked explicitly about it.

Q Do you know Mr Joseph A. Taff?

A Yes.

Q He is a geologist, is he not?

A Yes.

Q Who is he employed by now?

A Southern Pacific Company, I believe.

Q Is he under or over Mr E. T. Dumble, officially?

A He is under.

Q Do you regard Mr Taff as a good geologist, competent man? **[2162]**

A I believe he has the reputation of being a good geologist in coal fields.

Q Do you regard him as a good geologist in oil fields?

A I would not like to express my opinion of Mr Taff.

Q Did you know that Mr Taff at one time was on the classification board, the Oil Land Classification Board of the Geological Survey of the United States?

A No; I didn't know that.

Q And at that time the board was composed of A. C. Veatch, a government witness in this case, as chairman, Ralph Arnold, the author of Bulletin No. 406, and Joseph A. Taff, and that that board, after consideration, classified these lands in suit, among others in Township 30 - 23, as oil lands? Did you know that, Mr Anderson?

A I knew that those lands had been classified as oil lands long after the patent was issued.

Q Did you know that they had been classified as oil lands long before the patent had been issued, by the Southern Pacific Railroad Company or the Southern Pacific Company?

A No, I did not know that.

Q Did you know, Mr Anderson, that Mr Eberlein, as land agent of the Southern Pacific Railroad Company, repeatedly warned the officers of that company and of the Southern Pacific Company, and also Mr Dumble, the consulting geologist, against the examination of unpatented lands falling within the land grant of that company, because it might make these men witnesses against the company in mineral contests thereafter?

A No; I didn't know anything about that matter, Mr Mills. I only recall having heard there was some such matter, but I had no knowledge of it.

Q That is to say, Mr Eberlein didn't speak to you personally about it? [2163]

A No.

Q He did, however, speak to Mr Dumble about it?

A I don't know.

Q Did Mr Dumble ever state that to you?

A No.

Q Where did you hear of it?

A I think I heard through Mr Owen something about it, but what it was I can't now recall.

Q Now, to refresh your recollection, possibly, I will read this statement of Mr Eberlein's, reading

from page 1836: "I objected to Mr Dumble's examination of unpatented land, without any reference to the department, for the reason that I was fearful that it might charge us with notice of the mineral character of the lands. Mr Dumble didn't give us any information at all, never did, didn't cooperate in any sense at all, and I heard or had reason to believe that a good deal of examination was going on of granted lands and such of those as were unpatented, and believed that it was very bad policy to examine before patent issued, especially without any reference to the land office." Now, does that refresh your recollection at all as to what Mr Owen told you?

Mr Lewers — I object to that question, because I think Mr Mills, in all fairness, you ought to call attention to Mr Eberlein's further testimony that that all took place long subsequent to the granting of the patent in this case.

Mr Mills — He didn't say anything of the kind. He made that statement without any reservation of any date, and you know it.

Mr Lewers — No; I don't know it. I know you are entirely wrong, and I object to the question on the ground that it is indefinite and unfair, and it is not cross-examination of any matter brought out in the direct examination of this witness. **[2164]**

Q By Mr Mills — Does that refresh your recollection of what Mr Owen told you, Mr Anderson?

A I don't know that it does. I think that Mr Owen told me that — I don't know when it was he told me this. I think, though, that it was after the

patent had been issued for the lands in 30 - 23, that Mr Eberlein was opposed to our doing any work on the grant lands — I mean to say unpatented lands.

Q Yes. Now, don't you recall that he made protests to Mr Dumble, or that department, prior to the issuance of the patent in 1904, in the fall of 1904, concerning the examination of unpatented lands by the geological force of the Southern Pacific Company?

A No, I could not recall that anything was said by Mr Eberlein prior to 1904, prior to the first of 1905. I think my first acquaintance with the matter was through Mr Owen, and I think it was subsequent to 1905. I don't recall the date or the occasion, but I do remember that he told me some such thing.

Q By Mr Mills — Now, don't you recall, Mr Anderson, that you heard of this either through Mr Owen or Mr Dumble prior to the 23rd day of September, 1904, that Mr Everlein believed that the continuance of that custom of examining unpatented lands would bring the company into trouble, and a mineral contest thereafter?

A No, I don't think I heard that at that date, Mr Mills.

Q Well, whether you heard of it or not at that date, did the conversation which you had with Mr Owen indicate that he had knowledge of it prior to that date?

A No, I hadn't suspected that. I don't think so. What conversation with Mr Owen do you refer to?

Q The conversation you are speaking about which you had with him; didn't he refer in that conversa-

tion to the warnings which had been received prior to September, 1904? [2165]

A No, he did not.

Q Well, it was during the year 1904, wasn't it, that he referred to?

A I don't think so. I think it was some later date than that.

Q Now, are you positive one way or the other about it?

A Yes, I am. Come to think of it, I —

Q Let me call your attention —

Mr Lewers — Wait a minute. He hasn't finished his answer.

A I believe it was in some connection, I can't recall definitely, but I think it had some connection with the employment of these three men that I spoke of before.

Q By Mr Mills — I don't want to interrupt your thought, Mr Anderson, but let me ask you this question: Do you recall that in 1904 there was printed at the instance of Mr Eberlein lists of lands of the Southern Pacific Railroad Company, which had the following footings: "Patented Lands, Unpatented —Unselected", then "Unpatented Selected Lands, Unsurveyed — Primary and Indemnity, Unpatented — Indemnity Selected and Unselected"? Do you recall those lists?

A No, I do not. I recall some maps on which there were some classifications of land, and a legend that described lands of these classes.

Q Those that I have just named?

A Yes, but the date of that map I can't fix at all. I think it was probably considerably subsequent to 1904.

Q Now, wasn't it a fact that those were printed in 1904 and furnished to the department?

A I couldn't say.

Q In which you were working?

A No, I didn't see them.

Q And didn't you go over yourself and get lists of land [**2166**] from Mr Eberlein under those very headings, at the instance of Mr Dumble?

A No, I do not recall ever having seen a list of lands. I do recall having seen some maps. When they were prepared, I don't know.

Q They were on yellow paper, weren't they, as you recall it now?

A No.

Q Were you traveling at that time on an annual pass, in 1903 and '04?

A Yes.

Q Of the Southern Pacific Company?

A Of the Southern Pacific, yes.

Q Now, do you recall the tract or plat books in the land department of the railroad company, Southern Pacific Railroad Company, which have been marked by Herman Coke, "Reserved for Oil", including unpatented indemnity selections, as well as patented ones, marked "Reserved for oil"?

A No, I do not. I did not examine the books of the land department very often, if ever. They often

sent maps over to the geological department. By whom they were prepared, I don't know.

Q Well, didn't you ever go over there and ask to see the tract or plat books of the land department which has been marked "Reserved for Oil", including those lands, unpatented and indemnity selection, in 1903 and '04?

A I never asked about any unpatented lands. I have been in the land department sometimes, for certain purposes; usually to get blank maps. I never asked about any unpatented lands.

Q I didn't ask you whether you asked about any unpatented lands, Mr Anderson. I asked you if you called for the books which were marked, "Reserved for Oil"? [2167]

A No, I did not, that I recollect.

Q And which include among other lands also unpatented indemnity selection lands?

A I don't think I ever asked to see the books.

Q Do you recall that tract book that I am referring to now?

A Why, I recall the fact that they did have some books, but I don't know exactly what book you are referring to.

Q Well, do you recall the fact that they had in the office there a tract book headed "Reserved for Oil"?

A Not when Mr Eberlein was there, I can't recall.

Q Well, can you recall at any time?

A No, I do not. The only thing I recall is a large map that Mr McAllister had after Mr Eberlein's

time. Mr McAllister had a large map on which he had marked lands that were reserved for oil.

Q Now, referring to that book, did that contain as well other lands as the unpatented indemnity selection lands?

A I couldn't say about that; I don't know. I never examined it sufficiently to make any statement in regard to what it did contain, except the lands marked "Reserved for Oil". I understood that they had been so marked.

Q Was that marked in pen or pencil, "Reserved for Oil"?

A It was marked with colored pencil, I believe. As I recall it, he had written with red pencil the letter "O" on the sections that were to be reserved for oil.

Q Do you remember your department, that is the geological department, being furnished with any lists or plats during the time that Mr Eberlein was — well, during the time previous to January 1st, 1905, containing the headings, "Patented Lands", or "Unpatented Unselected Lands", "Unpatented Selected Lands", "Unsurveyed Primary and Indemnity Lands", "Unpatented Indemnity [2168] Selected", and "Unselected Lands"?

A You are asking about lists?

Q Plats or lists.

A Plats or lists. I do not recall having seen any such lists or plats, Mr Mills, prior to January 1st, 1905.

Q Now, when you stated on direct examination

that you searched the geological literature for some reference to the Elk Hills in 1903 and found none, did you want it to be understood or the impression to be conveyed that no one then knew the geological importance of those lands for petroleum?

A No, I wished it to be understood that so far as the literature was concerned, no writer had ever regarded it as prospective oil lands, for, while they had often referred to other prospective oil fields, other fields, rather, that they considered prospective, and in which nothing has yet been developed, they did not refer to the Elk Hills.

Q By "literature", you mean published papers, don't you?

A Yes.

Q You don't refer to private reports at all?

A I think I could include private reports in that also.

Q Well, don't you know as a geologist for the Southern Pacific Company, that Dr John R. Scupham, a former geologist for that company, as early as 1887 made a report on those very hills to the Southern Pacific Company?

Mr Lewers — A written report?

Mr Mills — Yes sir.

Mr Lewers — Why, there is no Dr John R. Scupham; he is not a geologist; he testified he was not. He testified he never made any report at all, so there is no foundation for this question. I object to it as not cross-examination.

Mr Mills — The record will bear out who Mr Scupham is, Mr Lewers. [2169]

A No, I never heard of Mr Scupham's report, if he made one.

Q You didn't refer, either, to an extensive report made by Mr Owen to Mr Dumble including those hills?

A I have no knowledge of any such report, if he ever made one.

Q You wouldn't expect, would you, a railroad geologist, interested in urging the unlawful selection of mineral land under an agricultural grant, to set forth in a publication or in any publication his reasons geologically for such selection, would you?

A I would like to hear that question. (Last question read by the reporter.) Why, I presume if he were a railroad geologist trying — or urging the company to select these lands unlawfully, probably he would not explain it very fully in public statements.

Q And such geologists as were not concerned in urging the fraudulent and unlawful selection of those lands, and who possibly might have published some papers bearing generally on the geology of that region, would not ordinarily set forth the economic features of their work, so far as they pertained to their private employment?

A I presume not.

Q Now, it is in evidence here, Mr Anderson, that Mr Owen recommended to the Southern Pacific Railroad Company — I should say reported to the South-

ern Pacific Railroad Company, the petroleum-bearing character of the lands in this suit; it is further in evidence that prior to the date of the patent he told several witnesses about that report, and to one of them he made the statement that if the railroad company selected these lands in suit, it would be committing a fraud upon the government of the United States. Now, you would hardly expect, if that [**2170**] were true, that in March, 1903, meeting Mr Owen for the first time, not even having heard of him before, as you say, that either he or Dumble would confide their secret purpose of urging the selection of these lands in suit because of their mineral values to an almost complete stranger?

Mr Lewers — I object to the question as being based on an assumption of fact contrary to the record.

Mr Mills — Page 452 of the record, in the testimony of Samuel P. Wible: "Did you ever discuss with Mr Owen the selection of those lands that I have described specifically in 30 - 23 of the railroad company, and when?" (Meaning the lands in suit.) "A—Yes sir; I did. "Q—What date was that? Was it before they were selected? They were selected in 1904. A—Just about the time of the selection. Q—What did he say about it? A—We were at that time discussing the mineral possibilities of the hills for fuller's earth, especially. That is the time he showed me the fuller's earth. He said if the railroad selected those lands they would be selecting mineral lands. In other words, they had no right to select them, as

he had reported them as mineral land." And then the further statement on page 436: "Q—Had he examined any lands in the Elk Hills in behalf of the Southern Pacific Railroad Company? A—Yes sir, he had." Now, there is a statement somewhere with reference to his reporting to Dumble on that subject, and I can't find it just now.

(The question is read by the reporter as follows: "Q—Now, it is in evidence here, Mr Anderson, that Mr Owen recommended to the Southern Pacific Railroad Company — I should say reported to the Southern Pacific Railroad Company, the petroleum-bearing character of the lands in this suit; it is further in evidence that prior to the date of the patent he told several witnesses about that report, and to one of them he made the statement that [2171] if the railroad company selected these lands in suit, it would be committing a fraud upon the government of the United States. Now, you would harldly expect, if that were true that in March, 1903, meeting Mr Owen for the first time, not even having heard of him before, as you say, that either he or Dumble would confide their secret purpose of urging the selection of these lands in suit because of their mineral values, to an almost complete stranger?")

A No, assuming that these statements are true, I would not expect Mr Owen to confide, or Mr Dumble to confide that to a perfect stranger; nor would I expect them to confide it to me at the time I met Mr Owen in 1903. I would like to say, though, that subsequent to that time, subsequently to that time, and

during 1903 and '04, I traveled over that country with Mr Owen a great deal, and camped with him, and talked about every phase of the matter or matters that interested us, pertaining to the oil districts throughout; and if he had any such thing in mind, I think he would have given me some information in regard to it.

Q You think that if he had the fraudulent purpose of urging the selection of these lands, that he would have confided to you that purpose?

A I don't know; I don't think he would have much warrant for confiding to me any fraudulent intention in that matter, or any other, if he had any.

Q Now, did you know, then, that is at the time you entered the employ of the geological department under Mr Dumble, that the only tracts of land falling within the indemnity limits of the grant to the defendant Southern Pacific Railroad Company which had been surveyed, and were open and unselected in the entire McKittrick, Sunset and Midway Petroleum districts, were these very lands in suit? (The last question is read by the reporter.) **[2172]**

A No, I didn't know that.

Q You say that you have never made any written report upon lands you examined while employed by the Southern Pacific Company in the petroleum fields of Kern county, as to whether they were proven oil lands or prospective oil lands, prior to 1905; is that correct, but that you reported to Owen & Dumble verbally?

A I would like to see the copy of my statement in that matter.

Q (Handing to witness) Near the bottom of the page, Mr Anderson.

A I think I might amend this statement to this extend: That I do remember writing for Professor Dumble a statement of the general stratigraphy of the districts, but it had no reference to lands that should be reserved or applied for; it was simply a statement of the geological factors of the district.

Q Now, apart from that, such reports as you made which were written were made subsequent to January 1st, 1905?

A As far as I remember.

Q Now, what reports did you make after January 1st, 1905?

A I may not be able to recall all of them. There was a report written in, I think it was November, 1905, which was a matter of testimony, however. It was written in connection with a trip I made with Mr Owen around the southern end of the valley, and I think that that was in November, 1905.

Q That was a written report?

A That was a written report. It has been alluded to in the testimony, and I have forgotten the date of it now, but I believe that was the date.

Q Now, what other reports did you make subsequent to 1905?

A I think I made a report sometime in 1907, Mr Mills, the original letter of which was presented to this — **[2173]**

Q Which was introduced here, you mean?

A Introduced here in evidence.

Q You refer to Defendants' Exhibit, meaning the letter which you wrote to Mr Dumble concerning some lists of lands?

A Yes.

Q And as to which the list of tracts didn't accompany the letter in the Exhibit?

A Yes.

Q Any other reports that you made?

A I made a good many reports subsequent to that time, but I can't recall them; that is, I can't recall the reports bearing upon this territory.

Q Did you make, at the instance of the geological department of the Southern Pacific Company, an examination of any or all of the following lands; Sections 5, 7, 9, 11, 13, 15, 23, 25, 33, 21, 27 and 35 of 30-22? Do you want a map?

A Please. (Refers to map). I don't recall any such report, Mr Mills. I may have done it.

Q I mean did you make any examination of those lands?

A I did make examination of those lands; yes.

Q And you don't recall making the report on them?

A Only a verbal report.

Q Now, are you quite sure you didn't make a written report on those very lands?

A I would not be positive that I didn't make a written report, but I don't recall any at this time.

Q And you would not be positive that you didn't

make a written report on them prior to the 1st of January, 1905?

A I wouldn't be positive that I didn't make a written report of that prior to January 1st, 1905, as I stated before. That is what I tried to state before. But I don't recall any such report — written report including all or any part of those [**2174**] lands.

Q Did you make a report on Section 31 of 30 - 23, in connection with the following lands: Sections 5, 9, 15, 21, 23, 25, 27 and 35 and the east half of Section 7, in 31 - 23?

A I think whatever report I may have made covering these lands in Township 31- 23 included also Section 31 of 30 - 23.

Q Now, are you ar all positive that you did not make that report prior to December 12, 1904, in written form?

A While I have not admitted making any report at all, I say I may have made such report but I don't recall any such report. I recall reporting on these lands, but I believe that it was altogether subsequent to 1904.

Q Now, wasn't it prior to the 1st day of August, 1904, that you made report on those lands?

A I don't think so.

Q Did you make a report, written report, on the northeast quarter of Section 15, on the Northeast quarter of Section 23 and the northeast quarter of Section 25, of 31 - 22?

A I probably did include those sections in reports

that I have made. I think I did report on those sections.

Q Now, did you not make that report prior to the 1st of August, 1904?

A I don't think so.

Q When did you make the examination of those lands?

A I began the examination of those lands in March, 1903, and I went over those lands, or — Yes, I think I visited those lands several times during 1903 and 1904; that is, the lands in Township 31 - 22.

Q Yes sir. Did you make examination and report on Sections 31 and 33 of Township 31 - 24?

A Sections 31 and 33?

Q Yes. **[2175]**

A The only examination I made of those sections was on the occasion of my camping on the lake in 1903, September, 1903, and I don't think I went onto the lands at all and I am sure that I didn't report upon them.

Q Now, did you make examination of Sections 3, 11 and 13 and the north half of Section 5 in 32 - 23?

A 32 - 23?

Q Yes, 32 - 23.

A Yes; I did.

Q When did you make the examination and report on that land?

A I can't recall. I think all of these lands that you have mentioned so far were included in the report I made in 1907.

Q And you made no written report prior to that time on those lands?

A Not that I recall now. I don't believe that I did.

Q Now, do you recall making examination of Sections 3, 5, 11 and 13, in 32 - 24?

A Yes; I made examination of these lands in September, 1910.

Q When did you make your report on them?

A I made a verbal report about that time.

Q 1903?

A Yes. I don't think I made any written report until very much later.

Q Now, isn't it a fact that all the lands which I have described to you, Mr Anderson, were reported upon and examined prior to the 1st day of August, 1904?

A 1st day of August, 1904? I presume they were reported on, but I didn't report on them, to my recollection now, at all. [2176]

Q Then, if any one reported upon them, it was some other person in the geological department beside yourself?

A Yes. If I made any report upon them, I am disposed to think that that report consisted of a map — a map only — as far as any written or printed matter was concerned.

Q What was the nature of the map that you made?

A I believe that I did make some maps showing the lands that I thought ought to be taken over by

the Kern Trading and Oil Company under lease. Now, the date of those reports or maps I can't give you definitely.

Q Did you recommend the inclusion in a lease for oil purposes from the Southern Pacific Railroad Company to the Kern Trading and Oil Company of Section 31 of 30 - 23?

A I did.

Q Did you examine that to determine whether it was prospective oil land?

A I did.

Q And did you determine that it was?

A Yes. Its position on the Buena Vista anticline gave it a prospective value, in my judgment — part of it, at any rate.

Q That section of land is in the Elk Hills, is it not?

A No.

Q Section 31 is not Elk Hills?

A It approaches very near, in fact, comes onto the Buena Vista anticline, the southwest corner, and whatever value I gave it as prospective oil land was due to its proximity to the Buena Vista anticline.

Q Is not a portion of that section in the Elk Hills?

A I think by the topographic map it appears. I think it is a fact that the northeastern part of the section rises a little on the slope of the Elk Hills. [2177]

Q And it is in an unfavorable position with reference to the anticline of the Elk Hills, is it not?

A Yes; I think it is.

Q If that land was prospective oil land in 1903,

all the lands in this suit were prospective oil lands at that date, were they not?

A Well, perhaps so.

Q And if they had been patented at that time you would have recommended them for lease to the Kern Trading and Oil Company?

A Perhaps I would. I hardly think that I would have done so, because I didn't have such an opinion of them.

Q You hadn't made any examination of them, had you, at that time?

A Except such examination as I could make by studying the outcrop of the formations along the flanks of the Temblor Range. The position of the Elk Hills with reference to that was not favorable, in my judgment.

Q Now, in your map which you have been examining there, and which is known as Defendants' Exhibit No. 19, you show the anticline of the Buena Vista Hills tied onto the McKittrick anticline, don't you.

A Yes.

Q And yet you have failed to tie on the Elk Hills anticline to the north McKittrick anticline. Why was that?

A Well, I don't think it is as closely connected with the anticline in the McKittrick Hills as the Buena Vista anticline is with the McKittrick anticline.

Q Is not there better evidence of the continuation of the Elk Hills anticline onto the north McKittrick

anticline than there is from the Buena Vista anticline onto the McKittrick anticline? [2178]

A No; I don't think so.

Q And does not that anticline of the Elk Hills extend on through up as far as Gould Hill, clear into the Temblor Range?

A No; I don't think it does. The anticline north of McKittrick in the McKittrick Hills I believe can be traced up into the Gould Hills, with more or less confidence, but I cannot follow the anticline in the Elk Hills into the McKittrick Hills at all.

Q Into the North McKittrick Hills is what I am talking about.

A Yes; North McKittrick Hills. I have tried to follow the anticline in the North McKittrick Hills to the southeast, on the theory that they were continuous, but I never could find that they were continuous. The anticline in the North McKittrick Hills plunges where it reached the railroad and apparently disappears altogether. The folds that are in evidences in the Elk Hills do not seem to have any close connection with it at all.

Q It is a fact, is it not, that the anticline has been ties on by Dr Arnold, to the North McKittrick anticline, and traced as far as Gould Hill, and even beyond?

A It does not appear so on this map.

Q Well, it appears so as much as the Buena Vista anticline does to the McKittrick anticline, doesn't it?

A No. Then, besides, I think that the report on this map is not above criticism.

Q Well, passing for a moment any criticism you may have upon the map, was your failure to leave out the supposed anticlinal relation in North McKittrick with the Elk Hills due to the fact to better support your evidence in this case?

A No. You are referring to my map, are you?

Q Yes; Exhibit 19. [2179]

A No; I did not include any reference to the McKittrick anticline — that is to say, the anticline in the McKittrick Hills, north of McKittrick Valley, because it was in no way involved in this case and it was not genetically connected with the Elk Hills in any way.

Q Well, don't you know that the anticlinal structure continues right through and can be traced from the Elk Hills clear through to Gould Hill?

A No; I don't. There is an anticlinal structure running through the North McKittrick toward the Gould Hills, but in the other direction it plunges and is not continued in the Elk Hills at all; it has no connection with the anticline of the Elk Hills.

Q You know that it is in evidence here, don't you, that wells have been sunk in that anticline on the North McKittrick?

A Yes.

Q And produced oil?

A Well, not right on the anticline.

Q And that they had some connection with this

case, with the anticline found in the Elk Hills. Now, why do you say it had no connection with this case?

A I don't know what has been put in evidence, except what I myself have put in.

Q Referring to your map there, is Section 13 or 30 - 22 in the Elk Hills?

A Well, no. Well, it is on the western slope of the Elk Hills.

Q How about Section 25?

A It is similarly situated.

Q And the northwest of Section 17 of 30 - 23? Where is that? Is that in the Elk Hills?

A Yes; that is in the Elk Hills. [2180]

Q And the northwest quarter of Section 19 in 30 - 23?

A I think that is in the Elk Hills.

Q You reported on all those parcels of land, did you not, examined them?

A I reported on all the lands involved in this case, and neighboring lands, in 1911.

Q Now, I mean in 1903 and '04 didn't you examine and report on those sections of land that I have just described to you?

A Not that I recall. I said I didn't recall making any report on those lands in 1903 and '04.

Q Well, did you make any verbal report?

A I think not, because I was not within the limits of Township 30 - 23, unless it was on Section 31, prior to 1911. Whatever reports I may have made on 30-22 may have been verbal reports and connected with a map. I don't recall making any such.

Q How is it that you for two years, and up until almost precisely the day on which this patent was issued, you made only verbal reports and immediately thereafter you commenced the making of written reports to the geological department. What was the reason for that change?

A You will have to search somebody else.

Q Well, would you suggest searching Mr Dumble?

A He did not ask me to make any written reports, I believe, on any land, farther than preparing maps for him, prior to 1905. As I recall now, the first written report accompanied with any list that I made was in 1905, following a trip I made around the south end of the valley.

Q But you did make a report, you say, subsequent to 1905, written report, on that trip. Where is that report now?

A Subsequent to — [2181]

Q January 1st, 1905.

A I made a report on the results of this trip that we made around the south end of the valley. I think that was in November, 1905.

Q Now, where is that report now?

A I have a copy of it here, I believe, somewhere. I haven't it. I have seen a copy, I believe.

Q That was in November of 1905?

A Yes.

Q That was not the report that you refer to of 1907, then?

A No.

Q Where is the report of 1907 which you made for some land?

A Why, the letter accompanying the report was presented in evidence. The lists accompanying that report are held in abeyance because we didn't have the proper lists.

Q Well, but where is the report? Is the letter the report?

A The letter is the report connected with the lists, that is, the report included the letter and the lists.

Mr Lewers — Mr Mills, I have the carbons, but not the originals, and I am endeavoring to find them.

Mr Mills — Well, I want to understand about it.

Q The lists, then, indicate on their face the character of the work, the recommendations?

A Yes sir.

Q So that the lists really are the report?

A Yes.

Q Taken in connection with the letter?

A Yes.

Mr Mills — At this point, I desire to announce on the [2182] record that that is all for the present; but I am waiting for the arrival of some papers and shall reserve the right of further cross-examination if I can get the papers I am asking for.

Mr Lewers — When?

Mr Mills — As soon as I get the papers, at such time as is convenient for Mr Anderson and yourself.

Mr Lewers — That would have to be at some indefinite time in the future?

Mr Mills — Yes.

REDIRECT EXAMINATION
OF
FRANK M. ANDERSON

By Mr Lewers:

Q Mr Anderson, how long were you in personal contact with Professor Owen?

A Just what do I understand by that question?

Q That is, during how many years and how closely were you associated with him in your work?

A Well, I was associated very intimately with him in all my work, particularly around the oil fields, from March, 1903, until September, 1911. We often talked together and discussed the matter together. We have traveled together, camped together, and had every opportunity to get acquainted with each other's views and I felt that the relation was rather intimate between us two.

Q Do you remember what the date of Mr Owen's death was?

A I think it was in December, 1910, wasn't it?

Q Well, then, when you stated a moment ago that you were associated with him until 1911, that was an error?

A That was a mistake, I mean up to the time of his death.

Q Now, during all that time, did he ever indicate to you [**2183**] by hint or otherwise the existence of this fraudulent scheme that Mr Mills has referred to?

A. No.

Mr Mills: That is objected to, because it has been gone over once on direct examination.

A. He did not.

Q. By Mr. Lewers: Now, I understood you to testify on cross-examination that you went down there one time for Mr. Crandall for the purpose of showing him lands that he might take up for oil purposes; is that correct?

A Yes.

Q. Did you at any time indicate to him any portion of the Elk Hills as prospective land that he should take up?

A. No, I did not.

Mr. Mills: That is objected to as immaterial, because the witness stated that he went down there and went over some lands that Dumble had.

Q. By Mr. Lewers: What was your purpose in going down there; was it confined to the lands Mr. Mills has indicated or not?

A. No, it was not. Mr. Crandall endeavored to get me to do as much as possible under the terms of his agreement with me, and he included everything in Kern County. I had an agreement with Mr. Crandall something like this: That I was —

Mr. Mills: Now, I object to this, because I think it is immaterial.

Q. By Mr Lewers: You may complete your answer.

A. I think it is material. I had an agreement with Mr. Crandall to this effect, that I —

Q. By Mr. Mills: Was that agreement in writing, Mr. Anderson?

A Yes.

Mr. Mills: Well, I object to it on the further ground that it is hearsay of a written instrument.

[2184]

Q. By Mr. Lewers: You may answer.

A. I can furnish the agreement. But I was to have a certain interest with him in whatever he and his people would take up, by my recommendation, in Kern County. He made a point of putting that in, whatever he should take up or his people should take up at my recommendation in Kern County, I should have a part interest in it.

Q. Now, what have you to say, Mr. Anderson, as to the relation of the Scottish well, the Redlands well, and other wells that are situated in the Elk Hills, in reference to the anticline existing there, whether or not they have been sunk in positions where oil would have been discovered had it been there? You may refer to any map you have.

Mr. Mills: I object to the question, because it seems to me it ought to have been covered on direct examination.

A. Why, I should say that the Redlands Oil Company's well and the Scottish well —

Q. By Mr Lewers: Those are the only ones I mentioned. Were there any others that you know of?

A. — were sufficiently near the axis of the anticline to have obtained oil if there was any in it.

(The last answer is read by the reporter.)

Q. Now, Mr. Mills has made a number of assumptions in regard to the thickness of oil-sands in various wells as indicated by logs. Now, directing your attention particularly to the well in Section 30 of 30-24, Associated Company's well, do you find in that log a thickness of sand exceeding or anywhere near equalling 500 feet below the 2700-foot level?

Mr. Mills: Is that a log that is introduced in evidence you are examining? (Addressing the witness.)

Mr. Lewers: Yes.

Q. By Mr. Mills: Is that log in evidence that you are [2185] examining now?

The Witness: This particular log is not in evidence. This is a graphic copy of the log in evidence.

Mr. Mills: I object to your testifying from a log that is not in evidence.

The Witness: I have compared this with the typewritten one that was introduced, and this was made under my special direction.

Q. By Mr. Lewers: You may answer.

A. There is a streak of oil-sand represented in the log a little below 2700 feet; it is represented as having a thickness of 9 feet. This is the only body of sand that is represented in the log below 2700 feet.

Q. Now, referring to the well in Section 26, where, as I recollect it, the 159 feet of oil-sand, or 159 feet of sand showing oil appears near the bottom of the well, could that sand, if it is assumed to be oil-sand of that thickness, have any stratigraphic relation to the assumed oil-sands that Mr. Mills spoke of at a depth of 2700 feet?

A. No, I think not.

Q. Do you find, by examination of the other logs in the vicinity, any thickness of sands corresponding to this at the bottom of the well in 26?

A. No, I do not. This is the only log in which there is represented any such thickness of sand, any sand at all that is called oil-sand that exceeds a thickness of 9 or 10 feet, as I recollect it.

Q. Now, what have you to say as to the ability to determine in all cases while drilling, the actual presence of true sand? I am not speaking of its oil character now, but its sand character.

A. It is often difficult to determine the character or quantity of sand in drilling; even drilling with a standard drill one may easily make mistakes as to the thickness of sand, and may make [**2186**] mistakes also as to the character of the sand or its productivity. The mere drilling of a well gives you no index at all as to the productive capacity of the sands that you encounter.

Q. Now, have you in mind any instance where you have been able to, by other observations, check a log report of sand in a well, any of the wells that you have personally observed or been connected with?

Mr. Mills: That is in this field here, you mean?

Mr. Lewers: Anywhere in the San Joaqnin.

(Last question is read by the reporter.)

A. You mean have I been called in to pass judgment upon purported sands?

Q. Yes.

A Yes.

Q. Where?

A. In the Lost Hills.

Q. Well, will you state fully what you observed there, what the report was upon which you were called in?

A. I recall Natomi well No. 1, situated in Section 5, of Township 26-21, near the north line. At a depth of about 3400 feet the sand was reported that was said to have continued for some distance. This sand was —

Mr. Mills: I don't want to keep objecting, Mr. Anderson, but that appears to be objectionable on account of the fact that it is hearsay.

The Witness: No, it was not hearsay.

Q. Didn't you say it was said?

A Yes.

Q. By Mr. Lewers: Who had charge of the well?

A. Mr. W. L. McLean, superintendent of the Universal Oil Company.

Q. What connection did you have with it? [2187]

A. Geologist of the company.

Q. And to whom were those reports made that appear in the log?

A. They were made to the president and manager of the oil company in San Francisco.

Q. Did they come to you in the course of your official business as geologist of the company?

A. They did.

Q. And what, as you recollect it, thickness of sands did they show?

A. Well, at the time of their report they had

struck oil-sands. I was in San Francisco, and they stopped soon after they reached the top of the supposed sands. Mr. McLean telegraphed into the office that they struck oil-sands, and that the well was flowing or had flowed, in fact had spouted and had thrown oil over the roof in the derrick, and almost to the top of the derrick. He said in fact the oil would have gone over the crown block, if it hadn't been for a strong wind blowing.

Mr. Mills: Now, that oil appears to be hearsay, and I move that it be stricken out.

Q. By Mr. Lewers: You may proceed.

A. Very soon after this I went down to the property of the Universal Oil Company and went to see this well, and I asked to see some of the sand. Mr. McLean apologized to me—

Q. Well, did you see any of the sand taken when you conversed with Mr. McLean?

A. I saw what he had taken to be sand. He had discovered himself that it was not sand.

Q. What examination did you make of it?

A. I made an examination of it with my pocket lens, as he had also. It resembled sand very much, indeed, and if I had been present when the material was brought out of the well, and had no means of examining it except by the unaided eye, I think I would **[2188]** have called it sand, particularly on account of its behavior and the fact that it contained oil. Examining it with a pocket lens which I always carry (showing lens), it was not sand at all.

Q. What was it?

A. It was hard silicious shale that had been ground up by the bit in the process of drilling. It resembled sand so much superficially that we all considered it a good joke, and we talked of it extensively. Now, the further drilling of this well, Natomi No. 1, showed about the same material from 3400 feet down to 3800 feet.

Mr. Mills—Mr. Lewers, without interrupting, it is understood my objection goes to all this for its immateriality and for other reasons that I have given?

Mr. Lewers—That is agreed.

A. In the meanwhile the well spouted at intervals, and I advised putting it on the pump and trying out its capacity. The well was put on the pump and the fluid all pumped out of it, pumped down to a level of 2000 feet, and that is as far as the pump was put down in the well, and it failed to make any other flow, until subsequently some two weeks after it did make another spurt. There is also another well that is owned by the Universal Oil Company that had almost a similar record, similar showing.

Q. Do you know of any other illustrations of reported sand that you have been able to determine was not sand, anywhere else?

A. Yes, yes I have. The Associated Oil Company drilled a well on Section 27. I will have to guess at the township.

Q. The location is not material, Mr. Anderson. I want you to give it as briefly as possible.

A. Well, it was north of Carneros station, pumping station, and at 2700 feet and at 3100 feet they reported oil-sands. An examination of the material proved that it was not oip-sand, although they did find some oil. The well has since been abandoned. **[2189]** Also the Lindsey Oil Company on Section 7 of Township 27-21 drilled a well to the depth of 3600 feet and more, and reported oil-sands. That proved to be nothing but shale that was crushed up by the drill.

Q. Now, as I recollect it, in answer to one of Mr. Mills' questions, you stated—I may be mistaken in this—that the Scottish well and the Redlands well and certain other wells that Mr. Mills mentioned, were in an unfavorable position for getting oil. What did you mean by that?

A. I meant that I regarded all of that land in the Elk Hills as unfavorable for getting commercial quantities of oil.

Q. Now, dismissing from consideration any assumptions of fact that Mr. Mills may have made as a basis for his questions, and taking all of the conditions in there as you understand them from your own observation, and from the assumption that the logs here represent approximately the correct situation, in your opinion is that prospective oil land today?

Mr. Mills—That is objected to because the witness has already stated that in his opinion, basing his answer on the assumption of the correctness of those logs, that it was not prospective oil land.

A. I would like to say this: That nothing has yet been proved of commercial value in that territory, and I see no reason for changing my original idea in regard to these, that they are not oil lands.

Mr. Mills—Now, I object to that statement and move that it be stricken out unless the witness means that in answer to your question. Do you intend that as an answer specifically to the question, Mr. Lewers?

Mr. Lewers—It strikes me it is very responsive.

Mr. Mills—Well, he stated a fact that it has never been proved there. He is assuming, I understand, that these logs are [2190] correct.

The Witness—And the information that I have otherwise is correct. I made this in response to Mr. Lewers' question, for I wanted to place myself in the clear.

Q. By Mr. Mills—Well, your answer, as I understand it, is based on the exhibits offered in the case here?

A. Not altogether.

Q. And on what you have testified to?

A. Yes.

Q. Of what you know about it?

Q. By Mr. Lewers: Now, basing your answer—

Mr. Mills—Just a moment. I want to know whether that is true or not. If it is not, I want to examine him on it. If it is true—

Q. I want to know whether it is true or not at this point.

A. It is based on my examination of these records, and upon my examination of the territory, and upon all that I know in regard to the case altogether, through a long period of time.

Q. By Mr. Lewers—Now, in answer to one of Mr. Mills' questions, I believe you stated that the Southern Pacific Railroad Company's land department had some men employed who had some knowledge of geology; do you remember any man that was an employee of that company that was a geologist? I mean of the land department of the Southern Pacific Railroad Company.

A. Really, I was not very well acquainted with them. I had a speaking acquaintance, only, and I never talked to them extensively about geology. They did go out and report on land, grant land. It seems to me there was a man by the name of Hill, and another one by the name of Coe—wasn't that it, Coe?

Q. Well, Coe was at a later time than 1903 and '04, was he not?

A. Oh yes, and as far as I know, Hill was, too. I remember **[2191]** a conversation with Mr. Hill—

Q. Well, we don't care for the conversation.

A. Well, it is only to show the character of work the ydid. This is the only conversation I had.

Q. By Mr. Mills—You don't expect to put in this conversation which is hearsay even when your own counsel objects, do you?

A. No.

Q. By Mr. Lewers—Do you know of their having

any geologist who made an examination of that territory down there in 1903 and '04?

A. I do not. The only geologist that had made any examination of this land that I know of was Mr. Owen. He had been on the land in 1903 and '04, and I don't know that he made any report except a verbal report, to anybody, and I always believed that he did not consider it oil land.

Q. Now, Mr. Anderson, Mr. Mills asked you if you thought it had any value for any other mineral substance, I think. I don't recollect that there was any answer to that question.

Mr. Mills—I don't think I asked him that question.

Mr. Lewers—I think you did.

Mr. Mills—No, I did not.

Q. By Mr. Lewers—In your opinion, are the Elk Hills of any value for mineral purposes?

A. Not that I know of.

Q. Is there any fuller's earth in there?

A. I think not, not as I understand Fuller's earth. Fuller's earth is a commercial term. My investigation in there convinced me that there was no deposit of material that could properly be called Fuller's earth, or that had any commercial value as such. I didn't see any material in there that would fulfill the purpose for which Fuller's earth is used, as far as my investigation went. **[2192]**

Q. And when did you come to that conclusion?

A. In 1911.

Q. Was there anything known, as far as your knowledge was concerned, in 1903, of any gas in the Elk Hills?

A. Please read that question.

(The last question is read by the reporter.)

Q. The gas that has been referred to in these various logs, was there anything known about that in 1903 and '04?

A. Why, certainly not, for the wells were not drilled at that time.

Q. Mr. Mills asked you, Mr. Anderson, whether or not in 1904, if the land now in suit had been patented, you would have included it within any map or recommendation you made for a lease to the K. T. & O. Company. Now, after the patent was obtained, did you ever include it in any recommendation for a lease to the K. T. & O. Company?

Mr. Mills—That is objected to as wholly immaterial, because there is no evidence here that there was ever any lease subsequent to the lease that we introduced in evidence, and as to which Mr. Eberlein testified the piping charges were sent in to the land department, namely, the lease of August 2nd, 1904; for the further reason that it is wholly immaterial.

Mr. Lewers: I will say that by demand of the counsel for the Government, the lease of December, 1907, the Kern Trading and Oil Company lease was produced and submitted to counsel for the Government for their inspection, and counsel knows that such

lease is in existence, although it was not put in evidence by them.

Mr. Mills—It was never produced, to my knowledge, Mr. Lewers. I have never seen it, and didn't know of its existence.

Mr. Lewers—Well, that is a very surprising statement, as I personally handed it to you, and Mr. McCormick, when you were sitting together at the counsel table in San Francisco. **[2193]**

Mr. Mills—You handed me what purported to be a copy, a description of some lands, and a copy of the original lease.

Mr. Lewers—I handed you an original.

(The last question is read by the reporter.)

A. No, I did not.

Mr. Mills—Now, just a minute. That is further objected to for the reason that the witness stated that he never was in the Elk Hills until the spring of 1911, and it appears by the record that the patent was issued in 1904, in the month of December.

Q. By Mr. Lewers—Had you finished your answer, Mr. Anderson?

A. No.

Q. Kind complete it.

A. This question recalls the fact that the answer I gave to a question on cross-examination ought to be revised somewhat. I stated that perhaps I would have included this land if it had been patented, I perhaps might have included it in the lease, or in my recommendations for lease, though I didn't think I

would. Now, I made a report on lands through the Midway and McKittrick fields and wherever I expected oil to exist, in 1907, and accompanied this report with lists on which I included all lands that had any prospective value for oil. These lists did not include any lands in Township 30-23, except section 31, and that was included because it was contiguous to the Buena Vista anticline, part of it was; and this was made after the lands involved in this suit were actually patented.

Q. Were there any restrictions upon you as to the land that you could include in that recommendation?

A. There was not.

Mr. Lewers—That is all.

RE-CROSS EXAMINATION
OF FRANK M. ANDERSON

By Mr. Mills: **[2194]**

Q. Isn't it a fact, Mr. Anderson, that Section 31 which you just referred to, was included in the lease of August 2nd, 1904, with the Kern Trading and Oil Company?

A. I don't know; I don't know that it was included.

Q. Do you know that there was a lease executed by Mr. C. H. Markham on behalf of the Kern Trading and Oil Company and presented to Mr. Eberlein to be executed by him on behalf of the Southern Pacific Railroad Company, which included Section 31 among other lands?

A. I never saw that lease.

Q. Did you prepare that recommendation for any of the lands in that lease?

A. Quite likely I did.

Q. Now, that lease included all of the lands whose descriptions I gave you on cross-examination, and as to which you stated that you had never made a report verbally or otherwise until after January 31st, 1905?

A. I stated that I had visited all these lands, or most of them, I think perhaps all of them, unless it might have been Sections 13 and 25 of 30-22, and that I did not recall making any written report, but that I did make a verbal report, and perhaps a map. I have no recollection of the map, but if I made any report other than a verbal report, it was as represented on the map.

Q. Did you understand at that time that that was in preparation of a list of lands to be included in a lease to the Kern Trading and Oil Company from the Southern Pacific Railroad Company, defendant?

A. I did.

Q. Did you know that that lease was prepared and executed by Mr. Markham on August 2nd, 1904, and that it is in evidence in this case?

A. I did not know that. **[2195]**

Q. Do you now know that it includes all the lands whose descriptions I gave you?

A. Well, I don't know it except from hearsay.

Q. Now, what was the purpose of another and different lease covering the same lands in 1907?

A. I think—you say what was the purpose?

Q. Yes.

A. The purpose of the subsequent lease was to include all the possible lands or prospective oil lands that were omitted from the former lease; that was one of the purposes; I know I was given to understand that in the request for a report.

Q. I don't care what you were given to understand. I want just what you know of your own knowledge.

Q. By Mr. Lewers—You may answer.

A. I was given to understand that the examination—

Q. By Mr. Mills—I said I didn't want what you were given to understand. I only want what you know of your own knowledge.

Mr. Lewers—Well, I submit that is responsive. You asked what his understanding of the situation was.

Q. By Mr. Mills—Did you know that this other and subsequent lease was to contain the same lands that were included in the lease of August 2nd, 1904?

A. No.

Q. You thought that it was to include separate lands, didn't you, which were omitted?

A. They were looking to a revision of the lease, which revision should include all lands of a prospective character not included in the former lease.

Q. And yet if these lands had been patented at the time you were out in 1903, and by these lands I mean the lands in suit, you would have recommended them to be included in that lease?

A. I didn't recommend them to be included in the report I made [2196] in 1907.

Q. I say if they had been patented in 1903, you have stated that you would have recommended those lands to have been included in that lease?

A. I said perhaps I would, and then after a little thought I said that I hardly think that I would have included them, because I didn't consider those lands oil lands.

Q. You didn't have any opportunity to know whether they were oil lands, did you, if you hadn't examined those lands prior to April, 1911, and the lease to which you refer was made in 1907?

A. I did give them what examination I thought they required.

Q. That is, you though you would make a long distance examination, standing on an exceeding high mountain, when Mr. Owen pointed out the Elk Hills and the lands in suit, or the equal of them, so to speak. Matthew IV-1.

Mr. Lewers—I instruct you, Mr. Anderson, that you are not required to answer purely frivolous questions.

Q. By Mr. Mills—You didn't expect, did you, Mr. Anderson, to have the court understand you that an examination of that character would be an ex-

amination determinative, even to your own mind, as to the petroleum-bearing character of those lands?

A. Yes. I expect to be understood to mean that I thought the most essential examination was a study of the outcrop and the conditions represented throughout the field generally along the flanks of the Temblor Range, and that such an examination would reveal more facts pertinent to the questions and determinative of the questions involved, than any examination I could make riding over the surface of the Elk Hills, where no marine beds were exposed, and only a limited amount of fresh water beds could be seen cropping out on the surface.

Q. Well, how did you know that prior to the time you went into the hills? **[2197]**

A. I trusted Mr. Owen's statement of the fact.

Q. Yes. So that you had no personal knowledge at all of that, did you?

A. Except his statement was confirmed by what I saw with my own eyes about the flanks of the Temblor Range and the McKittrick and Midway.

Q. Do you mean to say, Mr. Anderson, that in preparing a list of lands to be included in a lease from the Southern Pacific Railroad Company to the Kern Trading and Oil Company, involving a great many thousand acres of valuable lands, that you would have made a recommendation without examination at all of the lands which you were to recommend?

A. Well, I thought that I had in this particular case made sufficient examination.

Q. Didn't you state yesterday on cross-examination that you always made it a point to go upon the lands as to which you made recommendations so as personally to examine the lands?

A. I believe I stated that I never reported on lands that I could not find or that I had not reached —didn't have satisfactory proof that I had been on.

Q. And yet you are willing to state that standing six miles away, looking at those hills, you could have formed an opinion about the recommendation as to an important lease of that kind, without actually going on them?

A. Did I say that I had made a report on them?

Q. No. No; you did not. You said you hadn't made a report on them.

A. I think that I was able to draw valid conclusions, trustworthy conclusions.

Q. You had never been in the Elk Hills until April, 1911?

A. No; I had not.

Q. Well, now, is not that the real reason why you didn't [2198] recommend the lands to be included in the revised list to the Kern Trading and Oil Company—was because you didn't have sufficient knowledge to make a recommendation?

A. No. The real reason is that I thought they were not oil lands.

Q. And you took a statement from Mr. Owen to that effect?

A. No; I didn't. I took Mr. Owen's statement in connection with what I could see in the neighborhood, which formed the basis of my conclusions. Mr. Owen's statements I thought were trustworthy. I never found Mr. Owen disposed to deceive me as to matters of fact, and I never attempted to deceive him. I tried to tell him the truth, and I felt that he tried to tell me the truth.

Q. You were willing to take hearsay testimony as to that at that time and not make any examination at all until April, 1911?

A. His account of the—

Q. Well, just answer the question. I didn't ask you about his account.

Mr. Lewers—As long as it is responsive, he can answer it in his own way.

A. Yes, if you wish to call it hearsay evidence. I felt that his examination was satisfactory. His account of them was quite satisfactory to me.

Q. By Mr. Mills—How long do you think you would have held your position in the Southern Pacific Company's geological department if you had been bold enough to make a recommendation one way or the other about lands in the Elk Hills which you had never been on in 1907?

A. I am sure I don't know how long I would have held my position. Probably as long as I did hold it.

Q. Would you keep in your employ a geologist

who would make a recommendation on lands that he had never been on at all?

A. Yes. **[2199]**

Q. —involving some 6,000 acres—

A. Yes; under some—

Q.—and extending for a distance of six miles one way and three miles the other?

A. Under such mitigating circumstances as existed in this case I would.

Q. By the "mitigating circumstances," do you mean the fraudulent and unlawful urging of the selection of these lands?

A. Not at all. I mean the very unfavorable appearance after due reflection, and the position of the Elk Hills. The geographical position is one of the determinative factors in the case.

Q. You say that you never heard of any gas being discovered in the Elk Hills prior to the drilling of these wells which appear upon Defendants' Exhibit 16. Is that correct?

A. I believe I did state that.

Q. Don't you know that there was a well drilled in 1901, or 1900, in the Elk Hills, on Section 11 of 31-24, where gas was discovered at about the 500-foot level and burned for fuel?

A. I had no knowledge of that, Mr. Mills, until within the last six months.

Mr. Mills: That is all.

REDIRECT EXAMINATION OF FRANK M. ANDERSON

By Mr. Lewers:

Q. Now, coming right back to the proposition Mr. Mills has asked you, and basing your answer upon all of the examination you have made today, was it really necessary to go into the Elk Hills in 1903 and '04, in order to reach a correct determination as to whether or not that was oil land out there?

A. I think it was not necessary.

Q. Where do you find the evidence that enables you to reach **[2200]** the conclusion that those are not oil lands? That is, where are the physical evidences situated?

A. Please read that question again. (Question read by the Special Examiner.) You mean oil lands in a commercial sense?

Q. In a commercial sense.

A. I might answer like this: Since the drilling of those wells and the actual discovery of a little oil in those hills—

Mr. Mills: I object to that.

Q. By Mr. Lewers: My question is directed to a time prior to any drilling in the Elk Hills.

A. As I have stated before, we have to take into account the general geological conditions existing about the flanks of the Temblor Range and the country at large and the geographical position of the Elk Hills and the conclusions reached by a proper consideration of the conditions under which marine

and fresh water deposits were formed and laid down over that region, and all other such considerations; and the proof or the data upon which an adverse conclusion could be based would be derived from an examination, chiefly, of the outcrops, and from the consideration of the geographical position of the hills with reference to the outcrops, and so forth.

Q. And would it be necessary for you to go into the Elk Hills to get any of that data?

A. I don't think it would.

Q. Did you have any reason to question the accuracy of Mr. Owen's statement concerning the outcrops in the Elk Hills?

A. I did not.

Q. And did you accept that as one of the items in reaching your conclusion?

A. I did.

Q. And what has been the result of your subsequent investigations, as far as confirming or disproving what Mr. Owen told you? **[2201]**

Mr. Mills: That is objected to, as it has been gone into two days by you on direct examination.

A. I think that nothing has yet been proved commercially valuable in the Elk Hills, or valuable in any way, that would upset my original conclusion that the land was not commercially valuable for oil.

Mr. Mills: I move that the answer be stricken, as a conclusion of the witness, not responsive to the question at all.

Q. By Mr. Lewers: Are there any marine beds in their outcroppings?

A. Not that I know of. As I stated before, I believe there are not.

Q. Do you know whether or not, Mr. Anderson, the destruction of the records and files and papers of the railroad company that took place in the fire of 1906 had anything to do with the preparation of a new lease to the Kern Trading and Oil Company?

A. I hadn't thought of that. Perhaps it did.

Mr. Lewers: That is all.

RECROSS EXAMINATION OF FRANK M. ANDERSON

By Mr. Mills:

Q. Could you determine the structure of the Elk Hills, standing off on that high mountain with Mr. Owen in 1903?

A. Yes.

Q. Without personal examination?

A. Yes.

Q. You knew, right away, it was anticlinal in structure?

A. It appeared to be so as I came in on the train.

Q. And you knew there was a line of seepages running from Temblor down as far as Sunset, at that time, didn't you, on the eastern flank of the Temblor Range?

A. Yes; there were seepages of oil and oil-sands strewn along **[2202]** the line between McKittrick and Sunset.

Q. And those two facts were sufficient to make you believe that the Elk Hills were oil lands, without anything further, weren't they?

A. No sir.

Q. Didn't you immediately ask Mr. Owen, the very first question, whether he didn't believe those lands were oil lands?

A. They were not sufficient to base any such judgment upon.

Q. Well, did you immediately ask him if they were oil lands then?

A. As I stated in my direct testimony, the first appearance of these hills aroused my interest, and the second appearance, and the third, and when we were on the hills—this high hill north of the Temblor Valley—the Elk Hills were in plain sight and their structure was apparent from that point of view and I asked him if he had been there and he said he had and he said that the Elk Hills—

Q. Now, I am not asking you anything about that at all. I am asking you why you asked him if they were oil lands if you thought they were not oil lands.

A. Because I had a suspicion that they might be. But that was at first thought. After due reflection I thought differently.

Q. And you came to that conclusion, without ever going in there at all, while standing on a high mountain six or eight miles away?

A. I didn't come to any conclusion.

Q. Didn't you say you did?

A. My conclusion at that time was that they were a long ways out from the outcrop, where I expected to find the outcrop.

Q. They are not any further out than the Buena Vista Hills, are they?

A. Oh, yes sir.

Q. In fact, they are within a mile to two miles nearer than [2203] the Buena Vista Hills—the outcrop—aren't they?

A. No; no.

Q. Well, is not that true?

A. No.

Q. Doesn't the anticlinal structure come clear up as far as the railroad track in Section 14 of 30-22?

A. No; they do not. The structure that is apparent at the railroad track is connected with the anticline in the hills north of McKittrick, north of the McKittrick Hills.

Q. Don't you know, Mr. Anderson, and aren't you fair enough now to state, that any competent geologist, standing on the McKittrick front there, knowing that line of seepages from Temblor down to Sunset along the eastern flank of that range, and knowing the anticlinal structure of the Elk Hills, would not know his business unless he at once believed that those lands were favorable for the accumulation of petroleum?

A. Mr. Mills, that is an assumption based on an assumption, is it—your question?

Q. No sir. I am asking you as a fact if you don't know that any competent geologist would instantly determine that that was a favorable spot for the accumulation of petroleum?

A. You are assuming that he knew those things and that these conditions existed along the flanks of the Temblor Range—he knew them. Now, I presume an answer based on presumption would be sufficient. If I was in the vicinity of a populous city, on a hill surrounded by a blue fence and containing monuments or wooden and stone slabs on which were engraved the names of deceased men and women, I would think this was sufficient evidence that this place was a cemetery, without having the bones dug up and the skeletons identified. Now, the Elk Hills look to me today to be exactly in that class of things; it looks like a cemetery of disappointed hopes.

[2204]

Q. I am not asking you about it now; I am asking you about it at the time when you determined, in 1903, after one or two years' experience in geology.

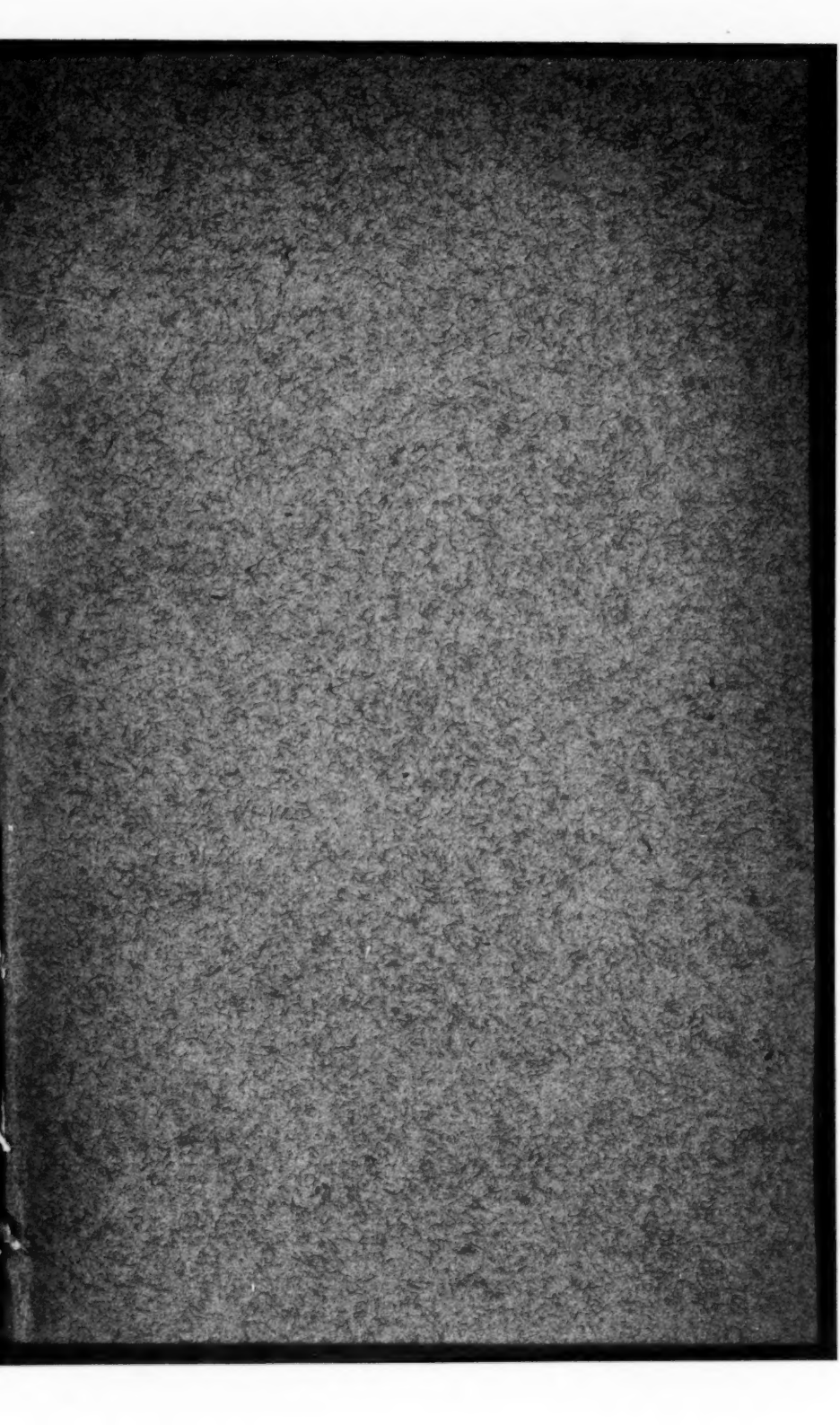
A. I concluded at that time that it was a good place for a cemetery.

Q. Now, are you acquainted with Dr. Branner?

A. Yes.

Q. Do you regard Dr. Branner as a competent geologist?

A. Yes; as far as his competency is concerned, he is a competent geologist.



Q. Well, he would compare rather favorably, wouldn't he, so far as education, experience, competency in geological work, after some thirty or forty years of it, particularly in oil geology in different parts of the country and in California, with the experience of a young man like yourself, who had had some training in mineralogy in college, who had done some timber cruising for a railroad company, and who had had three days' experience in the West Side field? You would say, to be fair, that he would compare favorably, at least, with you, in respect of his judgment as to what those hills appeared to be?

A. I think I could say that, as a man and as a geologist, Professor Branner would compare favorably with nearly anybody. The question, it seems to me, is concerning his specific conclusion—not the man himself.

Q. Now, Dr. Branner, after learning the structural formation of those hills, and after making some examination of the line of seepages to which I have referred, made the statement that it was even unnecessary to know anything about the oil seepage or gas blow-out in Section 32, which has been referred to in this case, but that, merely standing at a distance, knowing those facts, a competent geologist would not know his business unless he at once concluded that the Elk Hills were petroleum lands. Do you [2205] concur in that statement of Dr. Branner?

A. I certainly do not. I think—

Q. And you know, too, do you not—

Mr. Lewers: Just a minute. Let him complete his answer.

A. (Continuing) I think his judgment was not based on sufficient data.

Q. By Mr. Mills: You know too, do you not, Mr. Anderson, and have designedly concealed the fact in your testimony here, that the three wells of the Associated Oil Company came in as gushers, and one of them at a rate of more than 2000 barrels the first day, and one of the other wells flowed at the rate of 1000 barrels a day; and are you willing to now state on the record, in the face of those facts, which you must know, that the Elk Hills have no value for petroleum, and, particularly, the lands in this suit?

Mr. Lewers: Object to the question, on the ground that it makes an assumption that there is no foundation whatever for. Counsel for government sometimes says 5000 barrels a day, sometimes two, sometimes three—it depends altogether on the state of his imagination, apparently.

Mr. Mills: Well, it came in at 5000 barrels a day, according to Mr. King, of the Associated Oil Company. I am just cutting it in two, Mr. Lewers.

Mr. Lewers: According to Mr. King where? Where did Mr. King say that?

Mr. Mills: I will show you, before we get through with this case.

Mr. Lewers: You have promised many things, but have not shown any of them.

Mr. Mills : I am not yet having my innings in this case.

Mr. Lewers : You have had your innings.

Mr. Mills: Well, I am going to rebut some statements you [2206] have made.

A. I don't know that the statements made by you are true. I heard, and saw in the papers at the time, that one or two of these wells had flowed at the rate of 300 barrels per day, three or four hundred barrels a day, and I saw evidences on the ground that there had been a spurt of oil; but it was not conclusive of any commercial value and, in fact, taken in connection with the tests that were made, and of which I had official information, I am justified in stating that nothing has been proved yet of commercial value in the Elk Hills.

Q. Did you make the statement, in the month of March, to Mr. Veatch, that you knew the value of those lands in suit for petroleum, but that, due to your connection with the Southern Pacific Company, you could not testify for the government in this case.

A. I did not.

Q. Did Mr. Veatch visit you, in March of 1911, at your office in San Francisco, or meet you there in San Francisco?

Mr. Lewers: 1911 or 1912?

Mr. Mills: 1912.

A. Mr. Veatch sent word to me that he would like to see me.

Q. I am asking you whether he visited you.

A. And I believe he did visit me.

Q. In the month of March, 1912?

A. I would not say whether it was the month of March. He asked me out to lunch with him. We went over to the Palace Hotel.

Q. Well, didn't you state to him, in a conversation with him, that you knew the value of these lands in suit for petroleum, but that you could not testify for the government because of your connection with the Southern Pacific Company?

A. No; I did not tell him any such thing.

Mr. Mills: That is all, sir. [2207]

The Witness: I would like to state what I did tell him.

REDIRECT EXAMINATION OF FRANK M. ANDERSON

By Mr. Lewers:

Q. Proceed.

A. I gave him some insight as to my personal regard for Professor Dumble; and that is as far as I went.

Q. Was there any discussion of the character of the Elk Hills for oil or any other purpose?

A. Not that I recall.

Q. And that was during a social meeting at lunch, was it?

A. Yes. The contents of the conversation was chiefly directed to matters of record, and it included

locations made by the Eight Oil Company and the Buena Vista Land & Development Company.

Q. Was Mr. Veatch using a luncheon engagement for the purpose of interviewing you and getting your knowledge of conditions concerning Mr. Dumble and concerning the Buena Vista Land Company and the Eight Oil Company?

A. I assumed so. He wanted to see what I might be willing to tell him in regard to those matters.

Q. Did he ask you anything about the geology of that country?

A. I don't recall that he did.

Q. Then it was in the nature of obtaining information that was not geological at all, was it?

A. I don't know, of course, what his real purpose was. But I do know that I very guardedly told him only about matters of record, that he probably knew already.

Mr. Lewers: That is all.

RECROSS EXAMINATION OF FRANK M. ANDERSON

By Mr. Mills: **[2208]**

Q. Mr. Veatch's primary purpose was to ascertain whether you would testify for the government in this case, was it not, Mr. Anderson?

A. He didn't ask me that.

Q. And didn't you state to him then and there that you were in such a position with the railroad company that you could not do it?

A. Why, what position was I in with the railroad company?

Q. You had been in their employ, and you didn't feel like testifying in this case against them.

A. That is no reason why I should not testify as to the truth, whatever it might be.

Q. I am not asking you whether it is a valid reason or not; I am asking you whether it is the fact.

A. It is not the fact. Now, I never did have any love, nor do I have any love now, for the Southern Pacific Company as a company.

Mr. Mills—I object to that statement and ask that it be stricken from the record.

Mr. Lewers—I ask that it stand. That is all.

[2209]

JAMES M. SHAW, a witness called and sworn on behalf of the defendants, testified as follows:

DIRECT EXAMINATION.

I was general superintendent of the Rio Bravo property, and was connected with that company since July, 1903, and am now connected with them; the headquarters of the company are now at Houston; in 1904 I was at Sour Lake, in Hardin County, Texas, about 23 miles south of Beaumont; I remember Mr. Griffin very well at Spindletop, Welsh and Sour Lake; I first met him in 1902; he first began work as a mechanical engineer on or about the first or second day of June, 1904; I had no knowledge of Griffin's being employed prior to that date; my

knowledge of the men working in the field prior to the first of June, 1904, was acquired by the time sheets, by the employment; I employed most of the men for the field work, and the time keeper took the time down, and the payrolls were made up at the end of each month; I had known Griffin for quite a while from sometime in 1902; he was not working for the Rio Bravo Oil Company before the first of June, 1904.

The first of June, 1904, Griffin went to work for that company, taking down two 10,000 barrel steel tanks at Gladys; I placed him on the pay-roll, and he reported his time to me, and continued on the pay-roll up to the close of August, 1904. I communicated with Griffin by correspondence, by wire, by telephone, and personally from July 1st to August 28, 1904.

I had talks with Griffin on jobs at Welsh, Saratoga, and Sour Lake; he went to New Orleans to make arrangements for some new bottoms in the tanks which were cut down, and I was in communication with Griffin at all times.

During the time that Mr. Griffin was employed by the Rio Bravo Company did not make a trip to San Francisco with Professor Dumble; if he had done so I would have known it; the only time I knew of Griffin being out of Texas during his employ- **[2210]** ment with the Rio Bravo Oil Company was the occasions when he went to New Orleans.

Griffin's title during the time he was employed

by the Rio Bravo Oil Company was given as Mechanical Engineer; he did not handle any money: it was all paid through checks; the checks were made payable to the men whose names were on the time sheets. In 1904 there was a treating plant constructed by the Rio Bravo Oil Company at Welsh, Louisiana, and a man by the name of Stillman, an engineer, had something to do with the construction work. I met Stillman at Houston and in Welsh; I am not positive about the date, but I think it was 1904; it seems to me it was in the early Spring that Stillman was there, and Griffin was not working for the company at the time Stillman was there .

I am familiar with Mr. Griffin's handwriting; I have seen him sign the pay sheets time and time again. I identify the document now shown me, marked Defendants' Exhibit 29, as an itemized personal statement signed by T. J. Griffin and approved for payment by E. T. Dumble, covering the month of June, 1904; The signature is in Griffin's handwriting, and the approval is in Mr. Dumble's handwriting; it bears rubber stamp marks, and it is customary at the auditor's office, secretary's office, and my office to stamp on every communication the date it is received.

I identify Defendants' Exhibit 31, and recognize Mr. Griffin's writing on Defendants' Exhibit 32, and identify the document; I also identify the expense account of Griffin for the month of August, 1904, marked "2742," Defendants' Exhibit 33, and iden-

tify Defendants' Exhibit 34, consisting of ten wagon receipts, all signed by Griffin's signature.

The paper shown me marked time sheet roll 278 is a time sheet in favor of T. J. Griffin for services rendered from June 1st, to June 30th, 1904; it was made out in the handwriting of A. J. Aikin, my timekeeper, and was approved by me as Field **[2211]** Manager or Acting Superintendent, and signed by me; these sheets were sent in from my office to the auditor's office and stamped by the auditor on the day he received them, July 2, 1904, and is marked Defendants' Exhibit 35. I also identify Defendants' Exhibits 36 to 62, consisting of time sheets for work done by Griffin and his men.

I received a letter from Professor Dumble, dated Houston, Texas, May 31, 1904, Defendants' Exhibit 63, asking me to place Griffin on my pay-roll as mechanical engineer; the first time I had seen Griffin in regard to going to work was the day he came to Sour Lake as communicated in my letter to Professor dated June 2, 1904, Defendants' Exhibit No. 64; Griffin first went to work for the Rio Bravo Oil Company June 1, 1904; I saw Griffin at Welsh, Louisiana, shortly after I received Mr. Fay's letter dated July 2, 1904.

On July 30, 1904, I sent a telegram to Griffin at Welsh, Louisiana, dated that day, Defendants' Exhibit 92, as follows: "Your telegram 29th received. Will be in Welsh Monday. Roofing Pitch was shipped Monday. Will investigate delay." I do

not recollect whether I went to Welsh the next day or not, but I went up there at Griffin's request; I was there once a week, and every time I went there I met Mr. Griffin; every time I would go there to meet him he was there; I would know when Griffin went to go to New Orleans.

In 1904 I had passes, but not beyond the state line; all employees in the Rio Bravo Oil Company connected with my office had passes. I wrote a letter dated August 11, 1904, to Griffin at Welsh, Louisiana; he must have been at Welsh at that time, because I addressed him there; I was in close touch with him all the time and communicated with him by mail and by wire, and often by telephone; in case of emergency I always called him and he called me by telephone. **[2212]**

Plaintiff's Exhibit FFF I identify as a pass for the year 1904 on the Sunset Route; that pass is a facsimile of my own; I have never had a ticket that let me go further than El Paso; El Paso was the farthest point west that I could go on my pass.

CROSS-EXAMINATION
of
JAMES M. SHAW.

I never met James B. Treadwell; he left Beaumont, as far as I can recollect, as early as the Spring of 1903. I know the president of the Rio Bravo Oil Company, C. H. Markham; as far as I know, he was president for two or three years, that is, during the years 1903-1904.

During Mr. Griffin's employment with the Rio Bravo Company he took down two 10,000 barrel tanks to Gladys; one of them he shipped to Welsh and one of them to Sour Lake and erected both of them at those points; he repaired a 35,000 barrel tank at Sour Lake and painted it and he put up two 750 barrel tanks at Welsh and two at Saratoga and that was all the work he was engaged in during the time he was with the Rio Bravo Company. Then I did not keep track of what trips Griffin took until he went into the company. He might have made several trips prior to entering the company. The refining plant at Welsh was completed in 1906. That one vat on lease on the field proper was put up in 1905 and the treating still and vats were put up there in the latter part of 1905 or 1906 and no part of the work with reference to the plant at Welsh was done in 1904 except the new tanks. I remember an inspector or oil testor by the name of Stillman coming there in 1904, and was told that he was from San Francisco. I met him in Houston and went with him to Welsh. About the latter part of 1904, I think in December, they closed down the plant at Welsh and moved the force over to Humble, where there was a new **[2213]** field.

I will not say that Mr. Griffin was there during every hour of the time of those men when he would be at New Orleans, running from Beaumont to Saratoga, or Saratoga to Welsh,—these different places for which these expense accounts have been

put in; he might be at New Orleans or other places during a portion of that time, but Mr. Griffin, I will say, was very prompt in keeping in touch with me on all his movements; I knew when he left for New Orleans.

RE-DIRECT EXAMINATION

of

JAMES M. SHAW.

As long as I have been connected with the Rio Bravo Company, which is at Sour Lake, the Spindletop Power Company has never furnished any power or air to them, because they had their own windjammer.

The Rio Bravo well No. 107 was not a gusher, as testified by Mr. Griffin; she was a shallow well, and a pumper; to my recollection it produced oil of a gravity to 21; oil in the whole field run from 21 to 23, except well 108, in which the first strata of oil struck was at 12; there was no desire at that time to get a lower gravity oil, as Mr. Griffin testified; we wanted oil that would not flash at 110, below 110; and if anything did flash below 110 we would not use it for fuel oil, and we never did get anything that would flash below 110; the oil that we were getting there would satisfy our requirements, every bit, and all we purchased there in the Sour Lake field would satisfy our requirements; I never saw any use there for a lower gravity oil, and never heard any express used of wanting lower gravity; if it had been of lower gravity we would have to heat

it. They are right now having a good deal of experience with that in California; it is a fine fuel oil. [2214]

J. A. TAFF, a witness called and sworn on behalf of the defendant, testified as follows:

DIRECT EXAMINATION

I reside in Palo Alto, California, and am by profession a geologist. I have lived in California since 1909. I lived in Washington city for fifteen years prior to that time, where I held the position as geologist in the United States Geological Survey. During that time my attention was devoted to areal geological work, and economic resources connected therewith. My field of work fell chiefly in regions of stratified rocks, chiefly in the coal fields.

My training consisted of the usual preparatory courses in Arkansas and Texas universities. I graduated from the Texas University with the degree of Bachelor of Science, in 1904, and went into the United States Geological service soon after that. I was first employed as an assistant to Mr. Bailey Willis, and our field of work was in what is known as the Appalachian coal fields in the western part of Maryland and West Virginia—south.

I did work in Arkansas on my own account, in charge of an investigation of some coal territory south of Little Rock. I was connected with the State Geological Survey there from 1889 to 1894. I did general geological work, with particular reference to water. I was under Dr. J. C. Branner,

Stanford University. In 1897 I was at work in connection with coal and oil fields in Eastern Kentucky, West Virginia, and Northern Tennessee. Between 1897 and 1904, I was continuously engaged in the survey of coal and asphalt fields in the Indian Territory, now Oklahoma, and in 1905 I transferred my work to Utah and Colorado in the examination of coal fields, and was there during 1905 and 1906. The object of the work was the survey and classification of coal lands. I left the Government service in 1909. The last part of my work was devoted to the surveying of the oil fields in Oklahoma.

I was a member of the Oil Classification Board in the **[2215]** Geological Survey in Washington in 1909, with Ralph Arnold. I don't remember that Mr. Veatch was a member of the board. Mr. Veatch was a member of the Coal Land Classification board during a part of the time. I was a member of the Oil Classification Board a year or two,—I don't remember the exact time, because there was nothing done. I did not take part in the classification of the lands involved in this suit, and had only general information as to them, which I got from members who had worked in California, Ralph Arnold and others, and from certain publications that had been made in regard to the California fields.

Since I resigned from the Government service in 1909, I have been in the employ of the Southern Pacific as an assistant geologist and geographist in connection with oil chiefly; to a less extent with

metalliferous deposits. I have not been officially connected with the Kern River Oil Co. but a certain part of our work has been in the interests of the Kern Trading & Oil Co.; that is, we had to investigate the lands that were operated by the Kern Trading & Oil Co., as well as other lands in the oil fields, in our survey of the oil fields. I have done geological work in the Coalinga, McKittrick, Sunset and Midway fields, to a less extent in the Kern field. I began work in the McKittrick field in December, 1909. During 1909, and at other times since, I made particular investigations of the McKittrick field, and since 1909, more particularly in 1911, and to a certain extent in 1912, we made a careful survey of the Sunset and Midway, connected with and including the McKittrick field, a detailed geological survey, which was under my direction, and I spent part of the time in the field with the parties.

I have made a geological examination of the Elk Hills, in October and December, 1912, and January, 1913. I am fairly well familiar with the geological structure of the McKittrick-Midway region. I have made a study to determine for my own satisfaction **[2216]** whether or not the land embraced within the Elk Hills could be called oil lands, and concluded that it could not be considered profitable oil lands. The principal reasons for this conclusion are based upon the combined structure of the McKittrick and Elk Hills district; the character of the folds and their relative ages. All the geological evidence that

can be obtained in regard to the stratigraphic succession in the Elk Hills is obtained by a study of the same formations as the outcrop further west toward the foothills in the Temblor Range. The last formation which has to do with the geology of the district in respect to the occurrence of oil is what is known as the Vaqueros sand, which is considered to be of the Miocene age; overlying that is the Monterey shale, which is exposed in various parts of the Temblor Range, and along the foothills; this formation consists of shale with lenses of sand, particularly in the lower part, deeper down. Overlying the Monterey shale, there is a composite formation known as the McKittrick formation that, in this district, is recognized as consisting of two parts; the lower part is known as the Etchegoin, and the upper part as the Tulare. There is a formation below the Monterey commonly known as the Santa Margarita, but in places it is inseparable, practically, from the Monterey. The Etchegoin formation is recognized as being essentially a marine deposit, while the Tulare is recognized as being essentially a fresh water deposit. A change has taken place in the original position of the bedding planes of these successive formations. The Monterey formation has been quite extensively folded, tilted and faulted throughout its occurrence in the Temblor Range, and in the foothills, so far as exposures show. The general inclination is eastward with a downward dip toward the east, caused by the uplifting of the Temblor Range.

The Santa Margarita formation, being generally conformable with the Monterey, is likewise tilted, folded, and in many places faulted. The succeeding formation, Etchegoin, **[2217]** has been tilted to a less degree, and the Tulare to a still less degree than the others. It is recognized by a study of the West Side of the San Joaquin Valley and the eastern slope of the Temblor Range that there has been movement, uplifting and depressions in the Temblor Range from the early history of the geology as worked out in the Temblor Range. At the beginning of the deposition of the Monterey Vaqueros series, which are included together, there were lands along what is known as the Temblor Range, not a continuous range as at the present time, but they were elevated districts above the level of the sea. During the deposition of these beds, why, parts of the range were submerged,—to what extent of course cannot be told at the present time because of the uplifting and tilting that has occurred since. Then, following the Monterey series which were during an extensive subsidence, there was an uplifting of the Temblor Range to a greater extent than was recognized prior to the deposition of the Monterey series, so that the shore line at the beginning of the Etchegoin deposition, as far as we could determine, lay along what is now practically the eastern base of the Temblor Range. We recognize this by the inconformities and by the character of the deposits at the base of the Etchegoin formation. By "we" I mean

myself and others who have studied, and published it. There was a general agreement on that point amongst geologists who have carefully studied that territory.

The tilting of a formation that contains oil would naturally cause the oil to migrate upward if there are means of passage; and there would be a migration in a formation of this kind which is distinctly stratified, particularly along the bedding planes, and along the more porous layers of the formation. The presence of water would cause the oil to migrate upward rather than downward. The greatest migration would certainly be with the bedding planes.

The Elk Hills were certainly not in existence at the time **[2218]** when the uplifting of the Monterey formation by the Temblor Range occurred. The Elk Hills uplifted came into existence at a period of recent time, more recent in fact than any other uplift that is at present recognized in the McKittrick-Sunset district. The evidence as shown by the topography indicates that the Elk Hills were uplifted after the Buena Vista Hills. There certainly would be a migration of oil in the Etchegoin and Santa Margarita formations after the uplift of the Monterey formations. The oil would migrate laterally, that is with the bedding, very much more readily in a formation of the character of the Etchegoin than in that of the Monterey, because of the more porous character of the beds, the Etchegoin being composed in a large part of sands, particularly in

the region near the outcrops where we have studied it.

In the earlier stages there would be an island or series of islands, along the Temblor Range. There would be a lateral variation in the deposits of sand from the shore line or sources of the material into the interior, or in a direction towards the sea, or as, in this case, the inland sea of the San Joaquin Valley. The variation of the deposit would be a change in character from coarse to fine material near the shore; within reach of the waves and currents the material would be sorted, the finer material separated from the coarser material, and then carried out to deeper water where it would be deposited, so that near shore you would have the sands, and away from the shore you would have the silts and clays.

There is evidence, so far as can be worked out by an examination of the formations and near the outcrop, in favor of the fact that in the region of the Elk Hills and further out in the San Joaquin Valley there was, particularly during the Etchegoin and the earlier stages of the Tulare, continuous bodies of water, and that the coarser deposits would be thrown down near the shore line parallel with the Temblor Range, and that the finer sediments would be **[2219]** carried up further eastward and deposited in the region of the Elk Hills and other parts of the San Joaquin Valley.

In answer to the question as to where the oil would migrate during that time, if there was oil in

the bedding planes of those formations, I would say through the deposition of these formations to which I have referred. It is not presumed by any means that they contained oil. During that time, during the deposition of these formations, the Monterey, Santa Margarita beds were tilted and folded downward toward the center, eastward or toward the center of the San Joaquin Valley, and during this deposition there would naturally be a migration of the oil, if it occurred as it is presumed to have occurred, disseminated in the Monterey, Santa Margarita beds, and the evidence as shown along the McKittrick anticline is positive proof that the oil did migrate, and not only that, but is escaping along what is now the position of the McKittrick anticline.

We have as evidence of that fact that the lands along what is now the position of the McKittrick anticline was uplifted and folded and broken, and that the oil was escaping along these breaks. That continued from the beginning or very early in the deposition of the Etchegoin. The evidence of the early existence of this waste is shown in the character of the material that makes up the Etchegoin beds; that is, the lower part of the Etchegoin consists of the worn fragments, pebbles and the Monterey, which was broken up practically in place along this rift, and these pebbles show indications of having contained oil, that is, they bituminous pebbles of the Monterey; that shows that there were land conditions there at the time, and that they were

saturated with oil. That certainly indicates a waste as early as that period, and it has continued evidently from that time until the present, except it may have been locally submerged during the close, in certain parts, at least, during the close of the Tulare time, **[2220]** because the Tulare beds in places overlap the Etchegoin coming down directly upon the Monterey along in the McKittrick anticline.

That waste has evidently been very great. If the McKittrick anticline was folded and broken at that time, it has continued in the same condition until the present time, and at the present time, the principal seepages of tar, maltha and stiff petroleum is issuing from these fractures in the Monterey along the McKittrick incline, and there are extensive brea deposits along this rift that were produced in this way; that came from the Monterey and wells that are drilled off of the McKittrick anticline, off of the eastern edge north of the town of McKittrick, penetrate certain brea beds at various depths down to four or five hundred feet, showing that during the deposition of the Etchegoin at several stages, there were extensive brea deposits coming out from this fractured uplift along what is known as the McKittrick anticline, and there is no reason to believe other than that the waste has been going on continually practically from the earliest stages of the Etchegoin deposition.

The McKittrick anticline, as far as exposed, is an

unsymmetrical fold rather closely compressed and in places overturned towards the east, and in one locality particularly broken and thrust over, so that the Monterey rests now upon the top of the Etchegoin sands, the steeper dips are up on the east side and the shallower dips upon the west side; that continues southward until you find it passing beneath the overlapped edges of the later part of the Tulare.

There is a relation between the McKittrick anticline and the Buena Vista anticline. The Buena Vista anticline is in a sense a southerly continuation of the McKittrick anticline. In each one, there are subordinate folds, lapping folds, and the northerly folds, so far as can be recognized in the Buena Vista Hills, lap the side of the southerly folds of the McKittrick **[2221]** anticline.

The evidence is positively that the Elk Hills anticline is geologically very recent, while, as I have stated, the McKittrick anticline dates from prior to the Tulare time and Etchegoin time and the deposition of Etchegoin sands in which the oil is found in that general field.

I am familiar with the oil seepages, so-called oil seepages, along the Temblor Range. The principal seepages **[2222]** are along the McKittrick anticline; the seepages are quite numerous. They are near the north edge of the developed McKittrick anticline, southeastward, as far south as the edge of the township in which McKittrick is situated.

There are a few seepages in the neighborhood of Sunset, and there are some outcroppings—rather dry oil sands—in the region of Midway. The oil seepages that I observed in the locality of Midway are those lying just southwest of Fellows. I have not observed any others in that neighborhood. They are marked on the map in the neighborhood of the line between Sections 1 and 6, 32-22 and 32-23. The only oil seepages that I know of or have seen to the northwest of McKittrick toward the Canary Springs are those in the Temblor Range locally. These seepages do not belong to the same period.

The oil seepages in the vicinity of the Temblor Range are from the Vaqueros, just below the Monterey formation. The principal seepages along in the McKittrick anticline are from the Monterey; you might say, all of the seepages properly. The outcrop, oil sands, dry oil sands near Fellows appear to be in the Etchegoin, and those at Sunset, the principal seepages of the Sunset are from the Monterey, as I remember.

There are oil seepages at Coalinga on the same range of mountains, in the sands from the Vaqueros. Taking the line of seepages from those furthest north in the Coalinga District, down to Sunset, they cover nearly a hundred and fifty miles. There are some seepages north of Coalinga.

There are no seepages in the Elk Hills, to my knowledge. **[2223]** I have twice examined what has sometimes been called an oil seepage, and some-

times a blow-out, in Section 32, 30-24, in the testimony introduced in this case. During my first visit to it in 1912, there were outcroppings of stained sands on the sides of the gulch in the northwest quarter of that section; there had been a little prospecting; the sands at one place had been opened up to a depth of three or four feet, exposing the sands. In our opinion, it was not satisfactory in exposing the sands, so excavations were made after the first visit, so that when we visited it again, the whole portion of the sands that were impregnated had been cut through in a tunnel or excavation, so that the stained sands could be thoroughly inspected. The excavation was to a depth of about twenty feet in the hill and exposing the sands to the height of about nine feet, and in this cut the stained sands were passed through. The cut showed that the sands, as they occurred above the stained portion, were found to be the same at the furthest end of the cut as above in the exposure, so that we had an entire view of that portion of the sands that were supposed to have been impregnated by oil. The cut went clear through them, and at the depth of twenty feet, the stained sands had been entirely passed through and ordinary clean brown sands encountered.

On my first visit, I took samples before the excavation was made from the shallow pit, and on my last visit, **[2224]** I took samples near the entrance, and middle portion, and at the back of the cut, and

found that the sands most impregnated by this material were near the outcrop, within four, five or six feet of the surface, and that they varied slightly going back near the middle of the exposure, say ten or twelve feet in; the sands were very slightly impregnated. We found a thin zone around the edge next to the lean sands that was fairly well impregnated with this material.

The temperature of the sand when I was there was normal, and I believe it was considered that five or six feet in, it seemed to get a little warmer than at the exposed edges. I observed a slight variation in temperature myself.

The material, impregnating material in the sand, seemed to have collected at certain localities and segregated in balls or lumps, and sufficient so that it would cause the sand to adhere, and you could compress in the hand, and it would—and the sand would adhere because of the impregnating material. At other points, particularly along the edge furthest from the surface they seemed to have been segregated, thin layers of this material that impregnated the sand. It had a very disagreeable odor, essentially that you would get by stirring up bog. In fact, in the material where it seemed to be damp, why it was quite pronounced.

The first samples taken were tested by the use of chloroform by my assistant, who was with me, A. J. Heindl. We pulverized the material, the richer elements that we collected in the first instance, and

digested it in chloroform, and let it stand three or four days and we got no perceptible indication of color in the chloroform indicating **[2225]** the presence of bituminous matter. We took the same material and digested it in warm water and hot water, and we found a very large part of the material was dissolved, so that the residue was like coffee.

In addition, we tested the material by drying it, and applied fire and it burned like an ordinary piece of peet would burn, slowly, and we tried to detect the presence of petroleum or sulphur in the odor, and we failed to do that. I can't see any indication of petroleum in the alleged seepage. In my opinion, it is a finely divided or macerated bituminous or organic matter, that is, vegetable matter, residue from a completely decomposed vegetable matter. It is essentially the same as peet, and, basing my conclusions upon my examinations and tests, I would say that there is not the least evidence of petroleum or petroleum-gas in it.

I do not, in the main, agree with Mr. A. C. Veatch's testimony in relation to what he called a seepage or blow-out on section 32, 30-24, when he said—"I examined the seepage on two occasions and found a stained sand exposed at intervals for several hundred feet, on the west side of the gulch in which it is situated, and in one or two places on the east side. This sand contains some free sulphur. Tested with chloroform it gives no oil. The sand shows some carbon—particles of carbon—and it is

my conclusion that it represents an escape of gas from the oil-bearing zone, the gas carrying some oil with it; that this oil has been deposited in the sand together with sulphur coming from the gas, and that it has been fired—the gas has been lit—and that owing to incomplete combustion a little carbon has **[2226]** been left in some of the sand,—which makes it probable to my mind that any one or more persons in the past could have tested that and gotten positive results of oil, if the oil had not burned out. It would probably be, also, a volatile oil that would evaporate. If there were other earth movements it would be possible, I think, at some future time, to get a positive test of oil."

I did not find any indications of free sulphur, and the sand did not show pure carbon. It contains carbonaceous matter, partially decomposed, vegetable matter. I do not agree with his conclusion that "it represents an escape of gas from the oil-bearing zone." I do not know of any oil-bearing zone there, and there is no evidence in the least of any oil having been carried into that deposit, and there is no evidence that the material has been fired. Combustion sufficient to consume quantities of gas and oil issuing enough to be lit, would evidently discolor those sands. You would have indications of oxidation, and that is not present. Particles of material found there will burn when they are dried and put into the fire, and under no other conditions. If there had been combustion of gas there, it should have

burned the particles, and there is no evidence that such a thing took place.

In my opinion, a chloroform test made in 1899 or 1900, would not have shown the presence of oil there, as has been testified to by Mr. Youle.

I made other comparative tests to determine just what materials will show the chloroform reaction, indicating the presence of bituminous material or oil. I selected **[2227]** samples of bituminous coal, pulverized those, and subjected them to the same tests we did these bituminous sands, and we had indications of bitumen in the chloroform test greater than we obtained from the material taken from these samples. These deposits are not "bituminous sands." The term "carbonaceous" would be applicable, or you, might use the term "peaty sands." Tests made with the ordinary bituminous coal indicated the presence of bituminous matter; that is, we got a discoloration of the chloroform similar to what you would get by using an ordinary bituminous sand, —an oil sand. The chloroform test is the recognized test employed in determining whether oil is present in any sand.

I also tested oil sand obtained from surface outcroppings in a similar way. They showed a very pronounced indication of oil. That is, the chloroform was highly discolored, showing a solution of the bituminous material in the sand.

If there had been any oil present in the alleged seepage in section 32 within a hundred years, it cer-

tainly would have revealed itself by the use of the chloroform test, as I made it. I believe that an oil sand that shows any indication of oil to the eye, that you can perceive—you know it is oil-sand—will show positive chloroform tests.

There was no indication of any earth movement in that place except simple low folding. The rocks were slightly tilted. To sum it all up, that is not an oil seepage, and I am sure from my examinations that it is not a petroleum gas blow-out, and is not of the least signi- **[2228]** ficance in determining the oil character of those lands.

I made a careful examination of the localities mentioned in Section 14, 30-22, and also further west along the same drainage channel, to determine the nature of the bitumenous deposits, as to whether they were or were not oil seepages. I found at numerous localities along the canyon near the railroad, from the level of the present streamway upward for from fifty to twenty feet, occurrences fo dry brea mixed in fragments with the recent stream deposits. The material didn't impregnate the sands, by any means, in any way, but occurred in separate particles with the sand and shale fragments brought down the gulch, showing conclusively that they were transported recently. Not only that, but similar deposits were found along the stream upward to the present brea deposition, to where they occur in the anticline south of the town of McKittrick.

There are not oil seepages in the McKittrick anti-

cline south of the town of McKittrick. They are simply transported fragmental brea mixed with the sands brought down the stream and re-deposited along the banks of the present stream-way, simply float, and has no relation to any anticline in the Elk Hills, and is no evidence at all of the existence of oil in the Elk Hills. There is not any seepage or asphaltum indication anywhere in the Elk Hills that I know of.

There is a certain relation between the occurrence of coal and the occurrence of oil. Coal is a sedimentary or stratified deposit, and it has remained in the position where it was laid down, with the exception of local movements of the earth's crust, until the present time.

Oil, according to the accepted knowledge concern- [2229] ing its occurrence and its origin, originated as a disseminated substance in the rocks, where the organic material from which it had its source was laid down. Since that time it has been in a continual process, progress, of migration, so that with very, very few exceptions it is not found at the present time, at least in commercial quantities, where it originated, as in the case of coal.

Coal is produced from the accumulation of organic vegetable matter, deposited, as a rule, where it grew, in low-lying, flat, swampy land,—in some cases contiguous to extensive waters and at other places evidently considerably removed from extensive bodies of water; but, with rare exceptions, the

land conditions were stable for a considerable period of time and the surface was essentially flat, so that, by an accumulation which is recognized to be very slow, extensive deposits of vegetable matter would be accumulated, and finally submerged and entombed by later sediments, and finally reached the state in which we find it at the present time.

Deposits of sand, formations of sand, are recognized as being local in character, as occurring only in the presence of shifting waters, of currents that carry the sands along, or in currents and in the presence of waves along and contiguous to the shorelines of seas and lakes; and for that reason they are more local in character and more variable in thicknesses than the accumulations of coal, as a rule; and there are many other formations, such as limestone, and more local in character and limited in extent, as a rule, than shale deposits, which are laid down in the presence of **[2230]** extensive bodies of water.

Oil is almost invariably produced from some other formation than that in which it originated. It occurs, as a rule, in formations of coarse sediments; as a rule in sands. Oil in commercial quantity is obtained in some parts of the country from limestone, porous limestone; and, to a certain extent, oil is recovered from shale deposits in which the shale is more or less fractured, where the oil occurs in open spaces—fissures and fractures of the shale. But such occurrences are rare.

The rule applied in determining the presence or

absence of oil in commercial quantities are only to a very limited extent applicable in the determination of the presence or absence of coal in commercial quantities.

In making your geological examinations, you determine the successions of the beds and the extent of those beds in which the oil is likely to occur, in the same way, or a similar way, that you examine lands in which coal occurs, to determine the extent of the coal bed. But, in the case of coal, the coal, of course, is coextensive with its bed, where it was originally deposited. We use the same methods, to a certain extent, to locate the sands in which you presume your oil occurs, but you recognize the fact that the conditions are different in the case of the occurrence of the oil from that of the coal.

The mere existence of sand does not by any means indicate that the sand contains oil. Deposits of sand are not as persistent in their areas as the deposits of coal as a rule.

At the alleged seepage in section 32, the organic **[2231]** matter contains a large percentage of moisture. When put in a test tube and applied to the flame, it can be seen that the moisture is quickly removed. The test with hot water indicates that the organic matter is very finely divided, and to a large extent decomposed. The increasing temperature as you go into the deposit, indicates a slight oxidation. It was found that the increase in tem-

perature occurred where the material was wettest, contained the most moisture.

I do not agree with Mr. Veatch's statement that—"Where minerals occur in stratified rock, it is frequently possible to determine with exactness their extent and value and other factors important in their appraisement and development. That is the method which has been employed for many years by practical men in such subjects. Stratified rocks are laid down in relatively regular layers, for the most part, beneath the sea; "because it is not a fact that where minerals occur in stratified rock it is possible to determine with exactness their extent. Certain minerals, and minerals for the most part that occur in stratified rocks, are not determined with exactness or with ease as to their position, because they are as a rule determinated and they occur and are governed by conditions that came about after the rocks were deposited; whereas, if you refer to the deposits that are laid down as stratified rocks, and have not changed since they were laid down, as coal, for instance, why, you can determine its extent, and so forth, with a certain degree of accuracy by your observations.

I do not, in the main, agree with Mr. Veatch's statement when, in speaking of the analogy between oil and **[2232]** coal deposits, or other stratified beds, said—"They both occur in stratified deposits and are subject to much the same laws; and you can—In the case of a coal deposit, where the erosion

has entirely removed the strata around a given area, you have that area rising as a hill above the surrounding region. If, in such case, you find coal outcropping on one side of the hill and follow that coal bed around the hill, as you can, by natural exposures, and find it goes entirely around the hill, you know absolutely that the coal underlies the hill, and are justified in buying that land as coal land in the absence of any development. In a similar way, if you find a coal bed exposed on the side of a valley, dipping beneath that valley, and follow the bed around the valley, you know that the valley is underlaid with coal, and by the change of slope of the beds you can calculate the depth of that coal bed in that area which is underlaid with coal. In the case of oil or water you can follow the sand bed or other porous bed suitable for containing them, in exactly the same way as you do the coal bed. You can determine the existence of that porous strata in the same way you can determine the existence of the layer of coal, and in a similar way you can calculate the thickness of the depth of that porous bed under different portions of the territory. You follow the same method. The presence of oil or water in the porous bed can be indicated either by springs along the outcrop, in the case of water, or seepages in the case of oil, or failing those, their presence may be demonstrated by a well or a group of wells. Such a well or group of wells, taken in connection, or such seepages **[2233]** taken in connection, with the de-

terminal persistence of these beds and the geological structure warrant the development of territory in which you have not drilled. It shows the presence of the substances desired under the lands." I differ from him when he refers to coal in stratified deposits. The fact is, coal is a stratified deposit.

His criteria for determining the character and extent of the coal are correct. I would make exceptions to the fact that he states indefinitely the extent of the area of coal in this determination. If you follow the outcrop of a coal bed around a hill, see it dipping into the hill, if your area is of limited extent and you know beforehand that the coal bed that you are dealing with is a very extensive one and does not vary in character, is not broken, then you can determine the character of the coal within that land. The same way in the case where the coal dips beneath the valley; if your valley is of very limited extent and you can get the coal on both sides dipping into the valley and you determine beforehand the character of your coal, that it is extensive, does not vary—that is, does not vary beyond certain reasonable limits of workable character—then you can determine the extent of the coal, to a reasonable degree, under cover. But the conditions are entirely different with oil. Oil sands that crop out around a hill, for instance, in the way he designates the coal, would not be oil-sand that would contain oil in commercial quantity. An oil-sand that crops out around a valley in that way

would not be— In other words, in the first place, you would not be able to determine the extent [2234] of your original bed, your sand-bed or any other bed in which your oil occurred, in the manner that you would your coal. As is generally recognized, oil occurs in upward folded rocks. In such cases you do not find your sand in which your oil occurs cropping out around your anticline; you have to proceed to some other locality to get the character of your sand, some other anticline or monocline or other locality outside of the particular region you are considering. Beside that, you have no assurance of the extent of the oil in the sand after you have determined the extent of the sand. If the area of the anticline or monocline contains water, you have conditions to deal with that you have not where you are dealing with coal. If it contains no water you have conditions which deviate from your condition with the coal.

To explain more fully in that connection I will say that in case you have no water, in case the sand that is supposed to carry the oil shows no water, your oil would be in a different position and under different conditions to what it would be if it contained water; that is, if you have an anticline and no water is present, your oil would not be in the position you would expect it, that is, in the upward portion of the anticline.

The presence or absence of water would have no effect on coal in the least.

It is not possible, as a rule, to carry the determination of the persistence of sand capable of holding oil as far as you can carry the determination of the persistence of coal. **[2235]**

The value of the result of geological observations depends upon the accuracy of the observations, as Mr. Veatch states in his testimony, and also on the extent and adequacy of the observations, the thoroughness with which the geologist has gone into the investigation in the field with which he is dealing.

Recurring to the illustrations I have given of a coal outcrop around the valley, I will say that further geological determinations are necessary. You have to determine the character of the coal, the thickness of the coal beds, and you have to determine, as I said before, that the particular coal beds with which you are dealing are continuous over extensive areas. That can be determined by investigation on the outcrop of the beds and by prospecting, by drilling. In fact, coal operators purchasing coal lands, even though the beds crop out around the area with which they are dealing, insist, if they understand their business, that the land be drilled in order to determine the continuation of the coal beds.

That requirement is a reasonable one from a geological standpoint because, before they spend their money to pay the coal prices, they feel that they should have assurance that that coal bed is reasonably continuous and good enough to work. In most

cases, the presence of an outcrop alone is not sufficient to indicate the continuity of the coal, except locally, small areas, near the outcrops.

A comparison may be made between the determination of whether water will occur in stratified rocks and oil. As to the difference in the two determinations, I will say that water **[2236]** occurs in a similar way to that of oil, that is, it permeates, particularly, porous beds. Oil occurs in a similar manner, except that oil compared to water is extremely lower. In regions where rainfall is considerable, water can be depended on to be co-existent with the porous beds; and, for that reason, in determining artesian water areas, all that is necessary—the principal things that are necessary, rather, are to determine the position of your sands that contain the water and then the structural conditions under which those sands occur.

In the case of oil, it is by no means possible to determine in that way the source of the supply and the quantity of the supply that might go into the sands. It occurs under different conditions, and is governed by different conditions in the rocks.

I do not agree with Mr. Veatch's statement that the oil value of lands can be demonstrated in other ways except by the drill. The occurrence of oil and that of coal is not the same in every way, as Mr. Veatch has stated it.

I would not agree with the conclusion reached by Mr. Veatch that the Elk Hills were oil lands on the

evidence stated by him when he said—"In a general way, to outline the proposition, there are a series of porous beds and associated clays which are well designed, on the one hand to afford a reservoir for the oil, and on the other hand to prevent undue leakage, which may be traced for many miles along the flank of the Temblor Range, the east flank, in this case, being the important one for this question. In that area there are seepages which have been there from the be-**[2237]** ginning, which extend for a distance of over fifteen miles, showing the persistence of the oil saturation in these porous layers,"—because he has explained the structural character of the Elk Hills. He has enumerated a great many seepages, without reference to where those seepages occur, as to what formation they occur in, as to whether the formations in which they occur occurred in the Elk Hills or may be found within any reasonable depth in the Elk Hills. He has not investigated, evidently, the character of the McKittrick anticline that lies west of the Elk Hills. He should have determined the relative ages of the folds that would have a bearing on the accumulation of oil in the Elk Hills.

You could not at all make use of the entire outcropping for the determination of the character of that land. For the same reason, such determination would be inadequate, as is shown in the case of the determination of the oil character of the Elk Hills. The coal beds, the character of the coal land,

would be determined by the occurrence of the known coal beds that passed beneath that land within reasonable depths for mining.

In the case of the coal bed referred to in the question, or the determination of the character of coal lands by the outcrop of coal beds, it is a recognized fact that though there may be numerous outcroppings of coal around about the coal lands, if they are not known to be continuous and are not known to pass beneath those lands within reach of mining, they are not applicable in the classification of the lands. If the beds belong to different periods of [2238] geologic time they cannot be continuous.

I do not agree with Mr. Veatch's statement when he said that the beds "are exposed on the east flank of the Temblor Range and may be followed there for a good many miles and the porous character readily determined. Now, taking this distance of seepages of thirty miles, and which is, I may say greater than that, but that is an area that is adjacent to this that is easily shown, it shows impregnation of oil strata extending at least fifteen miles from a given center. Applying this distance of fifteen miles from the outcrop, it includes the Buena Vista Hills and the Elk Hills, and the only question that could remain regarding the oil value of the territory outlined in this way would be with respect to the synclinal areas, the valley lying between the Elk Hills and Buena Vista and McKittrick Hills, and the valley lying between the Buena Vista Hills and

the outcrop along the front of the range. Both the Buena Vista Hills and the Elk Hills fall within the proven area from geological determinations",—because there is not evidence in the field to determine by an examination of the ground that the single formation of sand that the oil is presumed to occur in is continuous or extends even to the Elk Hills. In the second place, the seepages that he refers to and that are the bases of the determination, generally occur in the sand that is presumed to extend under the Elk Hills, with very few exceptions; that is, the seepages of any importance are seepages that occur in the Monterey formation and are not even presumed to be oil-bearing, in commercial quantity, in the Elk Hills, or any- [2239] where else in this county, in this part of the region. And some of the seepages occur even below the Monterey; and even though they should extend—even though the formation in which they occur should extend under the Elk Hills, they would not be reached by any possible means by drilling.

I don't know of such a test having been applied in California in either oil or coal lands. I have said that the seepages and sand croppings occur along the West Side somewhere upwards of a hundred and fifty miles, and I cannot by any means say that there is an oil zone extending seventy-five miles to the eastward of the Temblor Range, that full distance.

It was not possible for a geologsit to go into the

Elk Hills in 1912, and absolutely eliminate what occurred there since 1904, for the purpose of making his conclusions until he make a thorough investigation of the field.

Q. By Mr. Lewers: On page 1355 this question was asked of Mr. Veatch: "Q.—What would you say of the evidence from the geologic structure and seepages to which you have referred, along the base of the Temblor Range, as in anywise tending to form an opinion in your mind as to the oil value of the land in the Elk Hills, and particularly in the lands in suit A.—Well, as explained, the determination of the oil value of the lands in the Elk Hills is predicated on the seepages which occur along the flank of the range. They prove the extent of the oil-impregnated zone and in that way demonstrate the oil value of the Elk Hills." What do you say as to that conclusion

A. I would say that it is not correct.

Q. Well, why do you differ with him in that statement?

A. Because he does not, and the fact of the case is that the oil seepages are not, for the most part, in the formations that he assumes the oil to be in the Elk Hills.

Q. Well, can you—is it possible, as geologic matter in [2240] connection with the determination of the presence or absence of oil, to say, from the existence of a line of seepages, that a certain terri-

tory at right-angles to those seepages a number of miles away is valuable for oil?

A. He cannot say it is valuable for oil.

Q. On page 1368, beginning at the bottom of the page, this question was asked: "Q.—You have heard it testified to in this case that one E. T. Dumble, alleged to be a geologist in the employ of the railroad company defendant in this suit, and the late Josiah Owen, also alleged to be, by testimony introduced here, a geologist in the employ of the defendant railroad company, during times prior to December, 1904, were quite frequently in the vicinity of McKittrick, formerly called Asphalto, and one, at least, of these gentlemen having made trips into the Elk Hills, would you say, or do you believe, assuming these gentlemen to be competent oil geologists, that at that time, prior to December, 1904, at that stage of development, they could have helped knowing the oil character of the lands in suit? A.—The geologic structure of the Elk Hills is so very evident—the hill, as explained before, is a structural hill—that anyone a geologist standing at Asphalto would naturally and at once suspect the character of the field. If that suspicion were verified by examination, as stated in your question, if the geologist had actually been on the ground, he could not have helped but know absolutely the anticlinal nature of the hill and from the development in McKittrick must certainly have regarded it as an oil production." Now, if we give to the expression

"oil proposition" the meaning of its having a value for oil actually in it, would you agree with his statement?

A. I would not.

Q. Why not? What is the matter with his reasoning?

A. Because he has not laid the proper foundation here for the determination of the character, the oil or non-oil character, of **[2241]** the Elk Hills to which he refers. A man standing at McKittrick, after going over the Elk Hills, if he is a geologist, would know the character of the structure of the Elk Hills. Looking at the development at that time, or even at the present time, would not by any means enable him to conclude the oil or non-oil character of the Elk Hills. The fact of the case is that at the present time, along the McKittrick anticline opposite the Elk Hills, all attempts at drilling have failed.

Q. By Mr. Mills: What is that?

A. I say, all attempts at drilling to obtain commercial oil there have failed.

Q. Whereabouts?

A. South of McKittrick and opposite the Elk Hills in the vicinity of the McKittrick anticline.

Q. All attempts have failed?

A. Yes. The wells are dismantled, and no production.

Q. I just wanted to understand what you said, that was all.

A. Yes. Then, if he had gone into the Elk Hills, —I mean to the McKittrick anticline, and had made a proper study of the geology, he would conclude, even without those wells that have failed to produce, that the conditions for the occurrence of oil in the Elk Hills would be extremely poor; in other words, he would have reason to believe that oil, if it occurred there, would be relatively of very small quantity.

Q. By Mr. Lewers: Now, would it be necessary for a geologist, to reach an intelligent conclusion, to take into consideration the stratigraphic history of that territory, the successive uplifting and folding, and so forth? Would that be necessary?

A. It would, and his conclusion would not be a proper conclusion until he had made such investigation.

Mr. Mills: Well, I don't quite see the relevancy of the question and answer, Mr. Lewers, because he stated he had made that **[2242]** investigation, in his evidence.

Mr. Lewers: You have made that statement twice. I wish you would point out where he made any such investigation. He did not do anything of the kind.

Mr. Mills: Well, the record shows where he said it.

Mr. Lewers: He absolutely refused to do so.

Mr. Mills: You quote isolated excerpts from the

testimony and attempt to make it appear that Mr. Veatch based his entire conclusion upon one fact.

Q. Mr. Lewers: Mr. Taff, is petroleum, in your opinion, organic or inorganic in its origin?

A. Organic.

Q. Is it a mineral?

A. I don't think it is.

Q. How would you define "mineral"?

A. "Mineral" as defined by mineralogists, from whom I get my definition, is a constituent part of the earth's surface that has a definite chemical composition, and—

Q. What is its origin?

A. Inorganic.

Q. Does petroleum have a definite chemical composition?

A. It does not.

Q. What is the most recent authority that you have examined in connection with this, Mr. Taff?

A. The most recent is that of Professor Rogers, of Stanford University, professor of minerology at Stanford.

Q. And does his work classify "petroleum" as a mineral or non-mineral?

Mr. Mills: I object to that. That is manifestly secondary evidence.

A. My memory is that he classifies it as a non-mineral.

Q. By Mr. Lewers: On page 1371, Mr. Veatch, in answer to a [2243] question by Mr. Mills, stated

the following: "In attempting to give a scientific meaning to the word 'mineral', some scientists have defined a mineral as any substance of inorganic origin of definite chemical composition occurring naturally within the earth. If this definition is followed out strictly, it would exclude everything in which organic matter has been a factor in its formation. Many deposits of iron ore will be excluded." Do you agree with that statement?

A. I do not.

Q. Why not?

A. It is recognized that many of the iron ore deposits are connected with organic remains. Those organic remains, since they were laid down in the rocks in which they occur, were non-mineral—I mean were mineral, inorganic, that is, they are the skeletons of animals. In the same way, in the oil fields here in the Monterey shales the skeletons of the foraminifera and the diatoms are inorganic; they are mineral. The organic part of the animal has departed to form the oil; before the iron ores were accumulated, the organic part of the animal had disappeared, the inorganic remains. The fact that the iron ore has any connection with the organic remains does not connect it in any way with organic substance, that is, as an organic deposit; and the iron ore has a definite chemical composition, though the iron itself may occupy the skeleton of an animal.

Whereupon the further taking of testimony here-

in was adjourned until Tuesday, March 11, 1913, at 10 o'clock A. M., at the same place.

On Tuesday, March 11, 1913, at 10 o'clock A. M., the further taking of testimony herein was resumed pursuant to the adjournment. Present: Willis N. Mills, Special Assistant Attorney-General, appearing on behalf of the plaintiff; and Charles R. Lewers, Esq., appearing on behalf of defendants. [2244]

J. A. TAFF, recalled. Direct Examination resumed.

By Mr. Lewers:

Q. Mr. Taff, from the examination you made of that alleged seepage, in Section 32, Township 30-24, and of the excavation which you say was made in it, what conclusion did you come to as to the extent or volume of that deposit?

A. My conclusion was that the volume of the deposit was a small area and local in extent, for the reason that it was traceable along the outcrop but a short distance at this locality and but a short distance at other localities in the immediate vicinity, and about the same position in the rocks, and from the fact that in excavating it we went through it. In other words, it is limited laterally along the outcrop locally, and as shown by the excavation it does not extend to any considerable depth from the outcrop inward.

Q. Well, how about vertically?

A. At the base, is underlain by impervious clays, which were dug down through a foot or so, expos-

ing thin sands below, and other clays that didn't contain any impregnation with carbonaceous matter; and vertically it extends up in the sand, but not through this particular bed of sand that contains it.

Q. And where was the greatest impregnation of this organic matter?

A. The greatest impregnation was nearest the surface; that is, within four to six feet.

Q. Is there any evidence of connection with any subterranean source of supply?

A. There is no evidence. The rocks were not broken, as far as could be determined from the outcrops and from the exposures made.

Q. Yesterday, in answer to one of my questions, you spoke of certain brea deposits in the vicinity of McKittrick, and, as I recollect it, stated that those were of Monterey origin. What do **[2245]** you include in the term "Monterey" in that connection at that place?

A. Along the McKittrick anticline, where the shales below the Etchegoin and Tulare are exposed, they are very much broken and folded and disturbed, and it has been recognized as far as could be determined from the character of the shales, in which no fossils have been found at this particular locality—

Mr. Mills: I object to your constant use of the term, "It has been recognized." You are asked for your personal opinion, Mr. Taff, and there is no way for me to make the objection except by interrupting

you. If you insist on using that term I want to know just what you mean.

Q. By Mr. Lewers: You may proceed, Mr. Taff, and explain that later. Finish your answer.

A. We have shales there that resemble very closely the Monterey shales where we know it to be in large extent and volume, and we have also the shales that lie at the top of the Monterey, which are reckoned as the Santa Margarita, and at this locality the shales are so nearly alike that separation cannot be made. And it might be stated, in that connection, that the reference might be made as "Monterey-Santa Margarita", in preference to "Monterey" alone.

Q. Now, in connection with your work in the government service, did you prepare any publication of any kind that was issued as an official document by the government in connection with classification of coal or other lands?

A. I did.

Q. What other sorts of deposits did you have occasion to examine?—I mean the deposits that were found in connection with stratified rocks—besides coal?

Mr. Mills:—That is objected to as immaterial to any of the issues of this case. **[2246]**

A. I had occasion to examine, survey and classify lands that contained extensive bituminous deposits, residues from oil pools or oil seepages, particularly in the southern part of Oklahoma, princi-

pally at what was at that time Southern Indiana Territory.

Q. By Mr. Lewers:—I show you a document marked "Department of the Interior Circular 6, 1904", and ask you by whom the material in that document was prepared.

A. It was prepared by myself.

Mr. Lewers: We offer this in evidence as Exhibit No. 113.

Mr. Mills: May I ask what the purpose of this offer is?

Mr. Lewers: The purpose of the offer is to show the view then recognized as the distinction between the manner of occurrence of coal and that of oil.

Mr. Mills: By this witness?

Mr. Lewers: Yes.

Mr. Mills: It seems, then, clearly to be a self-serving declaration, and is manifestly objectionable. The witness is on the stand and able to testify. Moreover, no proper foundation has been laid for the introduction of this paper, uncertified in any way. It is further objectionable because it concerns land remote some two or three thousand miles from the lands in issue; has no bearing on the questions involved here.

Mr. Lewers: We desire to read into the record from Exhibit No. 113 the introductory paragraph, as follows: "The conditions governing the location of asphalt lands are different from those relating to

coal. Coal is a stratified deposit formed originally with the deposition of the rocks."

Mr. Mills: Just one other objection that I want to interpose to this excerpt that you are reading now. It appears that the matter that you are now reading into the record relates to asphalt lands and not to petroleum lands.

Mr. Lewers. "It is simply a rock bed, and usually runs paral- **[2247]** lel with and is as extensive as ordinary rock beds with which it is deposited. Not so with bitumen or asphalt deposits. They permeate irregularly a mass or beds of stratified and porous rock or fill fissures where the stratified rocks have been cleft. There is no means to determine how far the rock conditions which admit the presence of the bitumen or asphalt may continue beneath the surface or how far such deposits may extend if the conditions be favorable, except by the use of the prospecting drill or by excavation. Fissures in the rocks which contain the species of hard asphaltum are irregular both in the bearing of their outcrop and in their direction and width downward. In any case it is not reliable to select asphalt lands for sale which extend beyond deposits actually proved, either by natural or artificial exposure, to be of commercial value. Neither would it be just to the purchaser of such lands."

The circular last referred to and offered in evidence is marked "Defendants' Exhibit 113-L.L."

Q. By Mr. Lewers: In your work for the gov-

ernment of classifying coal lands, Mr. Taff, how far in a general way did you carry your determination from the outcrop that was revealed either on the surface or by workings? If you can answer the question in that form.

A. That depended upon circumstances. In the first place, upon the character, quality and thickness of the coal beds, their structure, that is how steeply they were tilted, and the distance from the outcrop that such coals could be reasonably mined. and upon he extent of those marketable coal beds as shown from the outcrops and from artificial exposures, and the prospects or drill holes or mine workings. In no case, however, though, have the coal beds or group of beds associated together extended any distance along the outcrop; in no case were the lands suitable to be reliably classified more than a few miles from the outcrop. Unless, **[2248]** of course, the coal beds cropped out in circular form so that you had the coal coming to the surface on both sides of a certain district, and where the coal on both sides was found to be continuous either from outcrops or prospects or mine workings. If, on the other hand, the coal beds were found to be local in their natural extent, interfered with originally by islands or elevated lands within the coal swamp in which it was formed, or by erosion after the coal had been deposited and locally uplifted as sometimes is found to be the case, and the coal removed in part, if such conditions are found it would

not be reliable to classify the coal lands except in the vicinity of the localities where they are found to be continuous.

Q. Now you say that that classification would not extend more than a few miles in any case. What do you mean by "a few miles", if it is possible to give an answer to that?

A. Three or four, or in no case any more than six, as I remember, was the practice and what was considered to be by myself and associates at the time the lands were being surveyed and classified from 1904 when the first lands to my knowledge were classified by the government service up to 1909, when I left the service.

Q. If you had exposed along the Temblor Range outcroppings of coal at the points where the outcroppings of brea or of dried oil sand now appear substantially at the same intervals and substantially under the same conditions as the geologic age of the outcropping, and no outcropping of coal at all in the Elk Hills or beyond the Elk Hills, would you in following the methods of classification that were employed by the United States Geological Survey at the time you were connected with it, classify the land in the Elk Hills as coal land?

Mr. Mills: Just a moment. Read that speech.

(The last question is read by the reporter.)

Mr. Mills: Well, that is objected to, because it takes no ac- [2249] count of dips, and your question further leaves out the vast number of oil seep-

ages which have been testified to for many miles and extending into the Buena Vista Hills, and evidences of outcroppings in the Elk Hills; for the further reason that it is wholly immaterial.

Q. By Mr. Lewers: You may answer.

A. I do not.

Q. Why not?

A. For the reason that in the first place—

Mr. Mills: The same objection to the last question; the same objection.

A. (Continuing) those outcroppings occur at various stratigraphic positions, one below or above the other, and that those outcrops or seepages are comparatively local in many places, a number of miles between outcrops or alleged seepages. You would not have evidence of any continuous deposit of coal; you would have a number of coal horizons stratigraphically in the column through a thickness of several thousand feet. Each particular coal bed as it cropped out where the oil-sands cropped out or seepages are would have to be dealt with singly and the coal pertaining to that bed would control the classification of that coal only in the immediate vicinity of such exposures.

Q. By Mr. Lewers: Now, if you varied the assumption contained in my question by adding thereto the further assumption that wells as shown on the Barlow & Hill map in evidence for the year 1904 at McKittrick, and down through the Midway, revealed coal in a merchantable quantity, what

would your conclusion be from that additional evidence classifying the land in the Elk Hills at one end twelve or more miles from this line of wells and at the other end over five miles from this line of wells?

Mr. Mills: That is objected to for the same reason.

A. I would not classify coal lands situated as the Elk Hills are [2250] as coal lands from such evidence, for the reason, first, that the wells along the McKittrick anticline opposite the Elk Hills where it would be necessary for you to begin your operations on the coal to recover coal from those lands, such development at the time as shown by the Barlow-Hill map would reveal non-workable coal as it does reveal non-profitable oil.

Mr. Mills: That last statement is objectionable, and I move that it be stricken from the record; based on no evidence whatever in this case.

A. (Continuing) And for the second reason that there is no means to determine, and there are good reasons for believing that such coal in the Elk Hills, situated in the position as presumed oil-sands might be, would be beyond the reach of workable mining.

Q. By Mr. Lewers: Well, assuming that you could mine coal at the same depth that you could mine oil, would you change your conclusion, in the Elk Hills?

A. I would not.

Mr. Mills: Just a minute. Let me ask counsel if

he sees an analogy between the mining of coal and the mining of oil.

Mr. Lewers: No, I don't.

Mr. Mills: The only analogy that exists is in the continuity and persistency of the stratified beds.

Mr. Lewers: We have shown that that analogy does not exist.

Mr. Mills: We have tried to.

Q. By Mr. Lewers: Mr. Taff, are you familiar with what drillers term boulders in their drilling operations?

A. I am, fairly well.

Q. What are they?

A. They are various things; they may be boulders proper; but as a rule in rotary drilling, particularly in the presence of stiff clays, there is a tendency of the rotary bit in its circular movement to collect and compact balls of mud into hard stony like masses [2251] that are brought up as such balls and fragments and are often, and as a rule I believe characterized by drillers as boulders. Often it is reported clays and boulders, gumbo and boulders. Now, it is recognized on the outcrop boulders do not usually occur in gumboes and clays.

Q. By Mr. Lewers: Then those are not real boulders in the common or popular sense?

A. No.

Mr. Lewers: You may take the witness.

CROSS-EXAMINATION OF J. A. TAFF

By Mr. Mills:

Q. You say you received some education in the University of Arkansas?

A. Yes sir.

Q. How long were you in the University of Arkansas?

A. I was in the University of Arkansas about eight years.

Q. That has a preparatory department, has it?

A. It had then, but it hasn't now.

Q. So that children might enter there at an immature age, and after spending their early life in and about the university, might finally graduate from that institution in eighteen years, about?

A. No.

Q. With the degree such as the Arkansas University would give?

A. No; at that time the Arkansas University contained what they called a preparatory department, which was essentially a high school; students of high school grade were received and spent those years, some of them, in preparatory work, at the end of which they entered the collegiate department.

Q. And those so-called high school students entered into such **[2252]** common school studies as geography and arithmetic, and the usual branches of common school work?

A. Yes, high school work.

Q. Some grammar and the ordinary branches that we now find in the primary grades of any state east of the Mississippi River?

A. Not the primary grades.

Q. Well, what is called the primary; the primary is up to the Eighth grade?

A. No.

Q. Well, it is generally assumed to be, what we call the primary?

A. No, high school grades.

Q. Well, do you know of any high school east of the Mississippi River that teaches arithmetic?

A. I am not familiar with it now.

Q. In fact, before the entrance into a high school in any of the up to date schools east of the Mississippi River, arithmetic is a subject that must have been completed; isn't that true?

A. I am not familiar with that, no.

Q. The first mathematical study which a student gets in such a high school is algebra and plane geometry; isn't that correct, sir?

A. I don't know. It may be in some states, and it might not be in others.

Q. And geology and analgous subjects are not taught in the high school, except in the form of physiography?

A. No, I think that advanced—

Q. Now, you never—

Mr. Lewers—Wait a minute. Let him finish the answer.

A. I think that advanced geography in connection with the physiography is taught in high schools in most of the states.

Q. By Mr. Mills—Where is it taught, what high schools? [2253]

A. I am not familiar with it; that is my opinion.

Q. Did you receive any degree from the Arkansas University?

A. I did not.

Q. How did you come to leave the Arkansas University?

A. Well, there were two reasons; the first was that I had an offer for work in which I was particularly interested and which formed the major part, one of the major parts of my college work; another was that, like some other young men, I was obliged to obtain my own means for education, and I accepted an offer and left the university at about the close of my junior year.

Q. About the close of your junior year?

A. Yes sir.

Q. How many years are there in the university? There are the freshman, sophomore, junior and senior years?

A. Yes.

Q. Well, then the early part of your life at the Arkansas institution was in the primary or school grade?

A. Yes.

Q. Now, you say you went from there to the Texas university?

A. Yes sir.

Q. What does that institution offer in the way of

a degree? Does it offer a Bachelor of Science degree?

A. It does.

Q. How long did you spend in the Texas university?

A. Two years.

Q. Then you didn't get full credit, did you, from the time you left the Arkansas university until you entered the Texas university?

A. No.

Q. You say you got a degree of Bachelor of Science?

A. Yes.

Q. When did you graduate from the Texas university? [2254]

A. In 1894.

Q. Now, did you do any work directly or remotely connected with geology before you went to Texas?

A. Yes.

Q. Was that the work you referred to which you did under the direction of Doctor J. C. Branner, who was a witness in this case for the government?

A. Yes sir.

Q. What position did Doctor Branner occupy in the state of Arkansas at the time you were employed as an assistant?

A. He was director of the State Geological Survey.

Q. Was Doctor Branner at that time regarded as a great geologist?

A. No.

Q. He was not?

A. No.

Q. You didn't so regard him, did you?

A. Well, I didn't formulate an opinion in my mind at that time, because I knew very much less about him then than I do now.

Q. Well, do you regard him now as a competent and great geologist?

A. Yes.

Q. Now, you say you went to work in connection with the Texas State Geological Survey?

A. Yes.

Q. What year did you follow that work?

A. I began in the spring of 1889.

Q. 1889?

A. 1889.

Q. Now, that was before you went to the Arkansas university, was it?

A. No. After. **[2255]**

Q. During the time?

A. I was employed by Doctor Branner when I was at the Arkansas university.

Q. Oh, then you did some work with Doctor Branner while you were in the university?

A. No. I left the university in the spring of 1888 under the employ of Doctor Branner, and was employed by Doctor Branner and engaged on the

State Geological Survey during 1888, when I left the Arkansas service.

Q. Then you went to Texas?

A. Yes sir.

Q. Well, what year did you say you entered the University of Texas?

A. 1892.

Q. Then you were on work connected with the State Geological Survey before you entered the university?

A. Of Texas?

Q. Yes.

A. Yes.

Q. Is that correct?

A. That is correct.

Q. Who was the state geologist in the direction of that work at the time you went there?

A. Texas?

Q. Yes sir.

A. Mr. Dumble, E. T. Dumble.

Q. E. T. Dumble?

A. Yes.

Q. That is the same E. T. Dumble of whom it has been testified in this case that he was the consulting geologist of the Southern Pacific Company, was he not?

A. Yes. **[2256]**

Q. And you are working under his direction now? Is that right?

A. Yes.

Q. When did you first meet Dumble?

A. When I went to Texas, early in 1889; March, I believe.

Q. The position of state geologist at that time was a political position, was it not, in Texas?

A. It was in all states, as far as I know. Texas.

Q. And it was through the politics or political influence which Mr. Dumble was able to summon to his aid that he got the position of state geologist?

A. Not that I know of. I think not.

Q. Now, how long did you work for Dumble at that time?

A. I worked for Dumble from the spring of 1889 to 1894.

Q. Now, when did Dumble go to work for the Southern Pacific Company and its subsidiary corporations?

A. I don't know.

Q. Was it subsequent to 1894 and during that year?

A. I don't know whether it was during that year or subsequent. It was not before.

Q. So that at the time you disconnected from the government service and entered the employ of the Southern Pacific Company, defendant in this case, as an assistant geologist to Dumble, you had had a long acquaintance with him, extending from 1889 to the time you went into its employ in 1909 or 1910? Is that correct?

A. I had a close acquaintance with Mr. Dumble

between 1889 and 1894. From 1894 to the fall of 1909 I did not meet Mr. Dumble. I corresponded two or three times during that period—two or three letters passed—on scientific matters.

Q. Now, you say you worked from 1889 until 1894 with Mr. Dumble?

A. Yes sir. **[2257]**

Q. Now, what time was it that you were in the University of Texas for two years?

A. 1892 to 1894; that is, the years 1892-3, 1893-4.

Q. So that you were working for Dumble at the time you were still an undergraduate?

A. Yes.

Q. Now, when did you enter the Geological Survey of the United States?

A. In August, 1894.

Q. And you stayed continuously in the government service in that position until the latter part of 1909, was it?

A. Yes sir.

Q. What was the month that you left the government service?

A. You mean when I left the government service?

Q. Yes.

A. I left the government service in November.

Q. In November. What year?

A. 1909. That is, it ended with October.

Q. In 1909?

A. Yes sir.

Q. And did you then go into the employment of the Southern Pacific Railroad Company or Southern Pacific Company?

A. Yes.

Q. Employed here in California?

A. California and the adjoining states.

Q. But your chief employment has been examining lands which have probable or prospective value for petroleum, for the Southern Pacific Company?

A. Yes; our chief work has been devoted to the oil fields.

Q. And that has been also under the direction of E. T. Dumble?

A. Yes. **[2258]**

Q. Now, you say that you were a member of the Oil Land Classification Board in the Geological Survey when it was organized?

A. I was so informed.

Q. And were you a member of the Coal Land Classification Board also?

A. I was not.

Q. And one of the members of the Oil Land Classification Board was Ralph Arnold, the author of Bulletin 406?

A. Yes.

Q. You remained on that board or committee until the time when you left the government service to take up private employment?

A. As far as I know.

Q. Now, at that time Mr. A. C. Veatch was chair-

man of the Land Classification Board, of which the Oil Land Classification Board and Coal Land Classification Board were parts or members?

A. Not that I know of.

Q. And Mr. Veatch at that time was ex officio chairman of the Oil Land Classification Board?

A. I was not so informed.

Q. Well, you know that, don't you, as a matter of fact, Mr. Taff?

A. I do not.

Q. And during that time it was the business of the Oil Land Classification Board, in part, to classify lands which probably contained oil or which were prospective oil lands belonging to the public domain?

A. No; not that I know of.

Q. Now, you say that there was nothing during that time, while you were a member of that classification board, to call your attention, to it?

A. No. [2259]

Q. Do you think that a man who poses as a geologist of the United States government, occupying a position on an important board of that kind, classifying oil lands, would have his attention jolted or jogged by a proposal withdrawal order of some million acres of land said to contain petroleum?

A. Probably not.

Q. Don't think he would?

A. No.

Q. Did you ever hear of the order of September

27, 1909, which withdrew a great area of oil lands in California?

A. I believe I did. I don't remember the particulars.

Q. And as a member of the Geological Service of the United States, interested in the work of the Oil Land Classification Board, you would probably take some notice of such an order, would you not?

A. I might not.

Q. And you did, as a matter of fact, did you not, Mr. Taff, as a member of that board, in company with Ralph Arnold, classify about a million acres of land in California as oil lands, preparatory to the formulation and pronouncement of the order of withdrawal of September 27, 1909, known as the first executive withdrawal?

A. I did not. Neither was I informed that the board did.

Q. And you did, did you not, at that time, classify as oil lands, among a great many other townships, all of Township 30 South, Range 23 East, Mount Diable Meridian, which embraces all of the lands involved in this suit, as oil lands?

A. I never heard of that township before I came to California in 1909.

Q. You say you were a member of that board during the year of 1909 and up until the time you left the service?

A As far as I know. **[2260]**

Mr. Mills—I will read into the record at this point

from Bulletin 406, which is known as Defendants' Exhibit from page 23 of the bulletin:

"LAND CLASSIFICATION

The following areas within the McKittrick-Sunset oil region have been classified as mineral lands and such of these as yet belong to the government have been withdrawn from all kinds of entry, 'pending consideration of the question of legislation upon the subject, unless it be shown by reclassification or sufficient evidence that any particular tract or tracts thereof do not in fact contain oil,' lands classified as mineral include all those lying between the surface outcrop of the bottom of the lowest oil-bearing formation (Vaqueros) and a line marking the limits of the area in which the uppermost productive oil is known can be reached by a well five thousand feet or less deep. This margin is indicated on the geologic map accompanying this report by a heavy blue line.

Lands Classified as Oil Lands.

(Mount Diable Base and Meridian)"

Then follow 33 townships of land, in whole or in part, and including "Township 30 South, Range 23 East: all," which includes the lands in this suit.

Q. You had some discussion with Mr. Arnold and Mr. Veatch, during the months of August and September, 1909, about the limit at which you would classify lands said to be in a productive oil zone, did you not?

A. I did not.

Q. And at that time, after repeated conferences with Mr. Veatch and Mr. Arnold, you agreed with them that a five thousand foot well would be the limit for productivity in the oil zone?

A. I had no occasion to agree with them.

Q. You also conferred with Mr. Veatch and Mr. Arnold upon **[2261]** the field work which had been done, with a view to such classification upon the particular areas which should be included in that classification as a basis for the Secretary's order of withdrawal of September 27, 1909, did you not?

A. I did not.

Q. And you agreed specifically with each of those members of the board, did you not, upon all of the townships appearing on pages 24, 25, 26, 27 and 28, down to the word "San Bernardino Base and Meridian," as being proper to include in the classification of mineral or oil lands lying between the surface outcroppings and the bottom of the lowest oil-bearing formation and the line marking the limits of the area in which the uppermost productive oil zone could be reached by a well five thousand feet or less in depth, did you not?

A. I did not.

Q. You know that this classification of oil land was then used as a basis of the Secretary's order of withdrawal of September 27, 1909, and that immediately after your board furnished that classification, the Secretary made and promulgated that order, reserving and withdrawing all the lands described

in that classification and listed by your board, including the lands in this suit, did you not?

A. I did not.

Q. It was the business of your Oil Land Classification Board to classify oil lands, was it not?

A. It may have been, but it did not.

Q. It did not. Then you mean to say that Mr. Arnold is mistaken in the bulletin which was issued as an official document by the Geological Survey, when he says that that board did classify those lands, including the lands in this suit, as oil lands, during the time when you were a member of that board?

Mr. Lewers—Show where the board did classify it. **[2262]**

A. When I say I did not, I have information to the contrary; I did not.

Q. By Mr. Mills—Since you left the government employ your sympathies and feelings have undergone some transformation in respect to the issues in this suit, have they not?

A. Not in the least.

Q. You feel yourself somewhat embarrassed now, do you not, Mr. Taff, by finding that in 1909 you classified the very lands which you now condemn as oil lands and recommended that the President of the United States withdraw them from exploration and discovery as oil lands?

Mr. Lewers—Mr. Mills, I object to that question. I don't think it is a fair question to assume that the witness has testified to something that he has testified exactly to the contrary. He has testified re-

peatedly that he did not classify it, and the board didn't classify it, to his knowledge, and that he has information to the contrary, and in fairness to the witness, it strikes me that your question ought not to assume that double form, assuming something contrary to the facts.

A. I am not embarrassed in the least in respect to the Geological Survey or its members, or in respect to the members of the Southern Pacific Company in connection with this suit, or the classification of oil lands. I realize that I have sufficient information that every member of the Geological Survey when I left it were particularly good friends of mine and that they are so yet.

Q. By Mr. Mills—You have realized that?

A. Yes, and if I have any enemies in connection with the Southern Pacific Company, I do not realize that.

Q. You did not include in the premise on which that statement is based the possibility that your evidence in this case may be read with considerable interest by your friends, whom you classify as your friends, in the Geological Survey? **[2263]**

A. It may be, and they will recognize the truth of it.

Q. Now, you mean to tell us now on the record that the classification which was made in 1909 of these lands by your board preparatory to the order of withdrawal of September 27, 1909, could be made without your knowledge?

A. Yes; I have information, as I stated, that it was not made by the board as a board, in body.

Q. Don't you know, Mr. Taff, and aren't you fair enough now to say, as a geologist and scientific man, that that classification was made by that board preparatory to the promulgation of the order of withdrawal, after repeated conferences with you, between you and Mr. Veatch and Mr. Arnold in detail as to every specific description that is contained in that classification?

A. I think my memory is fairly clear. I have no memory, no remembrance, that the board as a body considered these lands in respect to their classification, as oil lands.

Q. Now, when you entered the employ of the defendant Southern Pacific Company, what was the nature of the employment laid out for you to follow by Mr. Dumble, or by your employer?

A. I was informed by Mr. Dumble that my work would be particularly in California and the Pacific Coast states.

Q. What lands were you to examine?

A. Any of the lands that were specified to me to be examined.

Q. Well, what kinds of lands, lands which were granted lands to the Southern Pacific Railroad Company, or what lands?

A. Any lands.

Q. Well, did it include lands granted to the Southern Pacific Railroad Company by grant of July 27, 1866?

A. It evidently did, since we took it up, but I was not particularly informed beforehand.

Q. And you spent most of your time upon that class of lands, **[2264]** did you not?

A. Yes, most of the time of the employees of the geological department, including myself, was devoted to grant lands.

Q. And those lands fall within the indemnity limitation on the west side of the main line road running from a point near Bakersfield north to a point opposite Coalinga or thereabouts?

A. I think so.

Q. Now, do you know it to be a fact that the Southern Pacific Company never had a land grant from the United States?

A. I don't know anything about it.

Q. Well, did you ever ascertain that fact?

A. No.

Q. What is that?

A. No, I did not.

Q. Did it occur to you to be of any interest to know why you were examining lands which inured to the Southern Pacific Railroad Company when you were employed by the Southern Pacific Company?

A. Not particularly.

Q. You regarded it as a sort of a family matter, didn't you?

A. I regarded it as essential and necessary to examine any lands that were specified to be examined, whether grant lands, company lands or other lands.

Q. It was not yours to question why or to make reply, but to go on and examine any lands that Dumble told you?

A. That I was authorized to examine, yes; no question of that.

Q. Now, did you, in your peregrinations about the West Side field, have occasion to examine any lands which are held or supposed to be held under lease from the Southern Pacific Railroad Company by the Kern Trading and Oil Company?

A. Yes, I think so. **[2265]**

Q. And did you have occasion to examine lands which were being operated on which were in contemplation, so to be operated, by the Associated Oil Company?

A. Not particularly.

Q. Well, you say "not particularly;" did you examine any lands for the Associated Oil Company, or on its behalf?

A. Not at all.

Q. Did you examine any lands in the interest of the Associated Oil Company at any time?

A. Not at all.

Q. Under the directions of Mr. Dumble?

A. I did not.

Q. You did not?

A. Not any Associated oil lands.

Q. What is that?

A. Not as Associated oil lands.

Q. Well, lands they were operating, is what I am talking about.

A. That included Associated lands and all other oil lands, the same.

Q. And you found full cooperation, did you not, with the officers of the Associated Oil Company in your examination of lands which they were operating?

A. Not any more than other companies.

Q. Not any more than what?

A. Than other companies.

Q. Not any more than the Kern Trading and Oil Company, for example?

A. No, not as much.

Q. Not as much. You had the right to go upon the Kern Trading and Oil Company lands at any time, didn't you?

A. Or any other lands, yes sir. **[2266]**

Q. Yes. Now, who directed you to work on the Kern Trading and Oil Company lands, so-called, and the Associated oil lands, Associated Oil Company's lands, which you examined?

A. No one in particular, as Associated oil lands or Kern Trading and Oil Company lands.

Q. Well, who directed you to go upon those lands at all and examine them?

A. I was directed by Mr. Dumble to go upon all of the oil lands in the oil fields in the west side of the San Joaquin Valley.

Q. When you entered the employ of the Southern Pacific Company, Dumble was an officer of the Kern Trading and Oil Company, was he not, and a director?

A. No.

Q. Don't you know that he was vice-president of the Kern Trading and Oil Company?

A. No.

Q. Among his other interests?

A. No.

Q. Did you know that he held any official position either as a director or officer of the Eight Oil Company?

A. No, I did not.

Q. Did you do any work for the Eight Oil Company at the direction of Mr. Dumble?

A. I did not.

Q. Did you do any work for the Buena Vista Land and Development Company at the direction of Mr. Dumble?

A. I did not.

Q. Who directed you to go out and examine the Elk Hills in 1912, October and December, and January, 1913?

A. No one.

Q. You went out on your own initiative?

A. I did. **[2267]**

Q. Did you expect at that time that you were —the copious notes that you took and which you referred to would be used by you as a witness in this case, on the stand?

A. Was I informed that they would be used?

Q. Did you expect, I say, at the time you made that examination?

A. I expected that possibly they might be. I had no definite information that they would be.

Q. Well, your reason for examining it was not because anybody told you, but because of your own keen interest in your employer's interests?

A. No.

Q. Is why you spent October and part of December and part of January in the Elk Hills?

A. I presumed that they might be used, as I stated.

Q. You had no directions from anybody to go out there and make those examinations?

A. No.

Q. What is that?

A. No.

Q. And nobody knew about your doing it?

A. Oh, yes, they did.

Q. Well, who knew it; did Dumble know about it?

A. No.

Q. He didn't know you were going out there to make that examination?

A. No.

Q. Did Mr. Lewers or any member of the law staff of the Southern Pacific Company know about it?

A. Mr. Lewers may have known about it, yes sir.

Q. Well, don't you think he did know about it? You say he may have known about it; didn't you

consult with him, as a matter [2268] of fact, before you went out there?

A. I did.

Q. Then why do you say, "He may have known about it?"

A. Well—

Q. Why quibble in any terms like that?

A. It was discussed, but I was not obliged to go, and I might not have gone.

Q. But you did go?

A. I went of my own volition.

Q. And you discussed the whole matter with Mr. Lewers before you went?

A. Oh, to a certain extent.

Q. Yes. And you knew before you went what you were looking for?

A. I did.

Q. In other words, you had your eyes open to evidence which you might construe in favor of the contention of the railroad company, and blinded your eyes to any evidences which might detract or minimize that contention?

A. I did not.

Q. Did you ever make examinations of Sections 18, 35 and 36 in Township 29-21 East?

A. Yes, I made certain examinations on 29-21. Will you name the sections again?

Q. 18, 35 and 36.

A. I don't think I have been on Sections 35 and 36. I have been across Section 18.

Q. Now, in Township 30-21. Did you find that?

A. (Examining map) Yes.

Q. Did you examine Section 33 on 42?

A. Not 42.

Q. 32, I mean. **[2269]**

A. No, I don't think I have been on Sections 33 and 32.

Q. Have you been on Section 12 in the same township?

A. Yes.

Q. Have you been on Section—have you examined Section 5 of 30-22?

A. Yes, I have been across the section, 5.

Q. Well, have you examined it thoroughly?

A. Not thoroughly.

Q. Have you examined Section 8, in the same township?

A. Yes, I have been through Section 8.

Q. Have you examnied that thoroughly?

A. Fairly thoroughly, I think.

Q. Have you examined 17 in that township thoroughly?

A. Not particularly thoroughly.

Q. 18?

A. Yes, I examined Section 18.

Q. Thoroughly?

A. Fairly thoroughly.

Q. 20?

A. Yes.

Q. 28?

A. Yes.

Q. 29?

A. Well, fairly so, yes.

Q. 34?

A. Yes.

Q. 35?

A. I have been through 35 but never examined it with particular care.

Q. 15, same township?

A. Yes.

Q. 19? **[2270]**

A. Yes.

Q. 27?

A. I have not examined 19 with particular care.

Q. 27?

A. Yes.

Q. You say you have examined that?

A. Yes.

Q. 17, Section 17 of 32-23?

A. No, I have been in Section 17, 30-23.

Q. Section 25, same township, southwest quarter?

A. Yes, I have been there.

Q. Did you examine the southwest quarter of 25 carefully?

A. No.

Q. 31-21, Section 14; have you examined that?

A. In part. I have been through Section 14.

Q. Not carefully?

A. Not very thoroughly.

Q. 24, same township?

A. No.

Q. 31-22?

A. Same township?

Q. Same township, 31-22, Section 22.

A. No, I have not examined that particularly.

Q. 34, same township, or 34 in the township to the north of that, 30-22?

A. Yes.

Q. You have examined that?

A. I have.

Q. Section 19 of 31-22?

A. Yes.

Q. 31-24? Have you got that?

A. Yes. **[2271]**

Q. Section 1?

A. I have not examined Section 1.

Q. Section 9, same township?

A. No.

Q. Section 2?

A. No.

Q. 32-22?

A. 32-22.

Q. Section 1?

A. Yes; part of it.

Q. What part of it?

A. The northeastern.

Q. What?

A. The northeastern part.

Q. Section 2?

A. No.

Q. 32-23. Section 6?

A. Yes.

Q. How carefully have you examined Section 6, and at whose instance did you examine it?

A. At my own instance.

Q. How carefully did you examine it? What part of the section?

A. Western part.

Q. 21, same township?

A. No; I have not examined Section 21.

Q. 22?

A. No.

Q. 26?

A. Yes; I have been through Section 26. I didn't examine it in particular.

Q. 32-24, Section 11? **[2272]**

A. Yes.

Whereupon the further taking of testimony herein was adjourned until 1:30 o'clock P. M., at the same place.

On Tuesday, March 11, 1913, at 1:30 o'clock, P. M., the further taking of testimony herein was resumed pursuant to the adjournment: Present: Willis N. Mills, Special Assistant Attorney-General, appearing on behalf of the plaintiff; and Charles R. Lewers, Esq., appearing on behalf of the defendants.

J. A. TAFF,

recalled, CROSS EXAMINATION resumed

By Mr. Mills:

Q. Do you recognize the work of J. P. Lesley, entitled "The Manual of Coal and its Topography," as a standard work on that subject?

A. Not necessarily. It probably was at the time it was published.

Q. I find this statement in Mr. Lesley's work. I will ask you whether you agree with it: "Coal is never found issuing in veins from the interior of the planet, like gold and silver; nor filling irregular cross crevices in limestone, like lead; nor spread abroad in lakes of hardened lava, like basalt and greenstone; nor embedded in clay, crystallizing upward from the walls and bottoms of deep wide fissures, as bunches of grapes, or in bundles of pipes, like the hematite ores; nor lying exposed upon the surface in blocks, like native copper, or meteoric iron; but always as a thin sheet or stratum, extending through the hills as far as the hills extend, and inclosed between similar sheets of other kinds of rock." Do you concur in that statement? [2273]

A. I do not, in the main. In part, I would; in others I would not.

Q. Well, in what part do you concur?

A. I concur in the statements that coal does not occur in the earth as veins, as sheets of lava and certain other kinds of rock that he makes mention of there.

Q. Well, do you concur in the statement that it occurs as a thin sheet or stratum extending through the hills as far as the hills extend, and enclosed between similar sheets of other kinds of rock?

A. I do not. In respect to the extent of the coal beds through the hills as far as the eye could see, except that the particular coal bed in question is

found by observation to extend through certain hills as far as the eye can see, that rule will not apply.

Q. See if you concur in this: "Nothing is more surprising than the vast expanse of even the thinnest of these sheets of coal. The original deposit of carbonaceous matter seems to have been in every instance, almost co-extensive with the lake or sea in which it was laid down." Do you concur, in the main, in that?

A. I concur in the statement that it is co-existent with that lake or sea in which it was laid down, because it has not been removed from the sea in which it was laid down.

Q. Do you concur in this statement: "Each sheet of coal extends for itself and by itself as far as the mountain does in which it lies, never branching nor forking nor rolling together, but passing through the mountain from side to side, from end to end, or cleaving down through it from summit to base, from end to end, and commonly in this latter case passing under an adjoining valley and reascending through the length and breadth of a mountain on the other side." Have you ever found instances of that kind in your examination of coal lands? **[2274]**

A. It depends on the size and extent of the mountains.

Q. Well, have you found any of that kind in your examination of coal lands?

A. I think there are instances, yes. But that would be rather an exception.

Q. Do you concur in this statement: "The prac-

tical character of a coal bed is soon determined by a coal bed is soon determined by a few good openings upon its outcrop."

A. In the vicinity of those outcrops, yes. Not far away, necessarily.

Q. Do you concur in this statement: "Under ordinary circumstances and for all practical purposes the quality, size and mining condition of a coal bed can be explored as well in two or three days by a gangway ten or fifteen feet long, as by workings through it for a month or a year."

A. I don't think it is so.

Q. How is that?

A. Not so, as a rule.

Q. It is so in some instances, is it?

A. Local occurrences; yes.

Q. Do you also concur in this: "The only proper method is to open the same bed at numerous places along its outcrop, and from a comparison of these crop openings the actual average character of the bed within can be confidently predicted, and its contents calculated."

A. It can near those outcrops; yes.

Q. Do you concur also in this statement: "A coal bed may indeed belie itself at one point or at two where openings are made, but not a dozen. Veins of lead, of copper, of iron alternately decrease and diminish in size, rapidly and unexpectedly. The miner never knows until he strikes the vein what it will be worth, nor how soon the pocket which he has entered may close [2275] up between bare walls

Not so with coal. It varies little and seldom disappoints. What it is at one point it is likely to be much the same at another."

A. That may be with certain particular coal beds after you determine its character.

Q. Do you also concur in this: "Even intervals of hundreds of miles in which it has undergone an infinite number of slight and perhaps some striking variations, will sometimes present it at the most distant places with strangely identical features, showing how vast and regular has been the law of its deposit."

A. That won't hold good now.

Q. What is that?

A. That won't hold good in the present knowledge of the occurrence of coal.

Q. Well, it has held good in your own examniations, has it not, Mr. Taff?

A. To a certain limited extent.

Q. Do you also concur in this statement: "The great Pittsburg bed is a remarkable instance of this law, covering as it does tens of thousands of square miles, and scarcely varying from a thickness of eight feet, showing itself always a double bed, and yielding everywhere both a superior quality and quantity of coal."?

A. The great Pittsburg bed is quite an extensive coal bed, as I have determined by my examinations in parts of the Appalachian field.

Q. And it is persistent and continuous, to a great extent, over a vast area?

A. I can't say that.

Q. In its deposits?

A. I can't say that. Neither can anyone else.

[2276]

Q. Well, isn't that true?

A. The Pittsburg coal is recognized, fortunately, by its association with the rocks in which it is contained, and the Pittsburg vein is recognized over a wide area at varous points because of these relations, because of the character of the formation in which it occurs, and the fossils.

Q. And because of the persistance of the stratigraphic beds in which it is laid down?

A. Over very large areas in that region of Pennsylvania and Pittsburg coal has been removed. You find it in patches here and there. You find it by relation to the formations in which it occurs, and by the fossils in that formation; but over very extensive areas it has been excluded by erosions. In mountain areas where they do not recognize it nothing is said about it.

Q. But for that erosion those beds would have been persistent without interruption, would they not?

A. I can't say that.

Q. Is not that your reason for saying that there is any change at all in the persistence and continuity of those beds—is because of the erosion?

A. The Pittsburg bed changes in thickness very rapidly in places. For instance, where I surveyed

it in Maryland and West Virginia it ranged in thickness from twenty feet down to a few feet.

Q. I am not talking about the thickness.

A. I understand.

Q. I am talking about the persistence of the beds in which the coal is found.

A. That shows the persistence.

Q. The thickness shows persistence, does it?

A. Certainly.

Q. If you have a bed which covers ten thousand square **[2277]** miles, that is twenty feet at one side and eight feet at the other, it is persistent, isn't it?

A. That is not so.

Q. What is not so?

A. Through ten thousand square miles. They are locally.

Q. Is it not a fact that the Pittsburg bed covers tens of thousands of square miles in continuity and in persistence of the stratigraphic beds in which it is laid down?

Mr. Lewers—Had you finished your former answer?

A. I can't answer that question in the affirmative. I have no—

Q. By Mr. Mills—You know that is so, do you not?

Mr. Lewers—You say you hadn't finished your answer?

The Witness—I hadn't finished the answer to the former question.

Mr. Lewers—You may proceed and finish it.

A. (Continuing) And, that is, taking the Pittsburg, for instance, that varies in thickness from say twenty feet down to a few feet. Within a certain limited distance it would easily—you would expect it to vary from, say, six feet, where it is in many places, to practically nothing, where it has been recognized in many places. That is, the Pittsburg vein is not recognized as being a workable vein everywhere and it occurs locally; that is, it lies essentially in the upper parts of the lands—particularly in southern Pennsylvania and western Maryland—large parts of West Virginia, for instance, where it has been very largely removed, and in many places it is not recognized, showing that it is not necessarily persistent over the territory in which it has been recognized to occur.

Q. Well, now, eliminating the question of the thickness of the beds, and assuming that it is the same thickness at all points except where it has been eroded, whether of workable **[2278]** character or not, it is found, is it not, wherever it occurs, and where you have examined it, between the same stratigraphic rocks?

A. No.

Q. The same bed is between different stratigraphic rocks?

A. So far as I know, between the same stratigraphic rocks; but I have not found it to be present.

Q. And it shows it was laid down in uniformity in this area?

A. The Pittsburg coal is recognized as one of the

most persistent beds. But, in connection with it, there are other beds which are extremely local.

Q. Now, in that connection, the result of that observation which you have just made would lead you to the conclusion that when originally laid down it covered a vast area and was laid down uniformly?

A. Not uniformly.

Q. Well, it was laid down with a great or high degree of persistency and continuity?

A. I don't know that. I know it is recognized over a wide territory.

Q. Yes, and is recognized between the same recognized beds?

A. Presmued to be recognized correctly, although that does not necessarily prove it to be true.

Q. Do you agree with this statement: "Upon faith of such investigations prudent men often expend large sums of money in the purchase of lands and development of the property."

A. They do. But they usually prospect those lands before.

Q. Do you agree with this statement: "Often the depth or thickness of the overlying strata is such to prohibit economical exploration from above, and the distance of many tracts from outcrops, or openings made at convenient and accessible points, is too great to justify penetration by drifts or slopes for purposes [2279] of preliminary investigation and ascertainment alone. In the nature of things, therefore, reliance must frequently be had upon such evi-

dences as may become the guide of the geologist or coal expert."

A. That is right.

Q. "Mere outcrops, disintegrated by the action of the elements and broken and mixed with debris as they often are, seldom bear witness in themselves of the quality and quantity of the coal beds behind them. Unless in such cases, therefore, they are sufficiently exploited no determination of the coal character of the overlying lands can be reached by the land department. Nor can opinions, unexplained or expressed by unqualified witnesses, suffice upon any point." Now, that statement is not from this expert, but is a statement made by the Secretary of the Interior upon a letter which you, Mr. Taff, in the year 1905, wrote to the director of the Geological Survey, upon the classification of coal lands, stating how they could be classified by geological evidence. Do you recall that letter?

A. No; I do not.

Q. Do you recall writing such a letter?

A. I think I did.

Q. It was your opinion at that time, was it not, Mr. Taff, that all that was required to classify lands which were coal lands was geological evidence and not the use of the diamond drill?

A. That would depend upon circumstances.

Q. Well, I am asking you if it was not your opinion at the time you wrote the letter—

A. To classify the lands in the immediate vicinity of the known occurrence.

Q. I am asking you whether that was your opinion at the time you wrote that letter. State yes or no.

A. With qualifications; yes. [2280]

Q. You deemed it important at that time, for the protection of the public domain, that certain coal deposits which you knew to exist, from geological inference, to be classified as coal, without further exploration than your own examination as a geologist? Is that not so?

A. Correct.

Q. And upon that letter of yours to the Geological Survey, at the time you were working for the government and not the Southern Pacific Company, the Secretary of the Interior rendered a decision which is found at 34 Land Decisions, in part at page 194 to 203, and on which advice, Mr. Taff, he made this statement, did he not, "Upon faith of such investigations prudent men often expend large sums of money in the purchase of lands and development of the property. Often the depth or thickness of the overlying strata is such as to prohibit economical exploration from above, and the distance of many tracts from outcrops, or openings made at convenient and accessible points, is too great to justify penetration by drifts or slopes for purposes of preliminary investigation and ascertainment alone. In the nature of things, therefore, reliance must frequently be had upon such evidences as may become the guide of the geologist or coal expert." Is not that true?

A. Correct.

Q. The Secretary also, based upon statements made in your letter to him, in his decision—

Mr. Lewers—Does the decision say so, or are you testifying into the record?

Q. By Mr. Mills—(Continuing) In which you concurred, Mr. Taff, made this statement, did he not: "The particular subject of the present consideration is coal deposits, and the concern is of the data which may be relied upon to determine their presence in any case. The characteristics peculiar to them, therefore, must be taken into account and kept steadily in view. **[2281]** These bedded deposits, generally of wide extent and of regular formation, the result of slow accumulation at the earth's surface, following laws of occurrence common to stratified formations and consequently conforming to the lay of adjacent strata, differ radically from most other useful mineral deposits, particularly the metalliferous ores, which rarely occur in sedimentary beds, but generally in veins and pockets, and replacement, impregnation, and contact deposits, and which, from the nature of their origin, present such abrupt variations in form and character as to preclude safe prediction of their underground extension or calculation of their quantity or quality in advance of exploitation. Even where the coal beds were deposited upon an uneven floor, and vary rapidly from place to place, the geologist can easily ascertain the extent of variability and from the conditions of deposit the degree of persistency of the coal beds; and,

readily determining in most fields the geologic structure, can further determine the area of workable coal and closely approximate the depth at which an outcropping coal bed will be found in any part of the field. It is well recognized that constancy or variability at the outcrops or other exposures are evidences of the same conditions underground." Was not that statement based upon your letter, and upon things that you said in that letter, Mr. Taff?

A. It was, and dependent upon—

Q. And it is true, is it not, as a geological statement—

A. Depending on particular circumstances.

Q. Yes; but it is true as a geological statement generally?

A. With regard to the particular circumstances to which that letter had reference.

Q. And you, at that time, in preparing the data upon which the Secretary made that decision, were of the opinion that coal beds, their persistence, their position and their workable value, could be determined alone by the exercise of geological deduction [2282] without the use of a diamond drill and without the use of making trenches?

A. No.

Q. By Mr. Mills—Didn't you so state to the Secretary in that letter?

A. No, I didn't so state to the Secretary in that letter.

Q. What did you say?

Mr. Lewers—Well, if you have got the letter there, Mr. Mills, kindly produce it.

Mr. Mills—Of course I have got the letter.

Mr. Lewers—You can see that letter, Mr. Taff, if you so desire.

Q. By Mr. Mills—What did you say, Mr. Taff?

A. That letter had reference to the occurrence of coal in a particular field, occurring under peculiar conditions where the coal beds themselves were so situated and their outcrops were practically continuous.

Q. Practically what?

A. Practically continuous, outcrop conditions. Moreover, there had been very extensive prospecting opening up of those beds where they did not protrude out at the surface, there had been no drilling, diamond drilling, done. The topography and the situation of the coal beds was such that the condition was sufficient for the determination of the character of the coal. That was not intended to be a universal application.

Q. What area was it that you regarded that you could—that you then had in mind specifically correctly to determine the extent of the underlying coal beds without the use of a diamond drill, and by dependence upon your geological examination?

A. What locality?

Q. What area; what was the extent of the area?

A. The area is south central Utah, about a hundred to a [2283] hundred and fifty miles southeast of Salt Lake City.

Q. Yes, and what is the extent?

A. The extent of the outcrop?

Q. I am asking you the extent of the area.

A. Of the area?

Q. Yes sir.

A. The lateral extent is in the neighborhood of something over a hundred miles.

Q. Yes. Now, what is the other extent?

A. The other extent was—it varied from, say, from a few miles to as far as six or eight miles.

Q. To as far as six or eight miles?

A. Yes sir.

Q. Now, was eight miles the outside limit of that field that you have referred to and which you determined the underlying coal beds by a geological inference?

A. I am speaking simply from memory. I think it is proper that I should explain the beds. The coal formation to which I have referred occurs along and in what is known as the Book Cliffs, the Wasatch blow-out, in Utah. These cliffs in this blow-out escarpment is about a thousand to twelve hundred feet high. The coal formation crops out in the upper portion of these cliffs. The cliffs are remarkable for their barrenness, and clean exposures of the rocks, and sandstones and shales, and they stand out in rugged cliffs. These cliffs are intersected by innumerable canyons between gulches extending from the front or lowland into the tableland, so that the coal outcrops extend along this main cliff around the spurs and points up the canyons to where they pass

under cover around again and up and in and out through the canyons throughout this extent. So that you have the coal, you have a width there of a serrated width along the length in some cases several miles where the coals were exposed around the [2284] points of the cliffs, so that you had the great advantage of having the coal extended on both sides of the areas of it extended into the cliffs.

Q. Now, what is the widest area from the outcrop along that lateral showing in that coal field?

A. I don't remember. After careful discussion with the men engaged at that time in the coal service of the Geological Survey, as I remember it, it was concluded that in a condition of this kind, at least I remember I concluded, and it was concurred in, as far as I remember, that under such conditions if you have the coals exposed in the canyons for a distance of two or three miles from the points, and continuous throughout this area, mind you, there was several coal beds.

Q. Well, go on.

A. A workable thickness that you would have under those peculiar circumstances would be at liberty to classify the lands to the distance of at least something like, as I remember it, it was stated that six miles from the outer points to as far back as it would be were we to classify the coal lands.

Q. Now, don't you recommend the classification of such coal lands at a greater limit from the outcrop than eight miles?

A. Not that I remember.

Q. Are you positive of that?

A. No, I am not.

Q. Wouldn't you be surprised to find it extended thirteen miles?

A. It may be peculiar conditions, but I don't recall just now.

Q. So that while you were working for the government as a geologist, you were able to classify upon geological inference alone, and without the use of a diamond drill, lands which you determined to be underlain with coal, a distance of eight miles **[2285]** from the outcrop, at least, and while you are working for the Southern Pacific Company you are willing to testify under oath that you cannot classify coal lands now more than a few miles from the outcrop, three or four at the most; is that correct?

A. That would depend on circumstances.

Q. Well, that is what you testified to, isn't it?

A. Yes, it depends on circumstances. You should permit me to say that the evidence in the case referred to was not by geological inference, but by geological evidence, and that the coal-bearing lands, workable coals, were known to be continuous as a group of beds through this distance continuously as shown by evidence, to a distance in the neighborhood of a hundred miles.

Q. What was your geological evidence excepting the outcrops?

A. Exposure of the beds.

Q. That is outcrops, isn't it?

A. Yes sir.

Q. Those are known as oil seepages, are they not?

A. Oil seepages, yes sir.

Q. Now, suppose you had a hundred oil seepages along a distance of thirty miles, would you consider that fair evidence?

A. On the bed?

Q. Yes sir, on the same bed.

A. And near together?

Q. Yes sir.

A. Very good evidence.

Q. Good evidence that there were deposits of petroleum somewhere under that?

A. Near at hand, yes.

Q. And for a considerable distance laterally?

A. Depends on the circumstances. You would have to know your geology before you could pass judgment. **[2286]**

Q. Are you a chemist?

A. No.

Q. Natural gas is closely associated with petroleum, is it not; usually it indicates the presence of oil?

A. Sometimes it does, yes. It might not be, necessarily.

Q. Well, as a rule it does, does it not?

A. Well, I suspect in a majority of cases.

Q. Natural gas, in your opinion, has the same origin as petroleum, does it?

A. In part, yes.

Q. Aren't natural gas, petroleum, bitumen and

asphaltum essentially compounds of carbon and hydrogen, or more precisely mixtures of such compounds?

A. Yes.

Q. Now, in making a proximate analysis of a petroleum, of bitumen, wouldn't a competent chemist separate those compounds, one from the other, in order to get their identifiaction as compounds of definite constituents?

A. Do that in order to determine the composition, but not necessarily, not a definite composition.

Q. They have been so determined, have they not, the component parts of petroleum?

A. Yes, a group of parts have been determined. Petroleum could be analyzed to its elements.

Q. Petroleum, then, is a mixture of compounds, a definite chemical composition?

A. No.

Q. It is not?

A. No.

Q. What is methane; what is the formula for methane?

A. I don't remember now.

Q. Do you know what the mathematical generalized formula is [2287] for determining the relation of the constituent parts that make up the compounds that form petroleum?

A. No, I am not a chemist.

Q. Then, in your testimony here with reference to your examination chemically, so-called examina-

tion of the gas seepage on Section 32 of 30-24, you did not pretent to any knowledge as a chemist?

A. No, not as a trained chemist, no.

Q. Now, methane is a hydrocarbon, is it not?

A. I think so, yes.

Q. What is it, a gas?

A. Yes, so recognized.

Q. And methane forms the chief characteristic of natural gas, is it not?

A. That is my understanding, yes sir.

Q. It runs from about somewhere in the neighborhood of seventy per cent to ninety-seven per cent of natural gas, that is, that much of methane?

A. I don't recall from memory. I could determine that from an examination.

Q. Well, is that about right, you think?

A. Probably, as you have the reference. I have not.

Q. What is ethane?

A. I can't tell.

Q. What is that?

A. I don't know.

Q. Did you ever hear of it?

A. Probably I have. I think it is—

Q. What is propane?

A. I am not familiar; I can't tell you.

Q. Well, is it a gas accompanying petroleum?

A. I don't recall now. **[2288]**

Q. Is ethane gas a gas accompanying petroleum?

A. I don't recall now positively.

Q. What is butane?

A. The same answer.

Q. Now, can you give us a series of component parts of definite chemical composition which make up the liquids of petroleum?

A. I cannot. I can by reference to the proper authorities. I am not a chemist, a trained chemist.

Q. Well, you know from what superficial knowledge you may have of the study of chemistry, do you not, that every component part of petroleum my be identified according to its definite chemical composition?

A. It may be identified by its definite chamical composition, but that is not the same composition as another petroleum; that is recognized.

Q. I am speaking of any petroleum, sir, either of paraffine base or asphaltum base.

A. Any single petroleum, its composition can be determined, but is a well known fact that one petroleum is not the same as another petroleum that may occur even in the same locality.

Q. I didn't ask you that at all. I am asking any petroleum, and I generalized my statement for that purpose, Mr. Taff.

A. Yes, any single petroleum can be, yes sir.

Q. Now, after the gases have been eliminated from the compounds that make up the liquid of that petroleum, it can be identified according to its definite chemical composition; isn't that true?

A. I am not sure about that.

Q. Well, are you sure that it is not true?

A. As I said, any petroleum can be separated into its component parts. [2289]

Q. Yes, and each one of those component parts has a definite chemical composition?

A. Coming from a single well?

Q. Yes sir.

A. Yes.

Q. That is true, isn't it?

A. It is. And the next day petroleum coming from the same well may have a different composition.

Q. That is, a different combination?

A. Different composition, yes sir.

Q. By "composition", you mean a chemical difference of the compounds that compose it; is that what you mean?

A. The classification of the first one would not fit the second one.

Q. But even on the second day each one of those component parts may be resolved and identified and reduced to a definite composition?

A. Yes, take it in that one instance, yes sir.

Q. So that then petroleum is a composition or mixture of component parts, each one of which may be identified and resolved into its definite chemical composition?

A. Yes.

Q. That is your understanding of it?

A. Yes, each part of any petroleum can be separated into its parts. Any substance can be analyzed into its parts.

Q. The statement that petroleum is of organic origin is an assumption chemically, is it not?

A. No, not necessarily.

Q. Not necessarily. What do you mean by that, that it might be but is not necessarily?

A. Well, under certain conditions, to the minds of some men where you have not information as to the source of it, it **[2290]** may be an assumption. In the majority of cases it is a geological certainty.

Q. Do you know of anybody who actually knows? Don't you know that there have been a great many theories of the origin of petroleum, none of which have been exploded and disproven?

A. Not very well.

Q. Petroleum is a hydrocarbon, is it not?

A. Yes.

Q. Yes. Did you ever hear of a hydrocarbon being found in a meteorite, in which the possibility of the organic origin is excluded?

A. I think I have heard that petroleum had been found in a meteorite, but that does not necessarily assume that the petroleum came in the meteorite.

Q. Well, what I am talking about is whether it excludes the postulate that the eptroleum found there was of organic origin.

A. No.

Q. You think it would not?

A. No.

Q. Oh, you disagree, then, with those who maintain that it excludes the possibility of organic origin?

Q. Well, you may assume that if you wish.

Q. Now, as a matter of fact, the origin of petroleum as of organic origin is an assumption by those geologists who attach themselves to that theory?

A. No, the information is too definite to call it an assumption.

Q. Did you ever hear of the carbide theory of the origin of petroleum of Dr. Mendeleef?

A. I have.

Q. What was that theory?

A. I have heard of the theory. [2291]

Q. What is that?

A. I have heard of the theory.

Q. That theory, like all the others, was based upon assumption, wasn't it?

A. I should say strictly on an assumption. Not like all other theories, but of some others.

Q. What was the assumption in that theory?

A. I don't remember the details of it now in full, but it was that petroleum, a certain petroleum, was of inorganic origin, that is, it was produced within the interior of the earth, an association of certain heat and metals and iron and carbonate compounds, the details of which I don't remember, because it has been some time since I examined it, and I have never had occasion to place any confidence in it.

Q. Well, in brief, it was a theory that iron carbides existed in the earth and percolating waters and the iron carbides formed hydrocarbons; is that correct?

A. I think so.

Q. Did you ever hear the theory of N. V. Sockoloof?

A. Not by name.

Q. Of the cosmic origin of bitumens? You never heard of that?

A. I don't remember the details of it now. I may have seen it.

Q. That was somewhat recent; 1890, about the time you started in studying geology, wasn't it; 1889?

A. In was in 1888.

Q. 1888. Well, we won't quibble over one year. Now, in support of that conception, Mr. Sockoloof stated the finding of hydrocarbons in meteorites, did he not? Did you ever hear the theory of Mr. Ross, O. C. D. Ross, that petroleum originated from the action of sulphurific gases upon limestone? **[2292]**

A. I have heard such a theory, but I don't remember that name.

Q. Now, all of those theories, together with the theory that petroleum is of organic origin, depend upon an assumption, do they not? They are all theories, and the one which is most accepted is that petroleum has its origin in diatoms?

A. Yes, and other organic matter. The ones you have named I think would be stricyly assumptions.

Q. Now, Mr. Taff, that seepage in Section 32 of 30-24 to which you have referred at some length is, in your opinion, a gas seepage, I take it, from your direct testimony?

A. It is not.

Q. You think it is not a gas seepage?

A. I am sure it is not.

Q. What is it; what kind of a seepage is it?

A. I didn't observe any seepage at all.

Q. But you are sure it is not a gas seepage?

A. I am sure it is not.

Q. What?

A. Yes.

Q. Do you know a gentleman who has appeared on the stand here by the name of Frank M. Anderson, who confesses to have dabbled some in chemistry and its allied subjects?

A. Yes, I know Mr. Anderson.

Q. He is an associate of yours, is he?

A. Yes, he was.

Q. Of the Southern Pacific Company?

A. He was.

Q. Well, you have conferred with him in this case, haven't you?

A. No.

Q. You never have talked with him about what he was to [2293] testify in this case, or discussed it at all?

A. Not a word.

Q. Never a word?

A. Not a one.

Q. You are the gentleman that was present up there in the hearings at San Francisco during the time that Mr. Ochsner, another associate of Mr. An-

derson, was on the stand, and while other people were testifying?

A. Yes, a few.

Q. How many times did you attend the hearings up there?

A. Three or four times, as I remember.

Q. Didn't you there discuss with Mr. Anderson while he was attending those hearings, the geological theory which you would adopt in this case?

A. Mr. Anderson didn't attend a single hearing there when I was present.

Q. Well, now, that Mr. Anderson to whom I have referred also made a visit or two or three to this oil seepage on Section 32 of 30-24, and by the way, that is the seepage around which it appears by evidence in this case the former oil expert of the Southern Pacific Company by the name of Treadwell located lands for their petroleum values because of that oil seepage. Mr. Anderson on his attention being called to that says: "A—I didn't see this in 1911. Q.—When did you see it? A—When did I see this spot that was called the gas blow-out? Q—Yes. A—In Section 32? Q—Of 30-24. A—I saw that in November, 1912. Q—By Mr. Lewers—What is that, in your opinion? A—A gas seepage. Q—Describe what kind of a gas seepage. A—It is a gas seepage or, perhaps more than one gas seepage in the slope of the hill and from the sides of the canyon at this point in Section 32. The outcrop as I saw it consisted of brownish stain or a series of brownish stains on the slope of the hill, and

by digging [2294] into it we found some sand stained brown, containing crystals of sulphur. It had a peculiar fetid odor. The material was dug out with a hand pick and it was warm and showed more than the atmospheric temperature and showed a little moisture." And so forth. Now, you disagree utterly with the distinguished gentleman who uttered those prophetic words in the matter of its being a gas seepage?

Mr. Lewers—I think in all fairness you should call Mr. Taff's attention to the fact that he said it was not a petroleum gas seepage but directly from organic matter.

Mr. Mills—Mr. Lewers, I object to your interjecting any remarks here to assist this witness. We are getting along all right.

Mr. Lewers—I know you are getting along all right, but you have misrepresented Mr. Anderson's testimony, and I object on that ground.

Mr. Mills—I am reading it exactly. The court will know when he reads it.

Q. Now, Mr. Taff, laying aside and out of view for the moment these angry interruptions by counsel, I will again ask you if you, on reconsideration, agree or disagree with the distinguished gentleman in his statement that that was a gas seepage?

A. I disagree in regard to his idea as a gas seepage.

Q. Now, you have stated that methane gas is a

hydrocarbon, and which makes up the chief characteristic of natural gas; that is correct, isn't it?

A. Yes sir.

Q. Now, this distinguished gentleman also said that this gas seepage was a gas seepage of methane gas; in other words, it was a gas seepage of—or a gas seepage which was closely associated as you say with petroleum—

Mr. Lewers—Now, I object to the question on the ground **[2295]** it is a misrepresentation of what Mr. Anderson said. He didn't say it was closely associated with petroleum.

Mr. Mills—I didn't say that he did. I said Mr. Taff did.

Mr. Lewers—And Mr. Anderson testified that was Marsh gas.

Mr. Mills—Mr. Anderson testified it was methane gas.

Mr. Lewers—Well, that is marsh gas.

Mr. Mills—Well, of course it may be marsh gas, in your opinion. He testified methane gas. This distinguished gentleman says that methane gas is closely associated with petroleum.

A. Not always, I didn't say that.

Q. Always except in the Elk Hills; you made a reservation about the Elk Hills, did you?

A. I have not seen any signs of hydrocarbon gas in connection with the seepage, I mean.

Q. Well, do you regard Mr. Anderson, a man competent to detect by the avenue of his nostrils or the

avenue of any of senses, a methane gas which has a fetid odor?

A. I think he is mistaken.

Q. You think he is mistaken?

A. Yes sir.

Q. Now, one of you must be right; which one do you think is right and which is wrong?

A. I am right, because I can give you my reasons for it fully.

Q. Well, he gave pretty full reasons.

A. I have not heard them yet.

Q. He was rather full of reasons.

A. I have not heard them yet. I would like to hear them.

Q. Well, now, we have come to the point where one of you is mistaken, grossly so, because you are diametrically opposed. One says this gas seepage is methane gas, while the other man says if it is methane gas it is associated closely with petroleum, but [2296] not in the Elk Hills, and the other one says that it is not a gas seepage.

Mr. Lewers—I object on the ground that counsel seems unable to restrain his desire to make stump speeches in which he deliberately and consciously misstates the evidence given by not only the witness on the stand, but by the other witness in the case.

Q. By Mr. Mills—Does marsh gas always come from a marsh?

A. No.

Q. Never does, does it?

A. It may.

Q. Oh, it may?

A. Possibly, yes.

Q. Well, where does it in the Elk Hills or where do you know of any place where marsh gas comes from a marsh?

A. No, I do not.

Q. You do not. Now, when marsh gas is used as an expression describing or defining a gas, do you mean methane gas?

A. Not necessarily.

Q. Not necessarily?

A. No.

Q. Then Mr. Anderson is again mistaken, although full of reasons, when he says that marsh gas is methane gas, is he not?

A. I can't tell you whether he is mistaken now or not.

Q. Do you know much about it yourself?

A. I am not a chemist, but I know that the residue in the exposure mentioned in Section 32, 30-24 is not a residue from a hydrocarbon in the form of gas or petroleum.

Q. And not being a chemist you concluded that by reason of the denseness of your senses on the slbject?

A. I am not a chemist; never made a test.

Q. That was one of the reasons you came to the conclusion, [2297] because you didn't know much about it; you said you are not a chemist?

A. I am not a trained chemist, no.

Q. Well, you will be pretty well trained if you stay in this suit right along. Did you notice any evidences of sulphur in the sand in that oil seepage on 32?

A. I did not.

Q. Do you say that there is no sulphur there?

A. There may be sulphur present in those sands, or in connection with the outcrop, but there was no evidence of sulphur in the impregnated sands themselves, as far as we were able to examine.

Q. Is sulphur derived from hydrocarbon gas?

A. No, I think not.

Q. Is it present in hydrocarbon gas?

A. Yes, it may be.

Q. Well, it is generally a characteristic, isn't it, the presence of sulphur is generally associated with petroleum, and petroleum gas or natural gas?

A. Most petroleums, many petroleums have a small percentage of sulphur, yes.

Q. Now, when you say petroleum gas, that is when you use the term, Mr. Taff, you mean natural gas, don't you, as distinguished from all other gases that come from the earth?

A. Yes, natural gas.

Q. When you use the words "petroleum gas" you mean natural gas such as is customarily found and burned?

A. Natural gases vary much in composition just the same as any other kind of carbons.

Q. Well, it is a fact, isn't it, that sulphur is close-

ly associated and almost invariably found in connection with natural or petroleum gas and petroleum? **[2298]**

A. It is often found, yes, in small quantities.

Q. Well, it is characteristic of that petroleum gas, and of petroleum; its universal presence is known as a characteristic of those hydrocarbons?

A. I think it is generally present in small quantities.

Q. Now, that outcrop, which has been designated by men who know as an oil seepage, in 32, and extends over quite a distance of ground there in that canyon district some three or four hundred feet?

A. Yes, a few hundred feet; that is, in separate occurrences.

Q. Well, only where it has been interrupted by the erosions of the canyon itself?

A. I dare say it has been cut through, yes; it is surface.

Q. But it would be somewhat continuous, persistent?

A. It has been cut through, because it is a local occurrence, yes.

Q. Now, you made an examination you say by drifting into the side of the hill?

A. Yes.

Q. Did you drift in more than one place?

A. Just one place in the richest exposure.

Q. And how wide was the place you went into; you say it was about eight feet high, I think, twenty feet deep, and how wide was it?

A. Nine feet high.

Q. Nine feet high, yes.

A. It was about—well, from four to six feet. It was not regular, quite.

Q. Now, you can't tell from drifting in at that one place, can you, Mr. Taff, what the condition is, not visible to the naked eye and underneath the surface at any of the other places in that three or four hundred feet where that cropping shows, or [2299] that seepage shows?

A. It is driven in connection with the exposures and their local character would be quite conclusive.

Q. Well, it is conclusive as to that place, we will say.

A. Yes.

Q. Now, you don't know what it is a hundred feet away from there, or how far into the hill it goes, do you?

A. No, but I have good reason to believe.

Q. Well, Iam not asking you what you have reason to believe; I am asking you what you know. You don't know, do you?

A. Not positively, no.

Q. Nor you don't know at any spot except where that drift was sunk into the hill?

A. No.

Q. What is the character of that formation or how far it extends or what its shape is you don't know definitely?

A. Not definitely.

Q. So that your examination there was not at all conclusive either as to the character, the extent, manner, shape, or structure of that three or four hundred feet of stained sand which has been called a gas oil seepage?

A. In my opinion it was definite.

Q. I didn't ask you what your opinion was.

A. I thought you did.

Mr. Lewers—I submit you did.

Mr. Mills—Perhaps I am mistaken. Read the question.

(The question is read by the reporter.)

A. It was conclusive.

Q. Only as to that particular place?

A. Yes, as to the whole occurrence.

Q. Oh, you are able now to state how far in you had to drift at any one point along that distance of four hundred feet? **[2300]**

A. I didn't say that. You didn't ask that question.

Q. Well, I asked you—

(The question is read by the reporter as follows: "Q—So that your examination there was not at all conclusive, either as to the character, the extent, manner, shape or structure of that three or four hundred feet of stained sand which has been called a gas oil seepage.")

Q. By Mr. Mills—I mean of the entire, you understand.

A. We selected the largest exposure.

Q. Well, I mean—

A. I will answer the question.

Q. Did you understand my question?

A. Yes, I did. We selected the thickest and largest exposure. By that exposure we determined positively the character, we determined without any question, in connection with the erosion.

Q. Well, did you determine the character of an exposure four hundred feet away from that by your sinking a drift there?

A. Not in all details.

Q. No. Did you determine the shape or the structure of that gas or oil seepage three hundred feet distant from the place you tunneled in there?

A. No, but we recognized it as being the same.

Q. What is that?

A. No, but we recognized it as being the same.

Q. Same what?

A. Same material and occurring in the same manner.

Q. I am not asking you about the material; I am asking you about the structure and shape of the entire occurrence?

A. No, I didn't need to.

Q. No, then in fact it was not conclusive of either the structure nor the shape nor the extent of that gas and oil seepage, nor couldn't be without a drift at every point, could you? **[2301]**

A. The character of that material was all that was necessary for us to determine, in determining that—

Q. You testified here—

Mr. Lewers—Let him answer.

A. We determined that. The other is—was to my mind then and is now, entirely immaterial.

Q. By Mr. Mills—That is the shape and structure?

A. Therefore we did not take the expense to remove every bit of it from the surface of the hill.

Q. I see. So that you don't know what the shape or structure is on that point; all you know is the character of the material at the point you excavated?

A. That is all we went for. It was definite.

Q. Was the gas which was emanating from that tunnel a hydrocarbon?

A. I didn't recognize and gas.

Q. No, you didn't?

A. No.

Q. Did you look for gas?

A. Yes sir.

Q. How did you look for it?

A. I said "looked for it"; I made inspections to determine, to determine that, of course, by the senses.

Q. Did you light any matches?

A. Yes, I lit matches.

Q. Where?

A. In the tunnels.

Q. Did you dig into the tunnel with a crowbar or anything of that sort and then light a match to see if there was gas escaping?

A. No.

Q. You didn't make a very conclusive test as to whether [2302] there was gas emanating from there, did you?

A. Decidedly.

Q. You smelled some gas, didn't you?

A. No.

Q. Didn't smell any at all?

A. No sir.

Q. Did that fetid odor which was so offensive to Mr. Anderson escape you?

A. It did not. It was very evident.

Q. He said it had a peculiar fetid odor.

A. It did.

Q. You detected that?

A. Yes.

Q. Did you know at the time Mr. Anderson had detected that odor?

A. No.

Q. Did you carry a thermometer with you?

A. No.

Q. How did you determine the degrees of difference in the temperature?

A. Didn't determine the degrees. I determined the variation by the touch.

Q. By the touch. What would you say was the difference in temperature from the outside to the inside?

A. Very slight.

Q. One degree?

A. Well, probably.

Q. Probably?

A. Probably; I don't think you could determine.

Q. Might be less than that?

A. I hardly think so. I don't think you could detect less than a degree ordinarily by the touch. **[2303]**

Q. How many degrees, then?

A. I don't know; one or two, maybe.

Q. What?

A. One or two, probably. It was very slight. I recognized the fact that the exposure had been made small, and it may have been greater and dissipated.

Q. You think you can detect the difference of one or two degrees by the touch?

A. Yes, I believe you can.

Q. Now, gas, that is, natural gas, such as methane, in combination with ethane, and some of its allies, has a tendency to percolate transversely across the stratigraphic beds more readily than petroleum, does it not?

A. I am not sure of that.

Q. Don't you think gas will penetrate an ordinarily impervious substance to oil, quicker than oil will?

A. I am rather inclined—

Q. Particularly under pressure.

A. I am rather inclined to believe a very rare petroleum will penetrate where gas will not, by capillary attraction.

Q. Is it not a scientific fact, Mr. Taff, and agreed to by scientists generally, that gas will penetrate the formations of the earth more readily than oil?

A. I hardly believe so.

Q. And are not the gases on that account found in the higher strata above the oil because of that ability to penetrate transversely those beds?

A. They are higher above the oil chiefly because of the difference in specific gravity. Oil penetrates chiefly by capillary attraction, and I believe will penetrate through spaces, a very light oil, through spaces a gas will not pass.

Q. I thought you said oil migrated because of the **[2304]** hydrostratic pressure, on your direct examination?

A. Yes.

Q. And that that was the reason that it was found along the outcrop. You now think it might have been due to capillary attraction?

A. Well, capillary attraction plays a part.

Q. Plays a part?

A. Certainly, for the reason that I believe, and I think it is a recognized fact, that if the rocks contain no water, it would have no collections of oil at all.

Q. Now, isn't it well recognized as a scientific fact, Mr. Taff, that gas will penetrate transversely across beds which oil will not penetrate?

A. I don't think so. It depends, of course, on the fluidity of the oil, to a certain extent.

Q. Now, if there had been some movement at that point in Section 32 where that gas seepage is found or oil seepage, which would break the crust sufficiently to reach the gas and oil formations below, you

wouldn't at all be surprised, would you, to find that the gas coming up had stained the sand at that point?

A. You wish me to assume what you do.

Q. Yes.

A. If the rocks were fractured.

Q. Well, I mean beneath the surface where there is no evidence of it at the surface at all, would you then be at all surprised to find that gas had come up there from the gas and oil formations below and stained that sand?

A. Assuming as you do that the rocks are fractured, and assuming that the oil and gas do occur below, I would expect to find them, but I didn't see any indications of fractures.

Well, would you regard it as a violent assumption that oil and gas exist below, when the Associated Oil Company, according to the testimony in this case, have discovered a gusher well on Section 30, and another one on 24 and 30 of 30-24, **[2305]** and another one on 24 of 30-23?

A. It is not a violent assumption to expect that some oil occurs at those localities of which you speak.

Q. You are willing to admit, then, under pressure, that there is some oil underneath that formation there?

A. I am willing to admit the presence of oil, if it can be seen.

Q. What is that?

A. I am willing to admit the presence of oil if it can be seen, and it certainly can at certain places.

Q. So that you would determine, from such evi-

dence as you have now, that some oil does exist below the formations in that vicinity?

A. I have not had the evidence to determine the presence of oil beneath the localities mentioned.

Q. Well, don't you know, even unofficially from your connection with these defendant companies, that on a section which corners on 32 of 30-24, where this gas and oil seepage is found, that the Associated Oil Company have brought in a gusher, and have produced thousands of barrels of oil there?

A. I don't know it.

Q. Did you ever hear of it?

A. Probably I have, yes.

Q. Well, if you have heard of it, and your hearing is at all accurate, you then would say, wouldn't you, that there is some oil underneath that formation in 32?

A. Not necessarily.

Q. You are not even willing to admit that, are you, that there is some oil there?

A. No, I cannot say that. If a hole is drilled there and the oil is brought up, then I would recognize the fact.

Q. Now, you stated that in your opinion the Elk Hills are **[2306]** somewhat of more recent uplift than the Buena Vista Hills; didn't you make that statement?

A. I believe I did.

Q. On what do you base that statement?

A. On the character of the folds, and upon the

extent of the erosion into the hills produced by those folds.

Q. How much difference in erosion is there between the Buena Vista Hills and the Elk Hills?

A. I can't state the difference in feet. It is a recognized fact by those who have studied it and myself—

Q. I am not asking you about the recognized fact of other Southern Pacific geologists; I am asking your opinion.

A. I am speaking of myself. I recognize the fact.

Q. You say there is a difference in the erosion between the two; you have testified there is a difference. Now, what is the difference?

A. The erosion in the Buena Vista Hills is considerably deeper.

Q. Well, how much deeper?

A. I can't state the depth in feet.

Q. You can't state it in feet?

A. No.

Q. Yet you say that the reason for assigning the Elk Hills to a more recent upheaval than the Buena Vista Hills is the difference in erosion.

A. That is the chief difference.

Q. And that is as far as you go?

A. On the character of the folds, that is sufficient.

Q. Now, there is a difference of from one hundred to two hundred feet, is there, as far as you have ascertained and observed?

A. Yes, it is greater than that. [2307]

Q. How much greater is it?

A. I can't state.

Q. Is it three hundred feet?

A. I can't state in exact feet.

Q. The Buena Vista Hills have a sharper anticline, have they not, than the Elk Hills, and would tend to erode faster?

A. Not necessarily.

Q. What do you mean by "not necessarily"? You use that term so much, I don't know that I understand you.

A. Well, the erosion would depend, the depth of the erosion would depend upon the comparative—the difference would depend upon the comparative difference in the elevation of the hills and steepness of the slopes. Now, in th Buena Vista Hills—

Q. That is, by the steepness of the slopes, you refer to the anticline, the sharpness?

A. No, the surface of the ground.

Q. Well, where the surface reflects anticlinal structure, underneath, that would be the same, wouldn't it?

A. The sharpness of the folds in the Buena Vista Hills is greater than that in the Elk Hills.

Q. Now, how much difference would that make in the erosion?

A. That would indicate, of course, that originally the slopes were steeper, but that is not the case at the present time, because of the more extensive erosion. In fact, the streams are cut clear across the Buena Vista Hills and down deeply into the core of it, while in the Elk Hills the cuts are not so deep. The Elk Hills are higher than the Buena Vista Hills.

Q. Now, assuming that the two hills were put up at the same time, on the same day, if you please, but that one of them had a sharper anticlinal structure than the other and more steep, how much difference would there be in erosion because of that difference in sharpness of anticlinal structure in the Buena **[2308]** Vista Hills as compared with the Elk Hills, from that period until this time?

A. If they were the same, I think, of course, the progress of erosion in the steeper slope would be greater than it is in the gentle slope.

Q. You think it would amount to three hundred feet due to that cause alone in, say, the time which has elapsed since the hills have been put up, assuming them both put up at the same time?

A. I think so.

Q. You think so?

A. Yes sir.

Q. Well, now, did you know, Mr. Taff, that oil was discovered in the Buena Vista Hills at 2400 feet and in the Elk Hills a gusher was found at 2700, which exactly meets your prediction, a difference of three hundred feet?

A. I didn't say three hundred feet.

Q. So that assuming your statement to be correct that, due to erosion alone, the sharper fold would erode off three hundred feet faster during that elapsed period than the less sharp fold, the Elk Hills, it would be reasonable then to account for the difference of depth in which oil was found in the respective groups of hills?

A. No.

Q. One at 2400 feet and one at 2700 feet?

A. No.

Q. So that I now have, according to your own statement, a determination and reasonable explanation of the difference in the depth of the two oil-sands?

A. No.

Q. Well, isn't it a fact, Mr. Taff, that oil was discovered by the Associated oil Company at 2700 feet in the Elk Hills? **[2309]**

A. If you say so it is probably so.

Q. Don't you know it to be a fact?

A. I don't remember the exact figures at the present time.

Q. And don't you know it to be a fact that oil was discovered on Sections 10 and 11—I have forgotten which—where the Honolulu well is, in the Buena Vista Hills, at 2400 feet?

A. Probably so, but that 2400 feet, without any question to speak of, is much lower in the section stratigraphically than the bottom wells in the Elk Hills. They start from different positions in the rocks, and from the fact that if they are at the same depth, it wouldn't be any conclusion in regard to the relations of the rocks.

Q. What is the depth of oil-sand in the Elk Hills near the anticlinal axis where the successful wells of the Associated Oil Company have been brought in?

A. I don't know; I don't remember.

Q. Did you make any examination to find out what the depth of sand was there?

A. I have seen the logs, I think, of the wells.

Q. Who furnished you the logs of those wells?

A. The logs of those wells, I think were obtained, if my memory is correct—

Q. I am asking you who furnished them to you.

A. Oh, those logs are present in the files of our office, as I remember.

Q. In the Southern Pacific Company's office?

A. Yes.

Q. What logs has the Southern Pacific Company in the Elk Hills?

A. I can't give you the number of the logs.

I don't recall that there was a hundred and fifty-**[2310]** nine feet of oil sand found in one of the Associated Oil Company's wells in the Elk Hills. I don't recall the exact figures. As I remember, there were oil-sands recognized by the log. Assuming that there was an oil-sand there of a hundred and fifty-nine feet, I would conclude that that would not be as great as in many wells,—at least, in the Midway field. I have not made anything like a comparison. I don't know what the average thickness of the sand is in the Midway field. I cannot name any well in the Midway field that has over a hundred feet of oil-sand, but my memory is that some have greater thicknesses than that. I would consider an oil-sand a hundred and fifty-nine feet a large showing.

Assuming that it is true that a well on Section 24

of 30-23 of the Associated Oil Company struck oil-sand at 2750 feet, which continued to 3160 feet; that a well on Section 26 of that township struck an oil formation at 3138 feet, which continued down to 3050 feet, and assuming that the indications in all these wells were practically the same, and indicating in all likelihood that they were in the same formation, I would not consider that as indicating that the sands in which oil had been discovered in these three sections are persistent and continuous for a great and considerable distance, because there are a few isolated localities and they wouldn't be sufficient in an area so far removed from known development to determine the extent of those oil-sands. I have no knowledge on which to base these assumptions.

The well on Section 30, 30-24, is practically two miles from the well on Section 26, and approximately a **[2311]** mile and a half from the well on section 24. I don't think this fact indicates that the persistence and uniformity of that formation passed through section 25. My opinion differs from that of Mr. Anderson, my colleague, on that subject. The same formation might pass into sections 23 and 27, or it might not. I wouldn't want to be in a position of asserting that it did.

On the assumption that the thicknesses mentioned are correct, and that the formations specified in the logs of the three wells are approximately the same I could not have reason to assume that the formation, as a stratigraphic body, probably continued over the entire area of lands in this suit.

I would agree with the first part of the statement of Mr. Anderson in his testimony in this case when he says: "I believe all of those formations which you have specified in the three logs are approximately the same, Mr. Mills. The formation as a stratigraphic body would probably continue over the entire area you name, but the conditions of making showing of oil is another matter," but I would not agree with the latter part.

If I knew those assumed sands were sands, properly speaking, and that they were found in those various wells in positions corresponding to the structure of the hills and in relation to other rocks that I could have a check to know that they were the same, then I would change, to some extent, my opinion in regard to the continuity of the sands. Without the assumption of some more data than that assumed above as to the thickness of the sands in the wells mentioned, I **[2312]** would not assume that there was a continuity and persistence of the oil-sands through the lands contiguous to those wells. I would assume that it was not contiguous unless I had more information or assumed information. Without more information it does not mean anything to me to find, in a triangular form, three wells, showing an enormous thickness of sand at about the same depth. As a geologist I could not determine anything from that.

A well in the center of the Elk Hills which would bring in a thousand barrels of oil the first day, and possibly run to five thousand barrels a day, when

first brought in, would, from what we know of conditions in the Buena Vista Hills, and conditions in very much less favorable circumstances in other parts of the oil field, be an extremely poor showing if it was properly brought in. As to what I would want as a good showing, I will say that it would have to come in under such a pressure that you would not be able to hold the well.

I am not so prejudiced in this case that I cannot fairly and truthfully answer material questions. My answers are based upon facts. I have not schooled myself for the purpose of holding my position to swear this case through at any cost. I have not taken any forethought in regard to the matter at all. As to whether Frank M. Anderson, Mr. Dumble and Mr. Ochsner and myself have cast about, jointly or separately, in order to find some tenable theory on which to account for the productivity of the successful wells that have been brought in by he Associated Oil Company, to the disadvantage of the Government in this suit, I will say **[2313]** that I cannot answer for the other men. As for myself, I have not spent a moment in "casting about". My conclusions are based entirely upon the facts that I learned in the field before this question and this suit were ever raised.

As the evidence will show, in the beginning of the deposition of the Monterey, which is now the Temblor Range, was a series of islands; that is to say, a part of the range had been pushed up above the sea level. The range was submerged. Then followed

the Monterey series of depositions, during an extensive subsidence, followed by an uplifting of the Range to a greater extent than before the deposition of the Monterey series.

At the time the islands existed, the shore-line was oscillated. It is evidently near what is now the center of the range. The low lands or islands were essentially along the line of the axial part of the Coast Range, of which the Temblor Range is a part. There were evidently oscillations in the uplifting of the Temblor Range. Many of those, of course, cannot be read very well. Following the uplift of that range, the coast line passed clear out of the San Joaquin Valley and went to its present position. I don't know of anything that would have prevented the shore line extending out to about where the Elk Hills and the Buena Vista Hills exist to-day, but there is evidence against it.

It is shown in part by the development of the field, and if the shore-line extended out beyond, so that the region in there was land towards the center of the valley, in our deepest wells, they go down through. I **[2314]** think we would have evidence of such more than we have at the present time, and that contrary to what we know of the conditions in the following Monterey-Santa Margarita time and continuing up to the Etchegoin time, because all of those deposits are marine deposits, showing that the sea connected with the ocean, extended and continued in the valley.

The evidence as shown by the relations of the Santa Margarita deposits, the later Santa Margarita de-

posits, and the Etchegoin deposits, are against the hypothesis of supposition, that the shore-line following the uplift of the Temblor Range might have been even beyond where the Elk Hills and the Buena Vitsa Hills stand today, and the supposition that the shore-line retreated far into or toward the center of the San Joaquin Valley.

The evidence that there is 159 feet of sand in the Elk Hills does not necessarily support that supposition. Those sands are far away from the shore-line. The existence of that sand is not evidence that the shore-line was there. During the deposition there was a subsidence, and the coarse material was laid down along near the shore and the fine material, which shows no indication of ripple-marking or wave-action, was beyond the shore-line toward the depths. Fine sand may be carried by the undertow out quite a way; and then there may be a cessation of the deposition—it is not to be presumed that the subsidence was continuous at the same rate. During a hesitation in the subsidence or during a greater deposition, you may have shoaling, shallow water conditions, extending quite a way out, so that the wave-action or undercurrents would extend quite a way **[2315]** out, and you would have inter-collated fine sands and medium fine sands. You would not expect the sands to be deposited uniformly over the entire San Joaquin Valley. It is true that sands are deposited that way in various parts of the earth over large areas, and in great thicknesses in certain directions, parallel with shore-lines, or near shore-lines. There might be such

depositions over at least a hundred miles wide by a hundred miles in length. I don't know. I know of the Dakota sandstone which are known to exist at least two hundred and fifty miles in one direction and two hundred miles in another. That is a fresh water deposit. The existence of the large areas of sandstone and sands mentioned would not in the least affect the conditions in the San Joaquin Valley. The conditions there were entirely different during the deposit.

The Dakota sands are a fresh-water deposit, evidently laid down over a comparatively flat country—known to be a fresh water deppsit because it contains beds of coal, in places, carbonaceous materials, and it is spread over a wide territory in a similar manner with sands, gravels, and so forth, covering a very broad extent through the Great Plains country in the same general region—Colorado, Nebraska, and northward over that same region—which are fresh water deposits, distributed by the oscillations of the streams, and so forth, and stable conditions of land. Following that, there was a subsidence, and the later cretaceous depositions, of which the diatoms are the base there and which became marine engulfed the whole region we refer to.

My reason for drawing the distinction is not en- **[2316]** tirely due to the fact that the deposition was in fresh water in one case, and in salt water in another. The conditions of the depositions are different, and the land conditions are different. In one

case we have a comparatively limited valley upon which there is an uplift, prominent uplift, which is the case of the coast range in the San Joaquin Valley. That is a trough.

The uplift in the Dakota sandstones is essentially continental, very broad; no warping to speak of, but the land evidently formed a broad extent of country and was very flat; in which, in certain places, the coal occurred, coal conditions, and in some places workable coal occurs in Dakota. Each condition, whether of deposition or of economic deposits, will have to rest upon its own interpretation of the conditions in the field where it occurs, and the conditions of the deposition of sand along the west side of the San Joaquin Valley is entirely different than at the deposition of the Dokata sandstone. One is local, and the other is a broad, continental movement.

If the sand is found in the Midway field forty to sixty feet in thickness, and the same sand, stratigraphically, is found in the Elk Hills a hundred and fifty-nine feet in thickness, it would indicate to my mind that the sand was laid down at the same time, or, that it was connected; it may or may not be connected. The difference in thickness would not indicate anything particularly from the very reason that the coarser materials near the shore-line, as a rule, are very much thinner. The fact that that they were stratigraphically the same would not indicate anything par- **[2317]** ticularly. It may have been that in one place the deposit of sand was very much more

rapid than in another because of the influx of the sand along that particular part of the shore-line or near the shore-line. Assuming the sand to be the same, of the same character, you might probably assume that the shore-line was out there in the Elk Hills. It would not mean anyting particular because you would not have knowledge of the connection between the sand in the two localities mentioned. The influx of the sand is from the shore toward the sea. We know that the sands penetrated in the Elk Hills are not the same as those penetrated in the Midway field.

I began examining lands in the Midway fields in December, 1909, and have spent two or three months, all told, in the field making such examinations. I have been in the Coalinga, Kern, Maricopa, Midway, McKittrick and Lost Hills fields. I don't know the exact number of wells in any of these fields. I should estimate that there are probably as many as 854 in the Coalinga fields; 1690 seems to be a large estimate for the number of wells in the Kern fields. I have not spent very much time in that field, particularly in the development of territory. I don't know that there are 283 wells in the Maricopa fields. I never made an estimate; in fact, I don't know where the division line is between the Maricopa and Midway fields. 900 wells seems to be a large estimate for the number of wells in the Maricopa and Midway, but I couldn't say what the number is. 304 wells seems a large estimate for the number in the McKittrick field. I don't believe there are quite as many [2318] as fifty-six wells in the Lost Hills.

I could ont pretend to estimate in any way closely the production of oil in these fields. An average production of 54.9 barrels per well in the Coalinga field might appear to be a reasonable production, but I need more basis for consideration than I have in mind, to make a fair estimate. My information is not sufficient to enable me to say that an average daily production of 15.7 barrels per well in the Kern field would be a reasonable production. I know that quite a good many wells in the Kern field are pumped that make a small production, anywhere from ten barrels, up. I cannot say that an average production of forty-nine barrels per well in the Maricopa fields would be a reasonable estimate for the reasons I have given above. That production seems low, but I cannot pass judgment on it, and I shall have to make the same answer as to the Midway, where the production is assumed to be a hundred and six barrels per day. I would presume that an average production of fifty-eight barrels per well per day in the McKittrick field would be a reasonable estimate from the fact that most wells in the McKittrick field are older than wells in some of the other fields. I can't say that an average of ninety-one barrels per day per well in the Lost Hills would be a reasonable production. In answer to the question as to whether I regard a well in the Elk Hills which would produce on an average of three hundred and fifty barrels per day so long as it was permitted to flow, commercially paying oil territory, I will answer, without further information, that the well would be an absolute failure. I base **[2319]** my

answer on general information in regard to the conduct a and behavior of wells in that general field. If complete conditions in regard to an estimate were stated, I would make a different answer probably. The question as to whether such a well would evidence excellent prospective oil territory would depend upon circumstances in regard to the position of the well in the hills, or in respect to the structural conditions. Such a well in the position of the Associated Oil Company well on 30, 30-24, would be a symptom of oil production in that immediate vicinity, around that well. In other territory and under other conditions I, as a geologist, might recommend the investment and expenditure of money with less evidence than the anticlinal structure which we have in the Elk Hills, and the fact that the well was sunk and brought in at the rate of 350 barrels per day until it was stopped by people who were operating in other territory. But if I lacked the information in regard to the situation, I would not conclude that that would be sufficient evidence to indicate excellent productive oil territory.

I claim to be competent to judge what would be a paying well in any territory in those fields from the general information I have in regard to the fields; in regard to the drilling, and in regard to the production, notwithstanding the fact that I do not know the average production of the wells in any one of the fields mentioned above.

A geologist, in attempting to pass upon the value of oil territory might, or might not, first estimate the

[2320] production of the wells in the territory he was examining. That would depend upon circumstances as to whether he came into that part of the field first. He would realize that, if he determined any thing positively he would have to study his geology carefully, and he might do that first; that would be the most essential part of the work. I cannot, on the assumption that the average daily production in the Coalinga field of the active wells is 54.9 barrels, for the Kern field 15.7 barrels, for the Maricopa field 49 barrels, for the Midway field 106 barrels, for the McKittrick fields 58.5, and for the Lost Hills 91.6 barrels, say what would be the production of an average paying well in the Elk Hills, because I can't tell what the average cost of the drilling of the wells would be in an attempt to get oil in the Elk Hills.

I know of my own knowledge a little about the production of wells in the Elk Hills. I was there when they were producing a little. I examined one well on section 26, 30-23 that was producing, and another well which was not producing at the time I was there. The producing well was estimated at forty-five barrels per day. From the best information I obtained, those wells were four thousand feet deep. When I was over there in the Elk Hills I was, to a certain degree, seeking information to be used by me as a witness in this case to support the contention of the railroad company.

I am acquainted with W. A. Williams. I think he is the only geologist of the Associated Oil Company. I don't know whether he is the chief geologist or not.

He did [2321] not tell me when I went over there to make that examination that he regarded sections 24 and 26 of 30-23 and 30 of 30-24 as having a good position for oil-bearing; that he had advised the Associated Oil Company to prospect and develop those lands; that the oil was discovered on 26 and 24 of 30-23, and on 30 of 30-24; that after a careful examination of those lands and the adjoining lands, based on his knowledge, education and experience as a geologist, he recommended the development of those lands for oil purposes; that there was a distinct evidence of anticlinal structure accompanied by outcroppings on the anticlines in the Elk Hills, which in his opinion would influence any one in the expenditure of money in developing that territory; that he found croppings of gas in several places; along the anticline where gas had escaped from the ground; that on digging down by a pick into one cropping, lighting a match, the flame would flicker as the gas came up through it; that those croppings included the gas cropping or seepage on section 32 of 30-24, which he says is on the same anticline as the wells which were drilled on the three sections I have named; that he had examined carefully the daily drilling reports of all the wells, which had to be submitted to his office, showing the formations gone through and the indications reported each day; that the daily slips on Well No. 3 on 24 of 30-23 from a depth from 2750 to 3160 feet showed gas with oil; that in his opinion the formation of the Elk Hills was practically the same as the formation in the McKit-

trick proper, and in the Buena Vista Hills, and of the same thickness as the Buena Vista Hills. He did not tell me any **[2322]** part of that statement, and I don't know that those things are true.

My opinion might be affected to a slight degree in regard to the particular locality where the wells were located if, in the Associated Oil Company's well No. 3 on 24, 30-23, 300 feet of oil and oil formations and gas formations which varied from 1000 to 1500 feet in thickness, was struck, and if, within a mile or a mile and a half of that well, there had been wells found with an immense pressure of gas, and if none of the gas or any part of it was marsh gas, and the gravity of the oil on section 26 was 38.5 degrees, and if the discovery of oil was made on section 30 of that township at 2712 feet, and if oil was encountered in both shale and sand, and if the oil flowed out over the casing for ten days or until the men operating the well stopped the flow by drilling deeper and pushing the casing past the formation; if, on section 26, 30-23, oil was encountered at 3104 feet, the principal supply of oil came in that well from 3240 feet in both shale and sand, and flowed for a year and three months, off and on, and always flowed when they were not working on it. Upon these facts I would not reach the conclusion by any means that the lands are commercially valuable for oil.

With these facts in mind I do not know that I would condemn the territory, but I don't know, either, that I would favor it under the circumstances. If these things are true it might alter my opinion in the par-

ticular locality as to the production of oil. The locality **[2323]** of these wells is near the apex or axis of the anticline, where the wells are situated in sections 24, 26 and 30, and for that reason I would consider the facts mentioned a very poor showing.

I don't know whether a man who has drilled 250,000 feet of oil wells in his experience as a practical oil driller in charge of crews, has as much experience as I have in estimating the cost of bringing in a producing well. Such men as I know receive their wage, and that is practically all they do know, as far as cost is concerned.

As superintendent of a company, drilling to that extent, I dare say he would gain ample information to enable him to make an estimate, but that does not necessarily apply to a driller. If a man after that length of experience should say that a well in the Elk Hills producing fifty barrels of oil a day, would be a paying well at a dollar a barrel, I would raise the question as to the reliability of his estimate. I never superintended the drilling, or drilled an oil well myself, but I consider myself competent to judge the cost of putting down a well. I mean by that, that I am in a position to examine and dtermine, and have the means to determine the cost.

I am satisfied that there is oil in the Elk Hills. You may let it appear fully in the record that there is one geologist of the Southern Pacific Company that acknowledges there is some oil in the Elk Hills, a little.

I do not persume that all the oil escaped along the shore-line of the eastern flank of the Temblor Range

before the Elk Hills were uplifted. There might have been **[2324]** some left there. I have not concluded that hydrostatic pressure drove all the oil out. I did say that the water in the formation drove the oil up. I stated that there had been a constant drain of oil from the Etchegoin or Monterey time at McKittrick which continued uninterruptedly. I have not made the statement that all the oil was drained from the Elk Hills; it was not so drained entirely.

I saw deposits of brea in section 14, 30-22, at the railroad cut north of McKittrick. I would not say that they were in place. They were brought down by a stream. I did not see any which had been transported by the stream. The hills north of McKittrick are in line with the Elk Hills, but not a direct continuation. I am not able to swear that the structures do not join, but that is my opinion from the best evidence I can get. It is a continuation of the general line of structures, but there seems to be a lapping of folds, somewhat in the same order as the Buena Vista and McKittrick hills. I would say that there was the same correlation between those hills and the McKittrick hills that there would be between the McKittrick and Buena Vista hills. The Elk Hills were essentially one uplift. I can't say whether there was a partial uplift prior to the main uplift. There was an uplift in the Elk Hills before it reached its present stage. There was evidently a movement from the time the uplift began till the present time; but you can't compare the separate low ridges that form the Elk Hills as to age.

There have been several movements in the McKittrick anticline. The Elk Hills and McKittrick Hills were not all [2325] one general movement. I cannot tell that the last squeeze or pressure in the McKittrick Hills was earlier than the main uplift or any uplift in the Elk Hills. The likelihood is that there are movements going on there at the present time in both places.

The presence of gas is a suggestion of the presence of oil, but not necessarily a good indication. I would not consider gas by itself as a good indication of oil. Many occurrences of gas have led men to spend money who didnt get any oil. I stated in the paper which I wrote sometime prior to the publication of Geological Bulletin 381, at page 511, as follows: "The principal oil-bearing rock in this region and the only one which has produced oil in any considerable quantity is at or near the base of the Trinity sand, a little more than 400 feet below the surface at Madill. The oil-bearing rock is a deposit of compact sand and gravel, but the particles and pebbles are not cemented together. Although the oil seems to be almost wholly confined to this horizon, gas has accumulated in other positions in the Trinity sands besides the one in which the oil is found, and this would seem to indicate that oil might be found at similar horizons farther south, where they lie at lower levels and at greater depths from the surface."

In the vicinity or at some distance from an actually proven oil field, the presence of gas is an indication of the presence of oil.

I now agree with the statement made by me in part 2 of an annual report of the Department of the Interior, [2326] published by the United States Geological Survey in 1900, wherein I said at page 285: "A knowledge of the geologic structure of the rocks in which coal beds occur and of the combined effects of structure and erosion on the topography or surface configuration of the land is necessary to the most successful economic prospecting and exploitation of the coal. Except to test the thickness and quality of a particular coal bed, the drill not be called into use in a coal field of this nature. All the known coal fields are associated with sandstone beds of considerable persistency, which make their presence and location known by more or less elevated hills and ridges. When the interval between such sandstone and coal beds is once established, the crop of the coal may be located as rapidly as the sandstone ridge or outcrop can be traversed. The dip of the sandstone may be determined at almost any point by measurements on its outcropping ledges. The coal beds, on the contrary, usually lying in shale, have their edges worn down and concealed by soil and rock debris. The sandstone and coal near at hand remain nearly parallel. The distance from the coal outcrop from that of the sandstone can be readily estimated when the dip is known. The deeper the dip, the nearer together will be the beds at the surface. The position of the crop of a coal bed being known, a knowledge of the grade and approximate depth beneath the surface throughout its area of occurrence is dependent en-

tirely upon a knowledge of the structure. With such knowledge the availability of the coal for mining, according to its inclination and depth beneath the surface, and the area of coal which may **[2327]** be successfully mined may be known, and a proper estimate may be made for the necessary mining plant and facilities for transportation of the coal. The proper method of mining in a particular locality can be best determined by the study of the structural features of that region."

Notwithstanding that statement, I am not willing to wihtdraw the statement in my testimony, that the best way of determining the area and extent of coal is by the drill.

There is no uniformity of rule concerning the currents or persistence of coal beds. Variations occur in three general ways: It frequently happens that bordering the coal basin where the coal has been deposited there have been deposited sediments, sands and clays in shallow waters; occasionally incursions of the bodies of water contiguous to the coal swamps, coal areas carry these silts and sands into the coal area during deposition, so that you have an interfingering of shales and sands in one direction with the coal in the other direction; coal beds broken up. That is where it has been found in a solid bed, for instance in the middle of the coal area where the sediments are not laid down, tracing that as you can in many cases, you find it broke up, fingering out, and being mixed with silts and sand sediments, so that the good coal or workable coal may become worthless because of the

quantity of sediments brought in and laid down at the same time. That is a common occurrence, and a matter that has to be looked after carefully in making an inspection and survey of coal fields. Often there is no means of determining on the grounds by surface in- **[2328]** spections just where these silty and sandy sediments may come in, and in what direction they come in. Another variation in regard to the deposition and occurrence of coal is based upon its relation to the local land areas. Its border-line will be irregular; naturally slight elevations of land would penetrate into swamps from the main body of the land on the side, local elevations or hummocks or islands may occur in coal swamps which is naturally seen in the swamps at the present time in the deposition of peats. After the coal is submerged and it becomes a coal bed, why these are interferences that have to be dealt with in considering the coal. An island that interferes with the coal may be entirely outside and not connected with the coal outcrop, and again it may be in large part or small part.

Another cause of the variation of coal sometimes occurs because of erosions; that is, there will be a subsidence and incursion of the waters that will carry sediments and completely cover the coal bed to a shallow depth, and because of climatic changes, introduction of river currents, or slight elevation of the land, channels may be cut (through) this sediment and into the coal, displacing and removing part of the coal beds. That has been found to occur. Those are the principal causes for the variation of coal beds, as far

as I remember. Of course, when you come to the matter of variation of the quality of coal, it is not necessarily governed by those conditions mentioned.

Coal does not always occur in large areas. It [2329] has been found by investigation of coal fields, that as far as exposure and development can show, that coal swamps in which the coal is deposited were long, narrow bodies parallel, most likely, to shore-lines, and again they were broad and circular, and again they are local, occurring in small swamps, small separated areas. That would naturally occur where you have a low flat land that has sink holes or local irregularities. During subsidence, and when the water reached those areas, you would have local, small swamps in which peaty material would accumulate, and which would finally produce coal, so that each individual area, in order to determine its character and possible original extent would have to be inspected practically by itself.

After the preparation of the preliminary report relative to the Choctaw coal lands above referred to in my testimony, I made a classification of the lands, and as to the general situation and persistence of the coal, and as to the ease or difficulty with which its extent could be determined, I will say that the coal field lies in east, west direction along the northern slopes of what are known as the Ouachita mountains. Those mountains were the land areas during the deposition of this coal. The coal as exposed is approximately parallel to this shore-line. The present out-crop of the coal and the coal dips to the northward generally

down beneath the Arkansas river valley. The outcrop extends from the western part of what was then the Choctaw nation, and now central and southern Oklahoma, eastward into Arkansas and forms the Arkansas coal field.

The conditions there would render a determination [2330] of the persistence of the coal easy. It was easy to determine the persistence of coal in the direction and with the outcrop, but not in the other direction,—that is, as I was just beginning to explain, the coal dips downward beneath the Arkansas Valley towards the north. The same formations come out on the north side of the valley and the south side of what is known as the Boston Mountains in Western Arkansas and Eastern Oklahoma; and on that north side, while we can recognize the formations, the coal is of no account.

I prepared the material from which the Circular entitled "Department of the Interior, Circular No. 2, Maps of Segregated Coal Lands in the Wilburton-Stigler District, Choctaw Nation, Indian Territory", just handed me, was compiled, and also the map attached to it. That circular covers the central portion of the area of coal land I have just referred to.

The circular mentioned was at this time offered in evidence and marked Defendant's Exhibit No. 114.

The Board of Oil Land Classification, concerning which I testified on cross-examination, did nothing to my knowledge. I think it was not taken as a serious institution by the members of the Geological Survey; that is my impression. I got information from Mr

Ralph Arnold, the other and principal member of the Coal Classification Board, that the Board had not classified the lands referred to in Bulletin 406. Mr Arnold made that classification himself. **[2331]**

The deposit known as the Dakota sandstone, referred to in my cross-examination, was, in the main, laid down in shallow, shifting fresh waters. An examination of the sandstone would lead geologists to consider that it was laid down in the presence of currents of water. The formation is cross-bedded to an extreme degree; by that I mean that the beds overlap each other. Besides that, there are frequent indications of ripple-markings, local interferences of currents of water, local erosion and redeposition, during the formation of the Dakota sandstone.

It was not deposited in deep water, but was carried there by fresh water, by stream action, by the oscillation of streams upon a very slightly inclined surface. I would not expect to find and do not find anywhere, to my knowledge, any similar conditions existing where there is no large continental body bounding the particular area. I certainly would not expect to find deposits of sand carried over such an area adjoining a long narrow island or a series of islands.

As to what, in addition to my own personal investigations upon the ground, have been the sources of my information in regard to the geology of the west side of the San Joaquin Valley, particularly in the vicinity of Sunset and McKittrick, I will say that early in 1911, in the latter part of March, we began a detailed survey of the Sunset-McKittrick region. We began

at the south end, south of Maricopa, and carried the work northward, including the entire Temblor Range above the great fault which lies upon the southwest side of the coal fields in Sunset, Midway and McKittrick, across the oil field, I should say, oil field of the Sunset, Midway and McKittrick. [2332] At the end of the working season of 1911, sometime in June, we had completed the area to the north edge of the McKittrick township, the township in which McKittrick occurs. In 1912, we resumed the work and carried it northward to a point west of the Lost Hills, including the Lost Hills. We also returned and continued work southwward and westward around the south end of the San Joaquin Valley where developing is being projected or had been projected.

That work was in my charge and under my direction, and was done by three principal assistants: G. C. Gester, B. L. Cunningham, Fred H. Kay, E. G. Gaylord and B. F. Parsons. The last two devoted only a part of this time to the south and the north—to the south of Maricopa and to the north of McKittrick. Mr Kay was connected with the survey until the work had been carried north of McKittrick.

As to what supervision I had over the work, and as to what I did in connection with it, I will say that I visited the parties of which there were two working in co-operation at various times, remaining with the parties until in each case we were assured that the geology of the particular districts was thoroughly understood. In some cases where there were some differences of opinion as to some details between the

parties, why the work was gone over together and checked and conclusions reached. In this way, the entire formations of the area were carefully surveyed and mapped, and in all the interior portions where the formations occur, careful inspection was made in practically [2333] every section of the region. Maps were made when the work was done. The only satisfactory way to carry on detailed geologic mapping is to do the mapping while the work is being done from day to day, so that the proper conferences can be had and adjustment of the work can be made, and if there are differences of opinion, why the back work is in hand.

During the time the work was going on I examined the maps made there by different individuals constantly in the field, and the members came to the office and we kept in careful touch with the progress of the work, so that as far as I am concerned I felt that the geology as understood by myself was as complete as by any one or all of the men that did the work. I will say, by the way, that these men are college trained men and have had experience, trained in geology in the universities and considered entirely competent men.

It would not be possible to determine the sort of wells in the Elk Hills that would be productive and commercially profitable by taking the average production of oil wells in any other locality, without at the same time determining which of the other wells were paying, and without also knowing the depths to which the various wells went. As an illustration,

I wish to refer particularly to the McKittrick field, which is the nearest to the locality mentioned, and that is during my inspection of that locality all the wells were investigated as to their depth and mode of drilling and the difficulties, the water condition; the water condition was considered with **[2334]** particular care; the production of the wells were inspected and considered with particular care with respect to the water problems, and it was found that a large part of the field had been inundated by water from the syncline which lies to the east of the McKittrick front in the Elk Hills; that by an inspection since that time which was in the latter part of 1909, it is found that this water area has considerably enlarged and at the present time occupies a larger part of the now developed and producing McKittrick field, so that the wells that were once highly productive in some cases now approach one hundred per cent of water so that their production of oil is very low. I know by that that an average production of the McKittrick fields would be no criterion upon which to make a comparison of the value of the production in an undeveloped field.

Difference in the depth would certainly make a difference in the cost of production.

With the knowledge we have of the structure, the oil sands in the wells on section 26, 30-23 and 30, 30-24 referred to in my cross examination, could not be on the same stratigraphic plain because they should be nearer the same distance from the surface than they are assumed to be. In reaching that conclusion

I have taken into account the difference of the surface topography and also the fold in the anticline. The crust of the anticline that passes through section 26 passes near the southwest corner of section 20 in township 30 - 23, and I do not think that a well sunk near the middle of the southeast quarter of section 20 to the depth of 4005 feet which showed no sand, **[2335]** but a continuation of shale and hard shell from a depth of 2500 feet down to the entire depth of the well, would indicate the continuity of any sand bed throughout that territory. I do not think any portion of section 22, 30 - 23 is on the same anticline on which the well in section 26, 30 - 23 is situated. It is situated on the corresponding anticline that passes through 26, corresponding local fold of the same general anticline, and the well on section 30, 30 - 24 has approximately a corresponding position on the same anticline.

The assumption that an oil formation was encountered in the well on section 30, 30 - 24 at a depth of 3700 feet, and from that down to 3100 feet or a little lower, and that a well on section 22 on the same anticline went to a depth of 2980 feet, found no oil, and there encountered a heavy flow of soft water, would not indicate to me the continuity of the oil formation assumed to be in section 30.

The geological relations between two territories such as the relation between the old Etchegoin shore-line and the Elk Hills and the Buena Vista Hills, are not determined by merely measuring distances as a crow would fly; and that cannot be done

in that particular case because the structural conditions are different at the present time, and without doubt have been different for a long period of time, that is, back until the deposition of the rocks that contain the oil, and the two localities cannot be compared in their geological relations in connection with the occurrence of oil.

As to the chief geological or structural differences, I would say that in the most southerly locality measur- **[2336]** ed from the outcrop to the central part of the Buena Vista hills, the structure is simply and essentially a monocline from the outcrop down to the Buena Vista Hills; in other words there are no structures intervening that would interfere with the passage of oil from the underlying rocks to the rocks above. At the other end, the other locality where an approximately corresponding distance was measured from the outcrop to the extreme southern edge, southwesterly edge of the Elk Hills crosses the southern part of the McKittrick anticline which is, as has been testified to, a very old anticline compared to the fold of the Elk Hills and which has interfered with the accumulations of oil eastward and from which very long periods of time oil has been wasting from the rocks in which it had its source, and the rocks in contact, and as has been explained it is adequate reason for the oil conditions of the Elk Hills.

RE-CROSS EXAMINATION.

Concerning the map which I am examining with reference to the position of the anticlines in the Elk

Hills, I will say that it was not prepared by me, it was prepared by men who were associated with me in the field. I have checked it in part; I have checked it in those localities.

The red line indicates the anticlines. The green line represents the limits or outcrops of the Tulare formation, the exposed formation on the surface of the Elk Hills. The green coloring is carried across from the south part of the Elk Hills and crosses the valley. The map is not a **[2337]** complete map; it is the result of partial work in the field. The fact that the light green coloring goes down across a certain township lying near the foot of the map, and there quits, does not mean that the Tulare formation ends there. The explanation of that is that the results of the work on the township to the south occur on another map. This is a partially complete map of results of field work prepared in the progress of the field work. It is complete so far as I know in respect to the outlines of the Tulare formation. In other respects in regard to the exact position of the structural lines as shown on there, and as to the exact outcrop of brea, certain changes have been made since this map was prepared, on account of the difficult structures, there were differences of opinion, and this was prepared by one or two men working together, and the other men working over the same field raised certain questions in regard to the difficult structure, and in regard to the position of things. It does not represent accurate results in detail in

some respects. There have been changes in some respects on account of additional work.

The map referred to was here offered in evidence as plaintiff's exhibit 5-H.

The witness continuing, testified as follows:

The red coloring on 30 - 22 represents the outflow of brea, surface brea. The yellow represents the McKittrick anticline, and the outcropping of the Monterey, Santa Margarita formations. The little red marks on section 32 inside of the line, indicate the surface of the fold, slightly folding, showing also slight indications of an anticline. **[2338]** The two marks on section 32, 30 - 24, crossing the larger mark, indicate that the rocks dip to the northeast and southwest in that locality. The long mark in section 32, 30 - 24, extending generally in a southeasterly and northwesterly direction into section 30, indicates the trend of the anticline, but whether the accurate dips could be obtained there is a question. As to the red blotches in section 34, 30 - 22, I will say the red blotch furthest north in the southeast quarter of this section indicates surface tar, sands, that were obtained principally from — probably wholly from wells that are abandoned; tar out of the wells and some surface. The other indicates, the one down near the southern line of section 34, indicates an outcropping of the Santa Margarita or Monterey formation, and seepages of tar. The locality was so small it was not colored.

The letters "Qual" in section 20, should be

"Quat", and is an abbreviation of quanternary, recent deposits.

On the assumption that in the Associated Oil Company's well on section 24, 30 - 23, an oil-bearing formation 410 feet thick, beginning at 2750 feet, was found; that in its well on section 26, 30 - 23 oil was discovered at 3138 feet, and the oil formation continued at 362 feet; that in its well on section 30, 30 - 24 oil was discovered at 2712 feet, and an oil-bearing formation continued at 338 feet; and upon the further assumptions that the surface of the ground on section 24 was 970 feet above sea level; that the surface of the ground at section 26 was 1308 feet above sea level, and that the surface on section 30 was 950 feet above sea **[2339]** level, I would say that the assumed oil horizonz would be practically at the same level; but, without further check to identify and correlate the oil sands, it would be entirely unsafe to correlate them and declare them to be the same. It is true, all of these wells occur in the central part of the Elk Hills where the structural conditions are not particularly or extensively variable; still, in order to correlate, I think a man seeking for the truth would demand more evidence before he would declare or attempt to correlate them as being the same. I would want more evidence as to these particular wells, as to the character of the sands and the character of the rocks above the sands and below the sands; and if the sands were the same, this would not tend to prove a great deal of the land on each side of

those wells and particularly along that anticline.
[2340]
Equity No. 221

IN THE DISTRICT COURT OF THE UNITED STATES FOR THE NINTH CIRCUIT SOUTHERN DISTRICT OF CALIFORNIA NORTHERN DIVISION

THE UNITED STATES OF AMERICA,
Plaintiff,

—vs—

THE SOUTHERN PACIFIC COMPANY,
a corporation, et al,
Defendants.

EXHIBIT A.

Condensed Statement of Evidence in Transcript on Appeal as Approved by the Court and to be Printed.

VOLUME III.

E. T. DUMBLE, a witness called and sworn on behalf of the defendants, testified as follows:

DIRECT EXAMINATION.

My home is in Houston, Texas. My official residence is at San Francisco, California, where I am consulting geologist of the Southern Pacific Company. I was appointed to that position in 1897.

In 1875 I went with the general office of the Houston & Texas Central, which is now a branch of the Southern Pacific, and the Sunset lines, the Atlantic System of the Southern Pacific. I was with them until 1879. During that time I made numerous geological examinations and reports for them, and from that time until 1887 I was consulted frequently by them on geological matters.

I was State Geologist of Texas from 1887 to 1897.

In addition to having offices in San Francisco in connection with my duties with the Southern Pacific, I have an office in Houston, Texas, in connection with the Rio Bravo Oil Company, and also at Tampico, Mexico, in connection with the East Coast Oil Company. I have resided in Texas since 1852. **[2342]**

I first became connected with the California Oil fields in 1901. I can fix dates from a series of yearly diaries which I have kept to keep track of my movements and my small expense accounts for the company, and such matters as that, for a number of years. I kept the diary in 1901, and since that time.

Prior to the 1st of January, 1903, I had no fixed office anywhere. I was working all over the country, from Texas, to Mexico, to Portland, wherever I was called, and I did my work wherever I might happen to be, but kept, as far as I could, copies of my correspondence. January 1st, 1903, I opened an office in Houston, and the latter part of March of the same year I opened one in San Francisco. Since that time it has been customary for copies of letters and re-

ports to be sent, if I was at San Francisco, to the Houston office, and, if I was in the Houston office, to San Francisco, so that we have had, from the first, at least duplicates of a large amount of correspondence at both places — that is, I had two files, one file at Houston and one file at San Francisco. With reference to each file, however, that at San Francisco and that at Houston, there were some things that were not sent to the other—things pertaining strictly to the California field might not be sent to Houston, or things pertaining strictly to the Texas fields might not be sent to California. And, furthermore, if a letter came to me at one place and I answered it from there, sometimes a copy of the letter that I received at the one place was not sent to the other, although a carbon copy of my answer was sent. So that, in the early part of the work the files are [2343] not absolutely complete, to that extent.

The files in my San Francisco office burned in the fire which occurred there April 18, 1906, and such portions of those files as I have now were taken from my Houston office.

My connection with the California oil fields began in July, 1901. I came to San Francisco on receipt of a telegram from Mr. C. N. Hayes, who was President of the Southern Pacific Company at that time. I arrived at San Francisco on the 9th of July, where I saw Mr. Julius Kruttschnitt, General Manager of the Southern Pacific Company, and made an appointment to meet Mr. Hayes the next day. I met Mr.

Hayes the following day, and he told me of the oil work that was being done at Oil City and McKittrick, and asked me to go to those points and look over the work and report to him whether, in my opinion, it was being properly done.

On July 12, 1901, I left for Bakersfield and Oil City. At Oil City I met Mr. J. D. Treadwell, who was in charge of the properties, and with him went over the company's plant on section 3 and looked through the operations generally in that field. The next day we went to McKittrick and looked over that, and I returned to San Francisco, arriving on the 15th. I made my report to Mr. Hayes on the 17th, in writing. I have no copy of that report, which dealt with the operations as they were being conducted by Mr. Treadwell on those two properties, the one at Kern river and the one at McKittrick. By operations, I mean the drilling of wells and the production of oil. It was not a geological report. **[2344]**

From that time on, I acted in an advisory capacity to Mr. Kruttschnitt. Requisitions for materials in the field were sent to me for approval, and I also passed on requisitions for authority to drill wells. I passed on such matters as went to Mr. Kruttschnitt as Manager.

I had a great deal of work to do after July 17, 1901. I was working at that time in the coal fields in Oregon, doing some prospecting work around Medford at different points. I believe right immediately at that time I made a flying trip to Coos Bay and on up

the road to Eugene and Helen, and all the different coal fields from which I could learn anything in Oregon. And after that I put in a force for prospecting the coal at Medford and at Evans' Creek. I spent the balance of the month of July in Oregon.

I left San Francisco for Texas on the 13th of September, and I arrived in Houston on the 17th. Subsequent to that time I carried on investigations of that kind at other places up to some time in July, 1902. Outside of my advisory work on the two oil fields which Mr. Treadwell had charge of, I had nothing to do with reference to oil field work until the 31st of July, 1902, when I received a telegram from Mr. Kruttschnitt to meet him in Houston, where I met him on August 5th, when he told me that he wanted me to take up the examination of the oil fields in Texas and Louisiana, which I immediately proceeded to do, and continued with for some months.

On the 29th of August, 1902, I received a telegram from Mr. Kruttschnitt in which he asked me to suggest a man **[2345]** to take charge of the oil territory in California. I didn't find anyone available for that purpose except Mr. Josiah Owen, who was at that time managing the prospecting work I was having done in Oregon, and I telegraphed Mr. Krutschnitt recommending him. I telegraphed Mr. Owen to report to Mr. Krutschnitt, and on the 11th of September I wrote a letter to him, which I believed to be the letter referred to in the testimony of Erwin Owen.

In that letter which is attached to plaintiff's exhibit 4-H, I gave information regarding the field, and instructions as to what to do. After I communicated with Mr. Owen he came to San Francisco and took up the work, as shown by his reports. He had not been employed in any way in connection with the California oil field prior to September, 1902. From the best information I have he examined section 3 in the Kern River field and the McKittrick fields — the properties we are operating, and also went to Coalinga. I was not in California then.

Before leaving San Francisco in September he, under my instructions, obtained maps showing the company's holdings in the Valley from the Land Department of the Southern Pacific Company. The map just shown me was a map that was furnished Mr. Owen at that time, and which has been in my possession ever since. The date stamped in the upper left hand corner with a rubber stamp indicates the date it was forwarded to him by the Land Department. The only changes made in the map since that time are pencil shadings outside of the territory shown by the Land Department that I put on it, to show the land that the Santa Fe owned. There were no other changes except maybe pencil figures showing the town- **[2346]** ships so that I could get at them more readily. The red and green shadings on the map were there at the time it was received by me with the exception of these pencil shadings, which are of a different color entirely. The written legend which appears on the lefthand side of the map was

on it when I received it. Mr. Owen did not have this map with him in the field. He may have had a copy of it or something of that kind, but this particular map has been in my possession since December, 1902.

The map referred to was here introduced in evidence and marked defendant's exhibit 115.

The statement in the legend of this map which says, "All shaded tracts reserved from sale because in or near oil territory" refers to lands that were not reserved by me. Mr. Treadwell had told me that there was a reservation. What it covered I did not know. I have no personal knowledge by whom the reservation was made.

Mr. Owen's first work was geological only, and he made reports of his work. I came to San Francisco on November 13, 1902, and took up my work there in connection with Mr. Kruttschnitt and Mr. Owen. The first work was to make a trip through the California oil fields, getting an idea of what they were. I made that trip with Mr. Treadwell. I went to Bakersfield on November 16th, and started to work on the 17th. Spent the 17th, 18th and 19th at Oil City in the Kern River field; went over all the different territory there. This trip was for the purpose of looking after the [2347] oil production possibilities of the California fields. In preparation for that trip I had read the different authorities that I could find on that field, — publications which had been made, bulletins of the States Mines Bureau, and the United States Geological Survey—such papers as that which

I could obtain. It seems to me that I had Eldridge's Asphalt Report, I am not positive about it. I had Watt's reports and such things as that.

After being at Oil City with Mr. Treadwell, we went to McKittrick on the 20th, and spent that day looking over the different properties there, from the south end to the north end, ending with our property, and the Shamrock, and all the properties right up to the line. We went to the quarter section on which Mr. Treadwell had drilled. I don't know the number of those properties. We also went to section 7, in 30-22. I think possibly we had one well going down on what was known as the North End Lease in that vicinity, which was showing salt water, gas and sulphur, at that time. I believe that well was drilled by Mr. Wible, or he was interested in it. There were wells which had been sunk over near section 7, where they claim to have gotten a little asphalt; they were not producing oil. The wells sunk by the company in 1901 were at the south end of that field. They were working on them at that time. I don't think they ever produced any oil to my knowledge. Mr. Treadwell had a map with him, showing what he considered to be oil land in that territory, which was used on that trip. The map now shown me is the map Mr. Treadwell had, or a copy of it. The legend in the lower lefthand corner is in [2348] Mr. Treadwell's handwriting. The map has been in my possession since that time, and is in the same condition as it was when I received it. I did not see Mr. Tread-

well have a large map of the oil fields, including 30-23 and 30-24. I don't remember seeing such a map in his office.

The landsmarked "J. B. Treadwell" on the map referred to above in part belonged to the Southern Pacific Company, and I think some of them were Mr. Treadwell's individual property. He bought lands in there in his own name, and gave the company the option to take them at the price he paid for them. There are some tracts the company did not take and they remained his own property. Just which they were I cannot tell. I cannot tell whether the tracts marked J. B. Treadwell on 30-22, 30-21 and 29-21 belonged to the Southern Pacific or not. I didn't pay much attention to any on there because I knew he was acting for the company in there.

At this time the map referred to as having been furnished to the witness by Mr. Treadwell was introduced in evidence and marked Defendant's Exhibit 116.

On November 21, 1902, Mr. Treadwell and I left McKittrick with a team, went out over the hills by way of Crocker Springs to the Chanslor-Canfield Camp, which is now the Santa Fe Camp, at Midway. We looked over that property, stayed there all night, and drove back next morning by way of our section 5 in 32 - 23, and that afternoon went back to Oil City. We did not during any portion **[2349]** of that trip go into the Elk Hills. The Elk Hills were not then discussed specially, unless the little anticline there on

the railroad would be called "Elk Hills". He called my attention to that anticline as a geological matter, but there was no question as to its being oil land. The oil possibilities of the Elk Hills was not mentioned, and I did not consider them myself as oil territory. The indications at that time were, that from this sharp anticline, there was practically no chance of an extention of the oil field in that direction. The sharp anticline I have mentioned is shown on the map just in evidence. It runs through sections 12 and 13 in 30 - 21, and through 10, 19, 20, 29, 27 and 34 in 30 - 22, and 2, in 31 - 22.

On my trip to the Chanslor & Canfield camp on November 21, 1902, I observed that they were drilling down there on two or three sections, and there was a well being drilled on the south half of section 5 in 32 - 23. The Southern Pacific owned only the north half of that section. I don't remember of any other drilling in there.

From Oil City I went to Los Angeles, looked over the oil fields around Los Angeles, then went to Summerland, and then through the Lompoc and Santa Maria fields to Watsonville, to Sargent — and took in all of the coast fields, and returned to San Francisco on November 28th, where we remained until the 30th, when Mr. Treadwell and I went to Coalinga and went over the territory there, including the company's leases as far north as the old Oil City property; and the next day we went to Alcalde, and

then back to Fresno and San Francisco, arriving in San Francisco on the 3rd. [2350]

I made a brief report of these trips to Mr. Kruttchnitt on December 4, 1902.

At this time a copy of the report mentioned was introduced in evidence and marked Defendant's Exhibit 117, and read into the record as follows:

"Oil Territory. (In pencil:) California C.T.D. (4)

San Francisco Dec. 4th, 1902

J. Kruttschnitt, Esq.,
Asst. to the Prest., City.

Dear Sir:—

Present developments in the San Joaquin Valley indicate clearly that there are at least two distinct series of oil beds. The first and lowest of these follows the mountain slopes that form the eastern, southern and western boundary of the valley. The eastern slope has not yet proved productive, but on the western side we have thee Sunset, Midway, McKittrick, Temblor, Antelope, Kreyenhagen, and Coalinga fields belonging to this series.

The Company's lands in the vicinity of Sunset just touch the oil field as now recognized. At Midway they enter it, and from there north we have our share of what there is of this belt. I believe we will have good territory in the vicinity of Sunset and Midway and with that at Coalinga probably enough for all our purposes.

The second series, of which Kern river is at present the only representative, lies out in the valley, and

are basins of nearly horizontal structure. We now know of other indications in the valley which are apparently as [2351] favorable as those of Kern River and I think we will certainly find others when we are better acquainted with the region and its conditions.

So far as can be all of these lands are now reserved from sale.

I propose to take up their examination in a systematic way during the coming year in order to determine as far as can be done from surface indications and geological structure where oil is to be expected in this region, with especial reference to deposits in our own lands. So far as I can judge from the trip I have just made over this territory, this work promises results of greatest value to the Company.

Yours very truly"

I left San Francisco for Houston, Texas, on December 5th, 1902, and did not return to California until March 18, 1903, after which I opened an office, and took active charge of the oil operations of the Southern Pacific Company. I assumed full direction of the work in the field, the drilling of wells, and the handling of all operating matters. Mr. Treadwell was at Oil City at that time, but was assigned to other work. Mr. Harriman sent him to Alaska to look up oil and coal for him up there. At that time Mr. Owen was working under me and had charge of the oil fields. I think I appointed him superintendent of oil operations, oil production. I may have received a few

written reports from him after I opened an office in San Francisco, but Mr. Owen was not a man who made many written reports. He always reported verbally as to his oil operations. I **[2352]** recognized the letter purporting to be dated March 25, 1913, and appearing in the record in this case in connection with the testimony of Edwin Owen, as a copy of the one received by me from Mr. Owen. There was a map accompanying that letter when I received it, and I have a copy of that map.

I cannot give all of Mr. Owen's movements between the time he came from Oregon to California oil fields in September, 1902, and February 3, 1903. He had a number of things to look up, but in January he was in Nevada looking up some supposed coal deposits, and after that he made a trip down to the Central Oil Company's property near Whittier, and reported on that. The statement contained in the letter referred to accords with my recollection as to the time I began work in the McKittrick fields, and is borne out by copies of correspondence which I have seen.

After I received the letter of March 25, 1903, referred to above, I made a trip with Mr. Owen into the California oil fields, and spent March 30, 31 and April 1st in the Kern River field, and from there went to McKittrick the next day, where we examined the property around the south end of the drilling, the south end and north end of McKittrick—the Company's own work of which I had just taken charge; on the 3rd, Mr. Owen and I studied—I went over the geology and studied it with him, taking the country south of

McKittrick, as far south as the Crocker Springs. On the 4th we drove north of McKittrick to a saddle in the mountains, which Mr. Owen thought might represent axis of the anticline passing in that way. We returned to McKittrick and Kern River that evening. I was nowhere near the Elk Hills on that trip, and have never been in the **[2353]** Elk Hills. On the next day I returned to San Francisco, where I remained until April 11, 1913, where I was to look after the operation of the oil leases that had been given by the railroad company, to see that the lessees complied with the terms of their leases, and also to look after the payment of the royalty oil to the company. No leases were granted except under my approvoal.

I employed Mr. Frank M. Anderson as a geologist for the company on March 23, 1903, and I think he came early in April, 1903 to begin work for me. He continued to work under me until, I believe, in 1912. It was my custom to make an inspection trip through the fields each time I came to San Francisco if I was there for any length of time. I went to the oil fields on June 2, 1903. I suppose Mr. Owen went with me on this trip, but cannot say positively. I was in Oil City on the 3rd and 5th of June, at McKittrick on the 6th and 7th, and arrived in San Francisco on the 8th. There was no discussion between Mr. Owen and myself as to the Elk Hills that I remember of. Those trips were largely concerned in the operations. I recognized the paper handed me as a carbon copy of a letter I wrote to Mr. Owen on June 11, 1903.

The copy of the letter just mentioned was introduced in evidence, and marked Defendant's Exhibit 118.

The witness continuing, testified as follows:

I know the company called the Kern Trading & Oil Company. It had just been incorporated at the time I wrote the letter mentioned. Prior to writing that letter I had **[2354]** consulted Mr. Kruttschnitt. That consultation was in regard to the formation of the K. T. & O. Company, and this letter was written to Mr. Owen in order to get his ideas of what lands should be included — should be taken over by that company. I received replies to that letter from Mr. Owen at two different times: one was in the form of a map showing the lands under those headings in the McKittrick fields, and the other was a similar map of the Coalinga field. There was no letter accompanying the McKittrick map, but there was a letter accompanying the Coalinga map.

I left San Francisco on June 11th and arrived at Houston, Texas, on the 15th, and did not return to San Francisco until October 31st, 1903. I saw Mr. Kruttschnitt on that day.

The first knowledge I had of the formation of the Kern Trading & Oil Company was obtained from the newspaper which I saw in Oil City, I think on the trip I made in May of 1903. I think I had knowledge prior to that time that such a company was in contemplation. The Rio Bravo Oil Company was formed March 2, 1903, and in my talk with Mr. Kruttsch-

nitt upon my return, it was decided that the California operations should be put in a similar company, but had nothing to do with the organization of it, and the first I actually knew of its organization was a notice in the paper.

After the company was organized Mr. Kruttschnitt placed in my hands the examination of all of the lands that were to be turned over to that company. I determined that the lands which we believed to be oil lands, owned by the Southern Pacific Company, and also lands or oil lands which **[2355]** had been bought by Mr. Treadwell for the Southern Pacific Company, should be turned over to the K. T. & O. Company. That included other lands than those which were actually developed by wells. The company owned everything that we thought at that time would be capable of producing oil commercially; I don't mean capable of producing oil commercially at that time. Most of the land was quite a way from any producing wells, and it was taken up with the idea of furnishing the Company with oil for a long period.

On September 21st, 1903, after I had begun work in connection with the Kern Trading & Oil Company, and after the consultation I had with Mr. Kruttschnitt which I have mentioned, I wrote him fully in the letter or report of that date. The copy of a letter just handed me is a carbon copy of the original of that letter, which was sent to Mr. Kruttschnitt.

When I refer to lands belonging to the Southern Pacific Company as considered valuable for oil purposes, I mean the Southern Pacific Railroad Company. The Southern Pacific Company owned only two or three small plots at McKittrick, and the other lands were Southern Pacific Railroad Company lands.

The letter just mentioned refers to California lands. I had the copy of it from my Houston office. Carbon copies of all reports and letters were sent from one office to the other, but sometimes the letters which came to me, letters to which they were replies, were not copied and sent to the other; part of them have reference simply to the California fields. The Houston office files did not possibly **[2356]** contain complete correspondence relating to California land matters, but they were practically complete since March, 1903. It was my aim to have them complete.

A copy of the letter above referred to was introduced in evidence, marked Defendant's Exhibit 119, and read into the record as follows:

September 21, 1903.

Mr. J. Kruttschnitt,

Assistant to President, San Francisco.

Dear Sir: The following suggestions are offered for your consideration regarding the operations of the Kern Trading & Oil Company:

Relation to the Southern Pacific Company.

The Kern Trading & Oil Company should be the

medium for handling all the fuel oil business of the Southern Pacific Company until the oil is loaded into the cars, at which time it passes into the hands of the Southern Pacific Company proper.

Property.

In addition to the oil lands held for development and the stocks in California Oil companies owned by the Southern Pacific Company as mentioned in my letter of June 9th last, the Kern Trading & Oil Company should acquire by purchase or lease such lands now belonging to the Southern Pacific Company as we consider valuable for oil purposes. The attached maps show these under three heads: first, oil lands proven or practically proven, colored red; very probable oil lands, colored green; probable oil lands **[2357]** colored blue. Of the oil value of the first two classes there is very little doubt; the third depends in part upon the continuance of normal dips and conditions, but in addition, it represents untested anticlinals which show good indications of oil. I consider that all of these lands should be under the control of this Company.

The method of acquiring such property by the Rio Bravo Company was by issuing its stock to the Southern Pacific Company to cover valuation.

Stocks.

We would have proper representation in the directories of the various companies in which we are interested. I understand that at present our representa-

tion is confined to Mr. Treadwell and his son-in-law, Mr. Boynton.

Tanks and Pipelines

If the example of the Rio Bravo Oil Company is to be followed, as I think it should, this Company should take over the storage tanks, pipelines, and loading racks of the Southern Pacific Company at Kern River, McKittrick, Olig and Ora. This division of tankage separates your oil in storage from that at fuel stations, or available oil.

Operations.

After careful examination I see no reason to make any radical changes in the present manner of operating the Department, except to suggest that in order to carry out the scheme as it is in Texas, it will be necessary to have all oil received, tested and loaded, under the direction of this company. This is now done under Mr. Burkhalter's direction. I understand from Mr. Burkhalter that he will **[2358]** be very glad to be relieved of it. In addition to this the printing of a few blanks for which I have prepared copy is all that is necessary to complete the change in operations.

In accordance with your instructions to prepare the necessary circulars to put the Company into operation, I submit the following:

Circular:

"The Kern Trading and Oil Company has acquired the oil properties heretofore belonging to the Southern Pacific Company.

In connection with the development and oper-

ation of these properties the Kern Trading & Oil Company will assume charge of the general fuel oil business of the Southern Pacific Company.

All communications and reports relating to such business should be addressed to the Kern Trading & Oil Company, San Francisco."

Circular:

"Effective this date Mr. J. Owen is appointed Superintendent of the Kern Trading & Oil Company."

If these circulars meet with your approval, please write me and I will issue them at once. The other matters can be adjusted as you have time. Yours truly, D-R Enclosures."

The witness continuing, testified as follows:

The maps referred to in the letter were copies of the maps submitted to me by Mr. Owen showing the lands of **[2359]** oil possibilities, and they were sent with the letter of September 21st to Mr. Kruttschnitt. I found a map in my Houston files in connection with the carbon of the letter of September 21, 1903, which map I now hold in my hands. This map does not seem to be colored in the same way as exhibit 119. I am not positive by whom it was colored, but it was done either by Mr. Owen or Mr. Redfern, who was my secretary at that time. The lettering on it was done by Mr. Redfern. The lands that are represented on that map, take in the different colors, are the same lands that were on the original map, and with the exception of the variation in colors, it is a copy of the

map that accompanied my letter of September 21, 1903 to Mr. Kruttschnitt.

A copy of the map thus identified was introduced in evidence, and marked Defendant's Exhibit 120.

The witness continuing, testified as follows:

After writing the letter of September 31, 1903, I remained in San Francisco until October 6th of that year, when I went to New York, and on to Houston, where I arrived on the 23rd of October. I returned to San Francisco on November 5, 1903, and the first thing to which my attention was directed was in connection with outside matters. Mr. Treadwell was back from the Alaska trip and had those matters to take up; I also took up the Kern Trading & Oil Company matters.

On November 27th I was instructed to go to Bakersfield and meet Mr. Harriman and Mr. Huntington, and show **[2360]** them over the Kern River field. I was not in the fields before that during that month.

Mr. B. A. Worthington turned over to me reports of the consumption of oil on the road, of fuel on the road, "Locomotive Performance Sheets" I believe they call them, and on looking over them I saw that there could be such an immense saving by the use of oil in all divisions that I got the statistics together, formulated them in a letter for Mr. Kruttschnitt and sent it to him. The letter just handed me is a carbon copy of the letter to Mr. Knuttschnitt, which was dated November 10th, 1903.

The letter just referred to was introduced in evi-

dence, marked Defendant's Exhibit 121, and read into the record as follows:

(Continued on next page) [2361]

"Copy.

San Francisco, November 10, 1903.

Oil Development, California.

Mr. J. Kruttschnitt,

Assistant to President, City.

Dear Sir:

Believing that it is not only advisable, but absolutely necessary, to proceed at once with the proper development of our oil lands, I submit the following for your consideration:

Fuel Consumption

The report of locomotive fuel consumption for the month of September, 1903, shows that we had on the Pacific System, exclusive of the Sale Lake Division:

278 locomotives using coal;
54 " " wood;
431 " " oil.

The fuel consumption of these locomotives for the month was:

59,647 tons coal, costing	$236,518.83
293,858 bbls. oil, costing	115,087.91
Total	$351,606.74

Economy in use of Oil:

Had all of these locomotives been equipped as oil

burners, the difference in cost of fuel for this month would have been as follows:

Cost of coal, 59,647 tons	$236,518.83
" " " 238,588 bbls.	103,910.58
A Saving of	$133,608.25

[2362]

The Saving by Divisions would have been:

Coast	$ 54,708.94
Western	8,411.10
San Joaquin	776.88
Los Angeles	7,012.80
Tucson	16,381.60
Sacramento	31,120.45
Lines in Oregon	15,196.48
Total	$133,608.25

The total amount of oil for the month would have been 532,436 barrels,—about 17,000 barrels per day, or more than 6,000,000 barrels per year.

Oil Supply:

Amount of oil in tanks and under contract is as follows:

Oil in tanks, approximately	2,000,000 bbls.
33 & Imperial contract) 3 years to run)	7,000,000 "
Associated Oil Co.) 5 years to run)	10,000,000 "
Total	19,000,000 "

Provision would, therefore, seem to be made for about three years' supply of oil for all locomotives, or, if we hold a full year's supply in storage, as I most urgently recommend, there is a supply for only two years, at the end of which time other provisions must be made.

Price of Oil:

Our contracts call for 25 cents per barrel to the Associated and 30 cents to the 33 & Imperial, making an average cost to us for the 17,000,000 barrels of 27 cents. **[2363]**

If, then, we have ample oil lands and can produce oil for less than we can buy it, is it not to our interest to proceed with development in such a manner that there will be no further reason for purchasing oil from outside parties when present contracts shall have been completed. This cannot be done in a few months, but considerable time will be required to get the development necessary to meet our demands.

Our present production and royalties amount to about 4,000 barrels per day, leaving 12,000 to 13,000 barrels to be provided. While many of our wells may flow from 200 to 300 barrels when first brought in, a conservative estimate of all wells put down would be at the rate of 100 barrels. This means that to get the amount of oil necessary we may have to drill from 100 to 120 wells.

Judging from our experience in the past, it will take from two and a half to three years to get these down, and in operation.

In my opinion, this work should be begun now or not later than the first of the year. If it be left until later, it will have to be done with a rush that will not only add to the expense, but will prevent our giving it the careful oversight which it should have.

While it appears to me this is sufficient reason for proceeding with our work, there is another and, in my opinion, a still stronger one, demanding this development. This development is absolutely necessary to protect our lands from drainage through wells now down and others being drilled along the side lines of our various properties. **[2364]**

Cost of Production:

The only statistics I have for cost of producing oil from our land cover a period of 21 months beginning with January, 1903. These give for total cost of development and operating the following:

January, 1902, to June, 1902 .....25.2c per bbl.
July, 1902, to June, 1903 .....23.6c " "
July, 1903, to September, 1903....20.0c " "

With systematic development and increased output, this cost will be materially lessened, and I am confident that I can bring it down to 16 cents, if not lower.

Oil Property:

The Company has the following oil property which may be classed as 'fully proven':

Kern River	420 acres
McKittrick	1280 "
Coalinga	3840 "
Total	5540 "

Of the Coalinga land, 1600 acres is now under lease to various parties, with royalties varying from one-eighth to one-fourth.

In addition to the above, we have in the three fields named 14,000 acres of 'very probable' oil land, and as much more that we class as 'possible' oil land.

I believe that a very conservative estimate of actual productive oil land owned by the Company would give us 10,000 acres.

We, therefore, have oil deposits amply sufficient to supply all possible wants of this Company indefinitely. **[2365]** Part of the oil that we are buying to-day is derived from our own land in this way, and, unless we proceed to protect ourselves and get our proportion of the oil from our property, our neighbors will drain it to a very considerable extent.

Finally, the strongest reason which I present is that with which I started, viz.: the absolute money saving from use of our own oil.

If, by substituting oil for other fuel at present price, you can save $1,600,000. per year, and if, by producing your own oil, you can further save ten cents per barrel on 6,000,000 barrels, you have an economy of $2,200,000 per year as against present cost of operations.

This result can be obtained by the expenditure of not exceeding $750,000, say $30,000 per month during the next two years. This is a sum much less than the value of the oil we will deliver during the period.

I, therefore, ask that I be permitted to proceed with the development of the property.

D-R Yours truly,"

The witness continuing, testified as follows:

When I spoke in this letter of the "proper development of our oil lands," I referred to oil lands in which the Southern Pacific Company was interested, including both granted lands and other lands which the Southern Pacific Company owned at that time in the vicinity of McKittrick.

In that letter I gave the acreage of the various **[2366]** fields: "Kern River 420 acres, McKittrick 12,280 acres, Coalinga 3,840 acres, as 'fully proven' land." I have a memorandum in my dairy taken from the letter showing these particular acreages. I simply abstracted that letter for my own convenience in my dairy.

The letter mentioned above also contains the statement that, "In addition to the above, we have the three fields named, 14,000 acres of 'very probable' oil land, and as much more than we class as "possible' oil land." I made a segregation of the different fields under that head and have it here in my dairy. There is nothing to indicate when I made that segregation except that it is the first thing in my book amongst

the data that I have transferred to this book for my use during the year 1904.

At that time I made a segregation of lands in the McKittrick district, as follows: Proven 1280; probable 7840; possible 11580. My recollection is that this statement represents the amounts that were on the map that Mr. Owen submitted, and this amount —the figures in the letter, the large totals say fourteen thousand straight; they are merely aggregates. The letter I referred to was made up from that memorandum; I just stated in a general way what it was. The acreage may not agree exactly with them; I mean the acreage given of the "very probable" and "possible" were probably different from the figures I have given here.

I had a conference with Mr. Kruttschnitt the day the letter was written, and was instructed to take the **[2367]** matter up with Mr. Eberlein and ascertain how these matters should be transferred, and I wrote to Mr. Eberlein on the subject on November 13, 1903.

A copy of the letter above referred to was introduced in evidence and marked Defendant's Exhibit 122, and read into the record as follows:

November 11, 1903.

Mr. Charles W. Eberlein,

Acting Land Agent, S. P. R. R. Co., Building.

Dear Sir: In connection with the organization of the Kern Trading & Oil Company Mr. Kruttschnit desires me to take up with you the matter of transfer to this Company by purchase or lease of such oil

lands as we have selected now belonging to the Southern Pacific Railroad Company.

I hardly know how to arrive at any proper valuation of these lands. Would it not be best to take the land in large bodies at some fixed price, rather than to select simply what we suspect may be oil land? For instance, we might take all lands now owned by the S. P. R. R. Co. in the following townships:

Township 30, south, Range 22,
" 31, " " 22,
" 31, " " 23,
" 31, " " 24,
" 32, " " 23,

and sections 3, 5, 11, and 13, in Township 32, South, Range 24. **[2368]**

All of Township 19, south, range 15 east,
" 20, " " 14 "
" 20, " " 15 "
" 21, " " 14 "
" 21, " " 15 "

In addition to this there would be the 420 acres of Section 3, Township 29, South, Range 28 East, as it is important that this matter should be put in shape at once, I would be glad to confer with you on the subject at your earliest convenience.

D-R Yours truly,"

The witness continuing, testified as follows:

Under instructions from Mr. Kruttschnitt I took the matter of turning these lands over to the Kern Trading & Oil Company up with Mr. W. F. Herrin.

I wrote him a letter telling him what Mr. Kruttschnitt desired. Mr. Owen and I decided on a list of lands that were to be transferred to the K. T. & O. Company. That list was made in accordance with the map Mr. Owen had submitted which has already been introduced in evidence.

On November 20th I wrote Mr. Kruttschnitt concerning the land that is to be taken over from the Southern Pacific Company and the Southern Pacific Railroad Company.

The letter above referred to was intorduced in evidence, marked Defendant's Exhibit 123, and which reads in part as follows: **[2369]**

San Francisco, Cal.
November 20, 1903.

Mr. J. Kruttschnitt,
Assistant to the President, City.

Dear Sir: In compliance with your instructions I hand you herewith statement of property to be taken over by the Kern Trading & Oil Company from the Southern Pacific Company and the Southern Pacific Railroad Company, in accordance with suggestions of my letter of September 21, 1903.

Stock and Lands:

The values of the stocks and lands as given are their cost as shown on the Books of the Southern Pacific Company:

Improvements:

The total cost of oil development from its beginning to October 1, 1903, was $223,528.74; balance

of profits from operations, $259,990.40, so that total amount charged to development has been more than wiped out by the profits. I have, therefore, estimated improvements at as near present value as possible.

Wells:

In estimating value of the wells I have used cost of equipment only on all the wells drilled prior to January 1, 1903. For those drilled since January 1st, have used actual cost.

Tanks and Pipelines:

Having no knowledge of exact cost of pipelines and loading racks, I have estimated their present value as nearly as possible. The price of tanks is placed at what I understand they cost the Company. **[2370]**

Lands from S. P. Company.

Prices on all lands are left for your determination:

Of these lands the following have wells on them, and are, therefore, proven:

Kern River,	420 acres,
Coalinga,	1,800 "

The following lands adjoining the above are also proven by these wells:

Coalinga,	1,440 acres

We consider the following quite certain to produce oil:

McKittrick,	960 acres,
Midway,	360 "
Coalinga,	600 "

The remainder of the land included in this list, 29,780 acres, is unprospected, and is, therefore, sim-

ply probable oil land, which, from our investigations, we believe will prove valuable.

I believe that this gives you all of the information asked for in this connection.

D-R Yours very truly,"

(Accompanying this letter, and referred to in it, was a statement or list of the lands to be included in the transfer.)

The witness continuing, testified as follows:

I remained in San Francisco until November 27, 1903, when I went to Bakersfield, to Oil City, to meet Mr. E. H. Harriman, Mr. Wilcox and Mr. H. E. Huntington. I think Mr. Wilcox was one of the directors at that time. **[2371]** I showed them over the Kern River oil field. We went through our own section 3 and showed them the way we were managing the work there, and then we went up through thirty-three, and the Imperial, and on on over some of the Associated Oil Company's property. I don't remember all of the properties we went over, but it was just a general view of the field that I gave them. I was not in McKittrick with those men at that time. There was two discussions concerning that trip concerning the Elk Hills. I didn't know at that time that an application had been made for patent to certain lands in township 30-23 by Mr. Eberlein. I have not had any conversation with Mr. Eberlein, Mr. Stone, or anyone connected with the Land Department of the company concerning the selection and listing of those lands. No one in my office and under my direction

made any such suggestion to Mr. Eberlein or Mr. Stone to my knowledge. I did not give any such directions to anyone, had had no communication with Mr. Kruttschnitt or other officials of the Southern Pacific, the Southern Pacific Railroad Company, the Kern Trading & Oil Company, the Associated Oil Company, by letter or otherwise, with reference to selecting lands in the Elk Hills. The lands in township 30-23, in the Elk Hills, were not applied for by Mr. Eberlein as the result of any recommendation or suggestion mad by me to anybody.

The lands in township 30-23 had never entered into my mind as oil land at all. The conditions around McKittrick all seem to me to preclude the possibility of oil occurring that far away from the outcrop. **[2372]**

I was in San Francisco until the 12th of December, 1903, when I left for Houston, where I remained until January 20, 1904, when I returned to San Francisco accompanied by my family. We came over the regular route from Houston to San Francisco, did not pass through Bakersfield or the Kern River field. I did not, during 1903 or 1904, in coming from Houston to San Francisco, pass through Bakersfield. I did pass through there on trips in 1901, and possibly in the earlier trips of 1902.

I have met Thomas J. Griffin. He did not accompany me from Houston to San Francisco on the trip of January 20, 1904.

On February 1, 1904, I wrote a letter to W. F.

Herrin, chief counsel for the Southern Pacific Company.

A copy of the letter above referred to was introduced in evidence, marked Defendant's Exhibit 124, and read into the record as follows:

February 1, 1904.

Kern Trading & Oil Company:
Mr. William F. Herrin,
Chief Counsel, City.

Dear Sir: Mr. Kruttschnitt instructs me to proceed with the matter of having the Kern Trading & Oil Company take charge of the oil business and requested me to consult with you as to the proper method for doing this and to arrange with you for drawing up the necessary papers ready for his signature. **[2373]**

I would be glad to consult with you at your convenience on this matter in order that it may be gotten into shape for him as soon as possible.

D-R Yours truly,"

The witness continuing, testified as follows:

On February 2, 1904, I wrote another letter to W. F. Herrin.

A copy of the letter above referred to was introduced in evidence, marked Defendant's Exhibit 125, and read into the record as follows:

February 2, 1904.

Mr. W. F. Herrin,
Chief Counsel, Building.

Dear Sir: I would suggest, in relation to the trans-

fer of the oil lands owned by the Southern Pacific Railroad Company to the Kern Trading & Oil Company, that the fairest method for both parties would be in the shape of a lease.

None of the lands in the McKittrick, Midway, and Sunset districts, and only a part of those in the Coalinga district, have been actually proven by wells, and, while we believe that there is a strong probability that all of the lands here mentioned will produce oil, it will require drilling to make this certain.

I doubt if the Railroad Company would care to dispose of these lands at the price of ordinary lands, even if it were proper under the circumstances to ask them to do so. If we can take them over in the shape of a lease so that they will be under our control, the Railroad Company will receive its proportion of any oil produced. **[2374]**

I would suggest that a royalty of one-tenth in the McKittrick, Midway, and Sunset districts would be proper, and the same royalty would also properly apply to all of the Coalinga district except Sec. 31, T. 19 S., R. 15 E., Secs 1. 13, 23 and 25, T. 20 S., R. 14 E., and Sec. 7, T. 20 S., R. 15 E.

As leases already exist on the sections enumerated above, we would have to take over the leased portions of these sections in accordance with such contracts, but I think the royalty on the unleased portions of the sections should be enough lower to permit the K. T. & O. Co. to handle the matter with some profit to itself, as compensation for attending to the business of the R. R. Co. Up to this time we have done the

work without any charge to the Southern Pacific Railroad Company.

I understand that the four-hundred-twenty-acre tract in section 3, T. 29 S., R. 28 E., Kern River field, now being operated by the Southern Pacific Company belongs to the Southern Pacific Railroad Company, and that there has never been any agreement between the companies in regard to its operation, now has the Southern Pacific Company paid the Railroad Company any royalty on oil produced. All the other lands in that region were sold at a very low figure. Whether to take this under lease or to purchase it outright is a matter for discussion.

D-R Yours very truly,"

The witness continuing, testified as follows:

On February 12, 1904, I wrote another letter to Mr. W. F. Herrin. [2375]

The letter above referred to was introduced in evidence, marked Defendant's Exhibit 126 and read into the record as follows:

"February 12, 1904.

Mr. Wm. F. Herrin,
Chief Counsel, Building.

Dear Sir: Mr. Kruttschnitt is after me in regard to matters submitted to you February 1st and 2nd in connection with the Kern Trading & Oil Company, and asks that I get the papers to him as soon as possible.

Will you please take this up at your early con-

venience in order that I may be able to comply with his request?

D-R Yours very truly,

The witness continuing, testified as follows:

On February 19, 1914, I wrote Mr. Eberlein as follows: "I have just read your letter of February 19th to Mr. Kruttschnitt in regard to the lands to be taken and the statement as there made covers all the land that I think it necessary to take in this connection at this time."

This letter was introduced in evidence and marked Defendant's Exhibit 127.

The witness continuing, testified as follows:

I don't know where the letter of February 29th to Mr. Kruttschnitt, mentioned in my letter of that date to Mr. Eberlein, is at this time. I will say in reference to the lands referred to in that letter that the only lists I know **[2376]** of are the ones transmitted to Mr. Kruttschnitt.

On March 11, 1904, I received a letter from Mr. Wm. F. Herrin, dated March 10, 1904.

The letter above referred to was introduced in evidence, marked Defendant's Exhibit 128, and read into the record as follows:

William F. Herrin, Chief Counsel,

San Francisco, Cal., March 10, 1904.

Subject: TRANSFER OF OIL PROPERTIES TO KERN TRADING & OIL CO.

Prof. E. T. Dumble,

Consulting Geologist.

Dear Sir:

Referring to your letter of February 12th ult., I have prepared and herewith enclose drafts of the following instruments, viz:

Deed—Southern Pacific Company to Kern Trading & Oil Company.

Bill of Sale—Southern Pacific Company to Kern Trading & Oil Company.

Oil Lease—S. R. R. R. Co, to Kern Trading & Oil Company.

These will operate to vest the described premises, both real and personal, in the Kern Trading and Oil Company.

The stocks mentioned by you, in the Buena Vista Petroleum Company, Union Land & Oil Company, and Reward Oil Company, desired to be transferred to the Kern Trading & Oil Company, will be transferred to the Kern Trading & Oil Company, will be transferred by endorsement and delivery of **[2377]** the stock, and transfer upon the books of the respective companies.

With reference to the operation of the Reward Oil Company's property, I think it could be better worked, under the restrictions of the contract of May 22nd, 1903, between the Associated Oil Company and the Kern Trading & Oil Company, and the Southern Pacific Company, if a purchase of the property of the Reward Oil Company were made by the Kern Trading & Oil Company.

I shall be glad if you will examine each of the

documents enclosed, and suggest any changes that may appear necessary, so that they can be submitted to Mr. Krutchnitt at an early day after his return.

Yours truly,

Wm. F. Herrin

(Rubber stamp) (in pencil)

The witness identified the carbon copy of the letter written by him on March 11, 1904, and addressed to Wm. F. Herrin, which was marked Defendant's Exhibit #129, and read into the record as follows:

Mr. Wm. F. Herrin,
Chief Counsel, City.

Dear Sir: I have examined the papers send down in the matter of the Kern Trading & Oil Company, and I know of no change to be made except in the bill of sale which should be made to include the following items which have been constructed since the original list was made: **[2378]**

1, 55,000 bbl. tank at Oil City, making 8 in all,
Pipeline between Coalinga and Ora,
Pump station at Coalinga,
1, 10,000 bbl. tank at Coalinga.

D-R Yours truly,

The witness identified a carbon copy of a letter written by him on March 15, 1904, to Mr. Kruttschnitt, which was introduced in evidence, marked Defendant's Exhibit 130, and read into the record as follows:

Mr. J. Kruttschnitt,
Assistant to President, City.

Dear Sir:

Enclosed I hand you papers prepared by the Law Department for transfers to the Kern Trading & Oil Company, as follows:

Deed,—Southern Pacific Co. to Kern Trading & Oil Co.

Bill of Sale,—Southern Pacific Co. to Kern Trading and Oil Co.

Oil Lease, S. P. R. R. Co. to Kern Trading & Oil Co.

D-R Yours very truly,"

The witness identified a letter written to him by Mr. Kruttschnitt, on March 17, 1904, which was introduced in evidence, marked Defendant's Exhibit 131, and read into the record as follows:

Mr. E. T. Dumble,
Consulting Geologist,
San Francisco, Cal.

Dear Sir: Referring to your communication of March 15th on **[2379]** the subject of transfer of properties to the Kern Trading & Oil Company, would ask that you kindly have a blueprint descriptive of the property in question attached to each of the documents herewith returned.

I would ask that in future a descriptive blueprint

be attached to each copy of deed, agreement, etc., where it is possible to do so.

Yours truly,
(In pencil) J. Kruttschnitt
G L K

The witness identified a letter written by him to Mr. Kruttschnitt on March 17, 1904, which was introduced in evidence and marked Defendant's Exhibit 132, and read into the record as follows:

Mr. J. Kruttschnitt,
Asst. to Pres., City.

Dear Sir: I have arranged with Mr. Klink for the printing of the necessary blanks for the Kern Trading & Oil Co.

In the Rio Bravo Company Mr. Segar is named as Secretary, and to carry out the scheme here it would be necessary to put Mr. Klink's name in as secretary, but, if you prefer, the same result may be reached by naming him Auditor of the Company. As you will see from the attached blank, the names of the officers are given on the letterhead, and I thought I would call your attention to it before these were printed in order that this change may be made in you think proper to do so.

D-R Yours truly," [2380]

The witness identified a letter written by him on March 21, 1904, to G. P. Klink, Auditor of the Southern Pacific Company, which was introduced in evidence, marked Defendant's Exhibit 133, and read into the record as follows:

Mr. G. T. Klink,
Auditor, Building.

Dear Sir:

Mr. Kruttschnitt writes me under date of March 18th to put your name upon the letterhead of the Kern Trading & Oil Company as Auditor. Will you please have this inserted when the proof is brought in?

D-R Yours truly,"

The witness continuing, testified as follows:

The only maps I remember Mr. Treadwell having were maps of the recognized oil fields, such as those made by Barlow & Hill. He had a map of the Kern River and probably of McKittrick, of their make on the walls, and he also had copies of a map which you will find included in Watts' report showing the stratification at Summerland as brought out by the wells that he drilled there on the S. P. wharf, as it is called.

By "Watts' report", as mentioned above, I mean the one of 1889 or 1900. It has an engraving in it of the Summerland wharf. Mr. Treadwell was busy at the time I was there in making a similar sketch or geological section of the maps at Kern River,—of the wells at Kern River. **[2381]** Those, I mean, on section 3. I had him make me copies of those sections as he had them at that time and somewhat later. There was no other map that I remember of in his office, and if there had been a map that would show anything in regard to the oil field, I would certainly have found it out.

The witness here identified a copy of a letter written by him on March 21, 1904, addressed to Mr. J. Kruttschnitt, which was introduced in evidence, marked Defendant's Exhibit 134, and read into the record as follows:

Mr. J. Kruttschnitt,

Assistant to the President, City.

Dear Sir: I am arranging to begin operations according to plans outlined, on April 1st, and suggest that Mr. Stevenson and Mr. Burkhalter be advised that after that date the receiving, handling, and loading of Company oil at Oil City, McKittrick, Olig and Ora, will be under my charge.

I will ascertain from them just what reports they used to enable them to handle their portion of the business satisfactorily and will arrange to give them to them promptly.

D-R Yours truly,

The witness continuing, testified as follows:

The Mr. Stevenson mentioned in that letter was either the purchasing agent or the chief clerk of the purchasing agent of the Southern Pacific Company at that time, [2382] and Mr. D. Burkhalter was superintendent of that company at Bakersfield.

The witness here identified a copy of a letter written by him on March 23, 1904, to J. Kruttschnitt, which was introduced in evidence, marked Defendant's Exhibit 135, and read into the record as follows:

Mr. J. Kruttschnitt,

Assistant to the President, City.

Dear Sir: As I expect to leave Friday night, would it not be advisable to have a meeting of the Kern Trading & Oil Company, in order that matters might be finally arranged in accordance with the plans we have outlined?

D-R Yours truly,

The witness continuing, testified as follows:

On February 29th, 1904, I made an inspection trip to the oil fields and returned March 6, 1904. I made the regular rounds of the oil fields for the purpose of getting at the distribution of accounts that were to be put in in connection with the oil work. I obtained dates of this trip from a book I now hold in my hand which was used for my field work and memorandums in the field from June, 1903, to December, 1905. Mr. Owen usually accompanied me on such trips. I have no independent recollection at this time who was with me, or whether Mr. Owen was with me, outside of the general thought. Thomas J. Griffin did not accompany me during that trip or any part of it.

After returning to San Francisco from that trip I **[2383]** remained there until March 25, 1904, when I went to Houston, and did not return to San Francisco until April 25th of that year. I then remained in San Francisco until May 5, 1904. On April 13, 1904, I was in Houston, Texas. On April 14, 1904, I received a telegram at Houston from my office. This telegram was addressed to me, and my name was signed to it by someone in my San Francisco office, which was the practice in that office even though I was not there when such telegrams were signed.

The telegram referred to was introduced in evidence, marked Defendant's Exhibit 136, and read into the record as follows:

E T D

Mr. Kruttschnitt asks reply to letter of March seventeenth on subject of transfer of properties to the Kern Trading and Oil Co.

The witness then identified a carbon copy of a telegram dated April 14, 1904, as a copy of his reply to the telegram mentioned above which was introduced in evidence, marked Defendant's Exhibit 137, and read into the record as follows:

Transfer Kern Trading & Oil Company property: Have been unable to get all of blue prints asked for in McKruttschnitt's letter of March seventeenth. After getting part of them the Law Department sent new forms of deed which necessitate further changes. Will answer as soon as possible. **[2384]**

The witness continuing, testified as follows:

On April 29, 1904, I was in San Francisco, and on that date I dictated and signed a letter and sent it to Mr. Kruttschnitt, and recognized the paper handed me as a copy of that letter.

A carbon copy of this letter was sent to Charles H. Markham, who, as I recollect, had just been appointed General Manager of the Pacific System, including the Southern Pacific Company. As to whether he was at that time President of the Kern Trading & Oil Company, I cannot say whether the transfer had then been made or not.

Thereupon the letter just referred to was introduced in evidence, marked Defendant's Exhibit 138, and read into the record as follows:

Mr. J. Kruttschnitt,
Director of M. & O., City.

Dear Sir: I hand you herewith triplicate copies of oil lease between the S. P. R. R. Co. to Kern Trading & Oil Co., bill of sale, Southern Pacific Co. to Kern Trading & Oil Co., deed from Southern Pacific Company to Kern Trading & Oil Co., assignment of lease, Southern Pacific Co. to Kern Trading & Oil Co., which have the forms approved by the attorneys, and accompanied by blueprints showing location of the property transferred.

The delay in this matter has been caused by changes in forms of the instruments. There is still lacking transfer of the Summerland property for which I have not been able to get the requisite data for plot showing the location of the [2385] property. Neither Mr. Ryan or Mr. Treadwell can furnish anythign definite concerning this, and I now have the matter up with the attorneys in Santa Barbara from whom I hope to get the data.

D-R Yours very truly,

The witness then identified a copy of a letter written by him to Mr. C. H. Markham on May 3, 1904, which was introduced in evidence and marked Defendant's Exhibit 139, and reads as follows:

Mr. C. H. Markham,

General Manager, Southern Pacific Co., City.

Dear Sir:

The preliminary organization of the Kern Trading & Oil Company was had sometime ago, but in view of the fact that the President, Mr. Kruttschnitt and one of the Directors, Mr .W. A. Worthington, are leaving for Chicago, it would be well to have a meeting before they get away, in order to re-organize the Company under the lines laid down by Mr. Kruttschnitt.

I call your attention to this in order that it may be taken up at your convenience.

D-R Yours truly,

The witness then identified a copy of a letter written by him to C. H. Markham on May 13, 1904, which was introduced in evidence, marked Defendant's Exhibit 140, and read into the record as follows:

[2296]

Mr. C. H. Markham,

General Manager, S. P. Co., City.

Dear Sir:

The information asked for by Mr. Kruittschnitt in regard to the Kern Trading & Oil Company as nearly as I can give it to you is as follows:

Names of Directors and number of qualifying (in ink) shares held by each:

C. H. Markham,	10 shares
J. E. Foulds,	10 shares
J. L. Willcut,	10 shares
J. H. Wallace,	10 shares
E. T. Dumble,	10 shares

Number of shares held by S. P. Co. and number of certificates: (To be got from Mr. Willcut)

List of Property Conveyed:

1.	Real Estate, Summerland,	$7,000
2.	" " McKittrick,	320,000
3.	Foltz lease,	5,000
4.	Improvements Kern, McKittrick, Coalinga, Summerland, and Casmalia,	126,000
5.	Tanks, pipelines, and loading racks,	244,000
	Total,	702,000

D-R Yours truly,

The witness identified a copy of a letter written by him on May 30, 1904, to C. H. Markham, which was introduced in evidence, marked Defendant's Exhibit 141, and read into the record as follows:

Mr. C. H. Markham,
President, San Francisco, Cal.

Dear Sir:

Answering your letter of May 21st, in regard to Kern Trading & Oil Company matters: [2387]

Mr. Kruttschnitt accepted the letter as written and instructed me to arrange for the transfers of the property and all other matters in accordance therewith. This has all been done, and the transfer papers are with your or himself.

In regard to the representation in the Directory of the various companies, I am not fully informed,

but think that Mr. Willcut was put in, in Mr. Treadwell's place in one or two of the companies.

Everything else has been settled.

Yours truly,

The witness identified a letter written by J. L. Willcut, Secretary of the Kern Trading & Oil Company to him on May 20, 1904, which was introduced in evidence, marked Defendant's Exhibit 142, and read into the record as follows:

Prof. E. T. Dumble,

28 Converse Building, Houston, Tex.

Dear Sir: This will advise you that you were this day elected Vice-President of the Kern Trading & Oil Company, vice J. E. Foulds, resigned.

As I understand that for some time you have, under instructions, been acting practically in such capacity, I deem it but proper that you should at once be officially advised of your election.

Yours very truly,

(Signed) J. L. Willcut

Secretary. [2388]

The witness identified a copy of a letter written to him by C. H. Markham on May 31, 1904, which was introduced in evidence, marked Defendant's Exhibit 143, and read into the record as follows:

Southern Pacific Company

C. H. Markham, Genl. Mgr. San Francisco, Cal., May 31, 1904

Mr. E. T. Dumble,

Geologist, San Francisco, Cal.

Dear Sir:

Referring to conversation with Mr. Kruttschnitt when he was last here, and to your letter of May 13th, beg to say that I am just in receipt of a letter from him approving plan for transferring certain property to the Kern Trading & Oil Company in exchange for stock certificates Will you kindly push the matter to a conclusion.

Yours truly,

C. H. Markham.

The witness recognized the copy of a letter written by him to C. H. Markham on June 2, 1904, which was introduced in evidence, marked Defendant's Exhibit 144, and read into the record as follows:

Mr. C. H. Markham,

General Manager,

San Francisco, Cal.

Dear Sir: Your letter of May 31st, in regard to trans-[2389]ferring properties to the Kern Trading & Oil Company in exchange for certificates :

Please be advised that deeds to all the property accompanied by blue prints showing locations, are in Mr. Kruttschnitt's hands, except that for Summerland properties, which were sent you on May 25th.

The papers are complete with the exception of the insertion of the consideration for which the deeds are made, and their completion, I suppose is a matter for the Secretary and President of the Company.

Yours truly,

The witness continuing, testified as follows:

On May 5, 1904, I went from San Francisco to Astoria, to examine the Deep River oil field. I don't know whether it is in Washington or Oregon. It is at the mouth of the river, anyway. I returned to San Francisco on the 11th of May.

The Kern Trading & Oil Company actually began operations in the field on the 1st of April, 1904. It took entire charge of the production and handling of oil of the company's property and the handling of the oil that had been purchased for the company's use until the time it was loaded on board the cars, in strict accordance with the program laid out in the beginning in the letter to Mr. Kruttschnitt. It began operations prior to the time the lease was executed.

By way of explanation more in detail as to how the business was carried on in the field from the time they [**2390**] started in with the work, I will say the organization was Mr. Owen as — I think first he was appointed acting superintendent — who had charge of all the production in all of the fields; then at the Kern River and McKittrick we had field foremen in charge of each lease. We were drilling wells both at Kern River and McKittrick and producing oil there. The company through their purchasing agent — the Southern Pacific Company, make that — the Southern Pacific Company through their purchasing agent was buying oil, and we attended to the receiving and testing of this oil for them.

By the use of the word "we", I mean the Kern Trading & Oil Company and its organization. We

took over all the men who had formerly been employed by the Southern Pacific Company in the same work. They were paid on the Kern Trading & Oil Company's pay-roll. The Kern Trading & Oil Company had letterheads at that time. They were letterheads with the name of the Company and the name of the President, Vice-President, Auditor, and probably the Treasurer. I don't know just what the fourth party was. The letterhead upon which Defendant's Exhibit 142 is written was not the wort of a letterhead the company had; this was Mr. Willcut's personal letterhead. The Kern Trading & Oil Company letterhead was printed, and entirely different from Mr. Willcut's letterhead.

There was no effort made at that time to keep the operations of the Kern Trading & Oil Company a secret, and they were not kept secret.

I returned to San Francisco on May 11, 1904, went to Santa Barbara on the 12th, and back to San Fran-[2391]cisco on the 13th, and left the next day for Houston, Texas, arriving there on May 17th. I remained in Houston until June 26th, reaching San Francisco on the 30th. I made a trip to the oil fields on July 6th. Was in Oil City or the Kern field on the 7th, Coalinga on the 8th and 9th, McKittrick on the 10th and 11th, and on the 12th I met Mr. C. H. Markham at Bakersfield, and showed him over the Oil City and McKittrick fields. At McKittrick we went over the property that we were operating there, showing him the fields generally — the producing fields. On the 13th we went to Coalinga and returned

to San Francisco that evening. I remained in San Francisco until July 27th. On July 22nd, 1904, I addressed a letter to W. F. Herrin.

The letter just referred to was introduced in evidence, marked Defendant's Exhibit 145, and read into the record as follows:

Mr. W. F. Herrin,

Chief Counsel, Bldg.

Dear Sir: I return herewith Bill of Sale of the Southern Pacific Company to the Kern Trading & Oil Company for the improvements in the oil fields. I find that there are only seven 55,000 barrel tanks at Kern River, instead of eight. When the list was submitted Mr. Burkhalter told me two were to be erected there, but it seems only one of them was put up.

A typographical error occurs on second page, which should read: [2392]

"6: Pipeline between Coalinga and Ora, and pumping station on Section 7, Coalinga oil field."

Since writing this the two earthen reservoirs have been practically completed and under date of July 21st Mr. Markham states that these should be transferred to the Kern Trading & Oil Company. One of these is at Kern River; the other on Section 7 of Coalinga oil field.

I asked Mr. Markham whether or not the transfer should be included in this instrument, and he instructs me to leave this matter to you.

Yours very truly,

The witness identified a copy of a letter written by him on July 26, 1904, to C. H. Markham, which was introduced in evidence, marked Defendant's Exhibit 146, and read into the record as follows:

Mr. C. H. Markham,

Vice-Pres. and Genl. Mgr., City.

Dear Sir: In compliance with your favor of July 12th, I herewith return to you the following papers with my approval as to description of property listed:

1. Deed from the Southern Pacific Company to the Kern Trading & Oil Company covering the NW¼ of the NW¼ of Section 19, Township 30 S., Range 22 E., M.D.M., forty acres, also the other property as described therein
2. Deed from the Southern Pacific Company to the Kern Trading & Oil Company of the Foltz lease covering offices and quarters, etc. etc., therein described.
3. Assignment by the Southern Pacific Company to the Kern Trading & Oil Company of the Foltz lease covering land in the McKittrick district.
4. Ten-year lease by the Southern Pacific Railroad Company to the Kern Trading & Oil Company covering [**2393**] land in Kern and other districts mentioned.

Yours very truly,

D-R (In pencil) E T D

Thereupon, the witness continuing, testified as follows:

The statement, "Description of property correct

E. T. Dumble", appearing on page 7 of Plaintiff's Exhibit YY, is in my handwriting, and I recognize the signature of C. H. Markham on the same page, as being his signature, as near as I remember it. The signature of William F. Herrin is correct.

I recognize this exhibit as being one of the papers I received from the Law Department referred to in the correspondence. I checked the description of the property contained in that exhibit with a copy of the list that I submitted to put into the lease, and they agreed. I believe this to be the paper which I approved. I obtained the descriptions of the lands contained in the lease from the maps submitted by Mr. Owen in response to my letter of July 11, 1903, heretofore referred to in my testimony. I did not have any consultation or conference with Mr. Eberlein, or with anyone in his office, concerning the preparation and the description of the lands in this lease.

I recognize the paper handed me as a letter written by me to Mr. C. H. Markham on September 19, 1904. The correspondence mentioned in the second paragraph of that letter are the same letters that have just gone into the files. Mr. Markham is still alive, and is in Chicago [**2394**] I suppose.

The letter of September 19, 1904, just referred to, was introduced in evidence, marked Defendant's Exhibit 147, and read into the record as follows:

File 4005

Mr. C. H. Markham, September 19, 1904.
V.P. & G.M., City.

Dear Sir: Replying to yours of September 15th and

returning letter from Mr. Eberlein of September 10th:

The lease in question was drawn up by Mr. Herrin's office and I submit herewith copies of correspondence regarding same.

As regards ownership of lands by the Southern Pacific Railroad Co. would say that all the lands included in this lease are shown as belonging to the Southern Pacific Railroad Co. on maps furnished me by the Land Department and now in my possession.

My understanding of the lease does not bear out the statements made by Mr. Eberlein in regard to its effect upon royalties of existing leases.

Yours very truly,

D-R (In pencil) E. T. Dumble.

Enclosure.

The witness continuing, testified as follows:

I have been unable to find the letter of September 15th mentioned in the foregoing letter, and I returned Mr. Eberlein's letter of September 10th.

Plaintiff's Exhibit KK, purporting to be a letter written by C. H. Markham to Charles W. Eberlein is, in a [**2395**] general way, as I remember, the letter I received from Mr. Markham with his letter of September 15th, 1904. Whether it is identical with it or not I cannot say after this length of time. I don't recollect the portion of the letter which said, "In addition to this there is a very urgent reason for delaying the execution of these papers. We have selected a large body of lands interspersed with the lands sought to be conveyed by this lease, and which

we have represented as non-mineral in character. Should the existence of this lease become known it would go a long way toward establishing the mineral character of the lands referred to and which are still unpatented. We could not successfully resist a mineral filing after we have practically established the mineral character of the land. I would suggest delay at least until this matter of patent can be adjusted." That statement is not in accord with the facts of the lease, and the lands that we included in the lease were all patented lands, and there were, so far as I know, no unpatented lands among them or interspersed with them in any way.

Since I made no reference to that portion of Mr. Eberlein's letter in my letter of September 19, 1904, introduced in evidence as Defendant's Exhibit 147 above referred to, I doubt as to its having been there; I don't think I could have written a letter with the facts before me as they were, based on such a letter as that, without especially replying to that point. The maps mentioned in my letter of September 19th, Exhibit 147, were the maps furnished me by Mr. Owen in 1902, being the first map introduced in connection [2396] with my evidence, and similar maps of Coalinga field which were given him at the same time.

After writing the letter of September 19th to Mr. Markham, I received maps from Mr. Eberlein. They were sent to me with his letter of October 8th. Accompanying that letter I received a map similar to Plaintiff's Exhibit UU, which is correct and repre-

sents the lands in the lease, and a copy of the one I received. Prior to receiving this letter of October 8, 1904, I had no information that I know of concerning the listing and selection of the lands in 30 - 23 involved in this suit; I have no recollection of ever having heard of it before this time. I didn't consider the lands embraced in that list were within the oil territory. I did not believe the oil territory extended outside of the lands selected from the enclosure of the Kern Trading & Oil Company lease. That lease includes section 31 in township 30 - 23. I included it because Mr. Owen had put it on his map as possible oil territory because of an anticline that ran through it. The anticline runs through the southwest part of it, is my recollection.

After my letter of September 19th in reply to Mr. Markham's letter of September 15th, I had some further communication concerning the execution of the Kern Trading & Oil Company lease. I think it was concerning the small matters that Mr. Eberlein pointed out, such as the town plat of McKittrick; two or three small tracts that were not owned by the S. P. R. R. Company were, I believe eliminated from the first list at the time it was put in, and the new list was submitted, I suppose — but really [2397] I am not certain about that.

I wrote the letter of December 7, 1904, addressed to W. H. Bancroft, which was introduced in evidence in this case as plaintiff's Exhibit SS. In regard to the statement in that letter that, "I have had a conversation with Mr. Eberlein and it seems for reasons

of policy regarding such unpatented lands that it will be best not to execute the lease of lands between the S. P. R. R. Co. and the K. T. & O. Co. at present", I will say I have very little recollection of it. It made little or no impression on me at the time. The only thing that is with me is that I talked the matter over with him, and simply in deference to his desire to ease the matter along, I wrote the letter to Mr. Bancroft. I personally couldn't see how our lease would interfere with his applications, but he thought so, and I deferred to his wishes.

The Kern Trading & Oil Company was operating just as if the least had been signed. It was in possession of all the lands named in that lease; were drilling wells where they wanted to, and receiving royalty oil from the other lessees, and turning it over to the Southern Pacific Company. They had been doing this since the 1st of April, 1904. The lease was to the operating end of it, a formal matter for the officials of the road to arrange. The execution or non-execution of that lease by him at that particular time would not make any difference in the operation of the new field. At the time I wrote that letter to Mr. Bancroft I did not believe that the execution or non-execution of that lease by him would have any effect one way or the other upon [**2398**] the operations of the Kern Trading & Oil Company in the field; that had everything to do with my acceeding to Mr. Eberlein's request to write that letter.

As to whether at a later time, after the fire of 1906, any other lease to the Kern Trading & Oil Company

was under consideration for the same or similar lands I will say that there was an inquiry made for that lease, the original lease, the one of 1904. I supposed it had been executed and was in Mr. Calvin's hands, who was then General Manager of the Southern Pacific Company, but which was not found. I made an effort to locate the lease, looked through my own files for even a copy of it, which I could not find, and wrote to Mr. Calvin for it, and he looked through his files, and wrote me in regard to it.

The witness here identified a letter written by him to C. W. Eberlein on March 15, 1907, which was offered in evidence, marked Defendant's Exhibit 148, and read into the record as follows:

Houston, Texas, March 15, 1907.

Mr. C. W. Eberlein,
Acting Land Agent,
San Francisco, Cal.

Dear Sir:

Mr. Seger sends me a copy of your letter to him of February 6th, 1907, denying any knowledge or information of any lease, agreement or understanding, made or entered into with the Kern Trading & Oil Co. for production [2399] of oil on the lands of the S. P. R. R. Co.

Let me call your attention to the following in order to refresh your memory.

Nov. 11, 1903, I wrote you that Mr. Kruttschnitt instructed me to take up with you the transfer to the Kern Trading & Oil Company, by purchase or lease, of certain oil lands belonging to the S. P. R. R. Com-

pany, giving you at the same time list of lands desired and asking for a personal conference.

Nov. 20, 1903, I submitted to Mr. Kruttschnitt full report covering this matter.

Feby. 1, 1904, Mr. Kruttschnitt instructed me to proceed with the matter in accordance with the terms already agreed upon and I submitted it to Mr. Herrin that he might prepare proper papers.

Feb. 19, you wrote Mr. Kruttschnitt suggesting that there might be other lands than those originally enumerated which it might be desirable for us to take over. I wrote you in reply the same date "the statement as made covers all the lands that I think it necessary to take in this connection at this time."

March 10, Mr. Herrin returned draft of instruments, including "Oil Lease S. P. R. R. Co. to K. T. & O. Co." covering these lands, which I transmitted to Mr. Kruttschnitt next day. A few changes were found necessary and the papers were finally transmitted to Mr. Kruttschnitt with blueprints showing location of lands, April 29.

Under date of March 31, 1904, Mr. Markham writes me that he is in receipt of letter from Mr. Kruttschnitt [2400] approving plan of transferring the property and asking me to push matters to a conclusion.

The papers again passed through the attorneys' office and finally on July 26th I transmitted to Mr. Markham with my approval as to description of property listed:

4: 10 Year Lease of S. P. R. R. Co. to K. T. & O. Co. Covering Land in Kern & Other Districts Mentioned.

Sept. 10, 1904, you wrote Mr. Markham regarding the proposed lease that there was an error in some of the lands listed and calling his attention to your understanding that the lease as written might reduce the royalties to the S. P. Co. on lands already leased. I replied under date of the 19th that the terms of lease did not bear this out or have any effect on existing leases which were taken over subject to original terms, and Mr. Markham wrote you on same date "I see no objection to going ahead with the original program of assigning to the Kern Trading & Oil Co. all of oil leases now outstanding."

The matter of differences in the land I took up with you personally and under date of October 8th, 1904, you sent me corrected maps showing exactly what lands were to be covered by the lease as drawn.

Early in December we had a further conference on the matter and you explained that you were rushing certain lands for final patent and that the immediate execution of the lease showing our idea of what were oil lands might interfere with you and we agreed to defer the execution until that danger was passed. On December 7, 1904, I wrote Mr. Bancroft explaining this and suggesting that the lease [2401] be held up temporarily, the papers having been approved by all concerned and being in the hands of the Management, I considered that I had nothing further to do with them.

In the meantime, however, under direct instructions from Mr. Kruttschnitt and Mr. Markham, the Kern Trading & Oil Co. on April 1st, 1904, took charge of the entire oil situation, including lands covered by this lease, and has operated under the terms of the understanding which was to have been put in legal form long ago.

Copies of most of this correspondence are in my files and if you care to see them, I will be glad to let you have them.

Yours truly,

D-G E. T. Dumble"

The witness identified a letter written to him by C. W. Eberlein on March 21, 1907, which was offered in evidence, marked Defendant's Exhibit 149, and read into the record as follows:

Charles W. Eberlein,
Acting Land Agent.
San Francisco, Cal. March 21, 1907.

Professor E. T. Dumble,
Consulting Geologist,
Southern Pacific Company.
Building.

Dear Sir:

I am in receipt of your letter of March 15, 1907, relative to operations of the Kern Trading & Oil Company on [2402] land of the Southern Pacific Railroad Company, and I note what you state as to the purport of certain correspondence relating to this matter and which occurred before the fire.

All of our correspondence and records were des-

troyed, and as you have saved yours, you are, of course, in position to know what the correspondence was. I will therefore thankfully avail myself of your offer to loan me the correspondence in order that I may restore our records in that respect.

Please send me the same at your early convenience, and oblige,

Yours truly,
(In ink) Charles W. Eberlein
Acting Land Agent.

The witness continuing, testified as follows:

In compliance with the request contained in the above letter, I sent Mr. Eberlein as complete copies as I could get.

Thereupon a copy of the above letter addressed to C. W. Eberlein dated April 1st, 1907, was introduced in evidence, marked Defendant's Exhibit 150, and read into the record as follows:

Mr. C. W. Eberlein,
Acting Land Agent,
San Francisco, Cal.

Dear Sir:

In accordance with your request of recent date, [2403] I hand you herewith carbon copies of my file on the subject of the transfer of the properties to the Kern Trading & Oil Co., including lease of the S. P. R. R. Co. lands.

D-G. Yours truly,

The witness here identified a letter dated April 11, 1907, received by him from C. W. Eberlein, which was offered in evidence, marked Defendant's Exhibit

151, which acknowledged receipt of the letter of April 1, 1907, mentioned above.

The witness continuing, testified as follows:

I examined a number of townshipplats which have been introduced in evidence in connection with the testimony of Erwin Owen, as having come from the papers of Josiah Owen. I saw them in Erwin Owen's possession sometime during 1912, in the fall, I think. I did not receive any of those plats from Mr. Owen during his lifetime from Josiah Owen during his lifetime that I know of. I don't remember ever having seen them before. [2404]

E. T. Dumble's Direct Examination Resumed. Vol. 11, p. 5986.

DIRECT EXAMINATION resumed

As to what I had to do with the new lease drawn for the Kern Trading & Oil Company in 1907, I will say that I took the matter up with Mr. Calvin and he instructed me that since a new lease had to be drawn it would be well to include all the lands which were at that time considered oil lands, and I immediately made lists of the lands which were considered oil lands, submitted copies of the lists to Mr. Owen and Mr. Anderson, with the request that they go over it and add to or take from it. I received replies from both of them. The lists of lands now shown me, marked "Plaintiff's Exhibit 4 I" is the list of lands that was furnished me by Josiah Owen. I received a letter from Mr. Owen, dated August 12, 1907, which is now marked "Defendant's Exhibit 18", with which

he sent me an additional list of lands to be included in the lease. I don't remember where the original of that list is. After receiving the lists from Mr. Owen and Mr. Anderson, I went over the list with Mr. Anderson and prepared the list that went finally to Mr. Herrin. Mr. Herrin drew up the form of the lease. I think Mr. J. E. Foltz had charge of it.

The document just handed me is the list covering the lands in Kern County, made December 12, 1907 and signed by E. E. Calvin and J. L. Wilcutt for the Southern Pacific Company and by the same men as president and secretary of the Kern Trading and Oil Company. The notation in the lower left-hand corner of the last page "Approved as to designation, E. T. Dumble" is in my handwriting. The notation, "Approved as to form" has Mr. W. F. Herrin's name signed to [2405] it by Mr. Murphy. On each page of this document the initials of G. L. King appear. I am not sure what position he held with the Southern Pacific Company but he passed on all contracts and leases. They all had to go through his hand and be approved by him.

The defendant thereupon introduced the document referred to in evidence, which was marked "Defendant's Exhibit 152" and reads as follows:

"INDENTURE OF LEASE, made this *12th* day of *December,* 1907, between SOUTHERN PACIFIC RAIROAD COMPANY, a corporation incorporated and consolidated under the laws of the State of California, and of the Territories of Arizona and New

Mexico, and hereinafter called 'Lessor', and KERN TRADING AND OIL COMPANY, a corporation incorporated and existing under the laws of the State of California, and hereinafter called 'Lessee',

WITNESSETH:

That for the considerations and for the term hereinafter set forth, the Lessor hereby demises and lets to the Lessee, and the Lessee hereby hires and takes from the Lessor, the following described lands, situate in the County of Kern, State of California, to-wit:

KERN DISTRICT:

Township 29 South, Range 28 East, N ½, N ½ of SW ¼ and NW ¼ of SE ¼, Sec. 3	436.56	acres
Township 29 South, Range 29 East NW ¼ and N ½ of SW ¼ of Section 7	243.01	"
[2406] All of Sections 17, 19, 21, 29	2563.76	"
McKITTRICK DISTRICT		
Township 30 South, Range 21 East, Section 1	847.87	"
Lots 1, 4, 9, 10; and NE ¼ of NE ¼ of Section 11	100.36	"
Township 30 South, Range 22 East, All of Sections 5, 9, 15, 23, 25, and 33	3912.89	"
All of Section 7 except the NW ¼ of NW ¼	590.27	"

N ½, N ½ and SE ¼ of SE ¼; N ½ of SW ¼; and W ½ of SW ¼ of SE¼ of Section 17,	540.	"
All of Section 21 except W ½ of SW ¼ and McKittrick townsite	300.	"
E ½; E ½ and NW ¼ of NW ¼ of Section 27.	440.	"
N ½ and SE ¼ of Section 35	480.	"
Township 30 South, Range 23 East, Section 31	640.38	"
Township 31 South, Range 22 East		
NE ¼ of Sec. 15	160.	"
NE ¼ of Sec. 23	160.	"
NE ¼ of Sec. 25	160.	"
Township 31 South, Range 23 East		
Secs. 5, 7, 9, 15, 21, 23, 25 27, 29, 33, 35	7036.88	"

[2407]

E ½ of Sec. 17	320.	"
Township 31 South, Range 24 East, Secs. 31 and 33	1312.	"

MIDWAY AND SUNSET DISTRICTS:

Township 32 South, Range 23 East		
Secs. 1, 3, 11 and 13	2564.30	"
N ½ of Section 5	320.80	"
Township 32 South, Range 24 East, Secs. 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 33 and 35	10239.84	"

Township 12 North, Range 24 West, Lots 1 and 2, Section 25	59.95	"
Township 11 North, Range 24 West, NE ¼ Section 1	159.89	"
Township 12 North, Range 23 West; Secs. 29, 31, 33	1381.12	"
Township 11 North, Range 23 West, Secs. 3, 5 and 9	1927.72	"
N ½ and SE ¼ Section 15	480.	"

(In ink:) G S K

This lease shall extend for a term of ten (10) years from and after the date hereof, and, thereafter, as to each of the tracts aforedescribed, so long as the production of oil thereon shall continue.

As rent for the premises hereinbefore described the lessees shall pay to the lessor ten per cent (10%) of the gross production of oil therefrom -- oil used for development purposes alone excepted -- such payments to be made monthly, [**2408**] and at the expiration of each calendar month during the continuance of this lease.

The lessee hereby covenants and agrees to and with the lessor to pay the said rent or royalty, and to observe and fulfill all the stipulations, covenants, terms and conditions hereinbefore contained.

And, in consideration thereof, said lessee faithfully performing all of the obligations on its part herein contained, said lessor does hereby warrant to

said lessee the quiet possession of said premises during the continuance of this lease.

But, in the event of the breach of any of the said obligations herein contained on the part of said lessee, it is covenanted, agreed and understood that the lessor may forthwith re-enter upon said premises, or any part thereof, and evict and exclude the lessee, or any person or persons claiming by, through or under it, therefrom.

(In ink): G S K

IN WITNESS WHEREOF, the parties hereto have hereunto set their names by their officers thereunto duly appointed, and have caused their corporate seals to be hereunto affixed, as their act and deed, the day and year first above written.

SOUTHERN PACIFIC RAILROAD COMPANY,

(Seal of:) By E. E. Calvin

SOUTHERN PACIFIC RAILROAD *COMPANY* Vice-President,

J. L. Willcutt

Secretary [2409]

KERN TRADING AND OIL COMPANY,

(Seal of:) By E. E. Calvin

KERN TRADING AND OIL CO *SAN FRANCISCO, CAL.* President,

Incorporated May 22, 1903 J. L. Willcutt,

Approved as to description of lands E. T. Dumble Secretary.

Consulting Geologist, APPROVED AS TO FORM

Wm. F. Herrin

Chief Counsel M"

G S K

(Endorsed on back:) "532 *KERN TRADING & OIL COMPANY* LEASE. Southern Pacific Railroad Co. -- to -- Kern Trading and Oil Company. Dated: Dec. 12th 1907.

(In pencil) Land in Kern, McKittrick, Midway and Sunset Districts."

The first general examination made by my department of the general grant lands, or reserved lands, was made during the year 1905 by Mr. Owen and Mr. Anderson.

There had been a blanket reservation made covering a large quantity of S. P. R. R. lands in the valley, and it was desired to have a general examination made in order to separate those which were clearly agricultural lands and outside of any field of influence of oil matters, so that they could be put on the market. My instructions as to these examinations came from Mr. Calvin. I made no personal examination of the lands, myself. The report was made to Mr. Calvin, January 1, 1906. My office is now engaged in making a more detailed examination of the same area, the examination in 1905 being merely a reconnaissance. The examination was made to [2410] designate all of the lands which were strictly agricultural and outside of those the barriers of which could be influenced by their being oil land or being near to oil fields, so that the others might be sold and the remainder reserved from sale until they could be further examined.

Thereupon the defendant introduced in evidence

a duplicate of the letter dated July 20, 1905, from Mr. Owen to Mr. Dumble, transmitting list of lands referred to therein which was marked "Defendant's Exhibit 153".

From January 1st to January 20th I was in Texas. I left Texas on January 20th and arrived in San Francisco on the 24th. I came by the Southern Pacific to Los Angeles and the Coast line from Los Angeles to San Francisco. Thomas J. Griffin did not accompany me on that trip. I left San Francisco on March 25th and arrived in Houston, Texas, on March 29th. Griffin did not accompany me on that trip. He was not with me on any part of either of these trips. I left Texas on April 21st and arrived in San Francisco on the 25th having travelled by the Coast Line. Griffin did not accompany me on that trip and was not with me on any part of it. I left San Francisco May 14th and arrived in Houston on the 17th. I travelled over the coast route. My diary does not show that I went over that route but I did because the through trains ran over the coast line at that time. My diary does not show that I stopped off any place. I again left Houston on June 26th and arrived in California on the 30th over the coast route. Thomas J. Griffin did not accompany me on that trip or any part of it. I left San Francisco July 27th and arrived at [2411] Houston on the 31st. Griffin did not accompany me on that trip. I next left Houston on August 7th and arrived in San Francisco on the 11th of that month over the coast line.

Griffin did not accompany me on that trip. I left San Francisco on August 11th and reached Houston on the 15th and Griffin was not with me on that trip. I left Houston on September 5th and arrived in San Francisco over the coast line on the 10th. We were hung up at Langtry twenty-four hours by a wash-out; got to Los Angeles on the 9th, and I have the address of a gentleman, Rev. Mr. Hazel, who at that time lived in San Jose. I took his address as we came up with him. He accompanied me on that trip. Thomas J. Griffin was not with me on that trip. I left San Francisco on October 13th and arrived at Houston on the 17th and Griffin was not with me on that trip or any part of it. I left Houston November 11th and arrived at San Francisco over the coast line on the 15th. Griffin was not with me on any part of that trip. I left San Francisco on December 15th and arrived at Houston on the 19th. Griffin did not accompany me on that trip. He did not accompany me on any trip in the spring of 1904, or at any other time in 1903 or 1904, to San Francisco or any other part of California.

I never had a conversation with Thomas J. Griffin respecting any of the lands in Kern County and particularly the lands on the west side, near McKittrick, in the spring of 1904, at the Rio Bravo property at Sour Lake in Texas, about twenty miles northwest of Beaumont, or at any other time or place. If Mr. Griffin testified that a conversation came up [**2412**] over the Rio Bravo well No. 107, and that we

were at that well discussing the depth of the first strata of oil that was struck where there was a gusher, and as to the probability of striking a lower strata, and the gravity of that oil that we might strike at the lower strata, and that I began to tell him about the low gravity of oil in Kern County, of the Kern field, and Sunset and McKittrick, and that I would like to find an oil of that low gravity as it would be much better for fuel, and not so much danger of fire, and would like very much to find it, or suggested that if well 107 quit flowing or quit producing that I was going to take it up with New York and get an appropriation from there to deepen that well and go down and make a test of it, it is not true. It is not true that Mr. Griffin and I had a conversation at that time wherein I said that the coming field was California and that that was where he ought to get in; that the territory was so large. I didn't say that I had been over every foot of it in person and that it was so large that one could hardly put down a hole without getting oil, and there was no conversation in which I said, "We own a great deal of that land, a great deal of it we have not yet taken patents on, but we expect to." I may have met him two or three times in the field; the first recollection, at least the first impression I have of Griffin, was in connection with a wild well near the old Sour Lake postoffice, in which, as I remember it, Griffin used a diver's suit to shut off the flow of oil. Further than that I knew of him as being connected with, I think it was the Mary Ellen Oil Company and Spindletop Power Company. I was not at

all intimately acquaint- [2413] ed with him. I never was much of talker at any time.

Q By Mr Lewers—Now, on page 2045 he proceeds, in answer to the following question: "Q—Did you have any conversation subsequent to that time with him or before that time with reference to the oil lands in Kern county? A—Yes sir. Q—Where? A—I was on the train with Mr. Dumble passing through the Kern River field, or near it when he pointed over— Q—What time was that? A—This was in the spring of 1904 while I was in the employ. Q—Were you on a trip with Mr. Dumble at that time; A—I was. Q—And where were you going to come? A—To San Francisco. Q—From where? A—From Houston, Texas. Q—On business relating to the Rio Bravo Oil Company? A—Yes sir, coming out here on business of building and conferring in the construction or erection of a refinery to be built at Welsh, Louisiana, or a treating plant. Q—Whom were you coming to see about that? A—To see Mr—the consulting engineer. I will just think for a moment. Q—Well, you were coming to San Francisco, were you? A—Yes sir, to see the consulting engineer. I can't call his name for the moment. Q—Where were you on the train, that is, what point along the line of the road were you when the conversation took place respecting the Kern River field? A—Just north of Bakersfield or right opposite the Kern River field. Q—Now, state the conversation. A—When we were discussing the Kern River field and he pointed over with his left-hand; he was sitting

next to the window in the Pullman, and he pointed and says, 'Griffin, right over yonder about thirty miles is the biggest oil field in the world. I know [2414] it, so does all the rest of us know it. We have large holdings over there,' he says, 'I think I told you about this some time ago, and you should have gone over, or you should yet. We have large holdings and expect to have more.' " Did such a conversation take place?

A It never did.

Q Did such a conversation take place in the spring of 1904 or at any time?

A It never did.

Q Did you ever have any conversation with Thomas J. Griffin on a train in California?

A I never did. I never made such a statement to any one. I was never in the Elk Hills or on the lands in 30-23, that is in controversy in this suit; up to the time that the patents were issued there had never been a report made to me either by Mr. Treadwell, Mr. Owen or Mr. Anderson.

I have absolutely no recollection of ever having spoken to anyone or written anyone whatever regarding the oil possibilities of this land prior to the issuance of these patents; nor is there in my files, so far as the exhaustive search will disclose, a single scrap of evidence in regard to it. Mr. Griffin was employed by the Rio Bravo Company. I was Vice President and General Manager of that company and I had full charge of the operations from the day

it was formed, March 2nd, 1903. I had a talk with Mr. Griffin during the last days of May, 1904, and his actual employment began on the first of June, 1904. The Rio Bravo Oil Company had two ten thousand barrel tanks at [2415] Spindletop, a field which we had abandoned, which we wished to transfer, one to Sour Lake and the other to Welsh. I got bids for removing these tanks from several tank builders on the coast. Finding them higher than I wanted, I got hold of Griffin in some way, I don't remember how, and made an agreement with him to take charge of the work, we paying his salary. This was the beginning of his connection. Prior to that time he had not been employed, to my knowledge, by the Rio Bravo Oil Company, either specially or generally. He was not employed by the Southern Pacific Company. I have no recollection that he assisted me in connection with any matter prior to his employment at the end of May, 1904. I did not call on him for advice or assistance in connection with the construction of any refineries or lubricating plant. He left the company on the 27th of August and we paid him up to the first of September, 1904. He was not in the employ of the company after that time. I think he was in charge of the machinery, the boilers and compressors, and the shop probably, of the Spindletop Power Company. I don't remember of having had any dealings with him while he was connected with that company. I thing I saw him then as we passed from the field. Upon his employment by the Rio

Bravo Company I requested passes for him over the lines in Texas and the lines in Louisiana and he had separate passes as was required by the Railroad Commission at that time, one for each state. They were sent to him on the 7th of June, 1904. I know that from a letter in my files transmitting passes. The letter was addressed to Mr. Griffin in Beaumont. I did not request the issuance of any pass to Mr. Griffin prior [**2416**] to these passes that were transmitted to him on June 7th. No passes were issued to employees of the Rio Bravo Oil Company except on my request. Mr. T. Fay, who was the President of the Rio Bravo Oil Company, was also Vice-President of the Sunset lines in Texas. He had authority to issue passes but he would only issue them to employees of the Rio Bravo on my personal request. I never requested a pass west of El Paso for Mr. Thomas J. Griffin. He did not hold any Southern Pacific pass west of El Paso. I never approved any voucher in payment of any expenses of Thomas J. Griffin in any trip to California nor did I ever pay his expenses on any such trip nor did I ever make any arrangements with anyone else whereby Mr. Griffin's expenses should be paid on a trip to California. Mr. Griffin in his testimony made reference to coming to California to see a certain consulting engineer and when I am asked if there was any engineer in California consulted with reference to construction of the lubricating plant at Welsh, Louisiana, my answer is "Mr. Howard Stillman, the mechanical engineer of the company, was the

man who first discovered the lubricating quality of Welsh oil by his experiments early in 1903. During that year the oil was tried out on the railroads. Very early in 1904 the matter came before Mr. Kruttschnitt, and instructions were given for a small treating plant at Welsh. A twenty-five barrel vat, which was built by Mr. Stillman and shipped to Welsh, was erected and tested. The matter was then turned over to me, with copies of all the correspondence, and on my trip to California in April, 1904, I took the matter up by correspondence with Mr. Kruttschnitt and received authority **[2417]** to go on with the erection of the plant. I wrote Mr. Stillman regarding that; Mr. Stillman came to Texas and Welsh in June, 1904; he and I went to Welsh together to look over the ground, and he then made his plans for the treating plant. I think it was in July that I received his plans; and so far as I now know it was on the receipt of these plans that Mr. Griffin first had anything to do with it. That was in July, 1904. At that time Mr. Stillman's office was in Sacramento, not San Francisco. I made no trip to Sacramento or San Francisco to see Mr. Stillman. I merely took it up when I was there in connection with other matters. I took no one from Texas with me on any of these trips in connection with that matter. While Mr. Griffin was working for the Rio Bravo Oil Company I think he called himself a mechanical engineer and I think he carried that title on the pay roll and probably on the passes but I am not sure of that. All that my memorandum for the year

1904 shows concerning Thomas J. Griffin is that on August 27th it simply says, "Griffin left". My recollection is that at that time he quit the employ of the company on August 4th. I was at Welsh. I went over there and arranged for the evaporating vats. Kennedy and Shaw were there that day; but I have no reference to Griffin. Independently of my memoranda my recollection is that I saw Griffin there at that time in connection with the tanks that he was building. I have no personal knowledge of where Griffin went after he ceased his connection with the Rio Bravo Oil Company at the end of August, 1904. In the latter part of August he told me that he would like to go to Mexico and I [**2418**] requested an employee's half rate for him over the Mexican lines but Mr. Fay said it could not be granted. It was not allowed by the statute and the refusal was not personal to Mr. Griffin. The following is a carbon copy of a letter written by me to Thomas J. Griffin and he has attached to it a blue print of the property of the Rio Bravo Oil Company at Welsh. Mr. Griffin made the notations which appear on the blue print in red (said copy of letter and blue print attached was offered in evidence and marked the Defendants' Exhibit 155, L L.) Mr. Griffin had absolutely nothing to do with the preparation of the plans for the vats and the suggestions contained on that blue print were not followed out. Mr. Griffin made several trips to New Orleans during his employment. He first went there in connection with the bottoms. The bottom plates

of the two tanks were more or less rusted out and he went to New Orleans to get new ones made and punched for them. He also went over to get bids on some seven hundred and fifty barrel tanks that we erected at Welsh and Saratoga and I also sent him to New Orleans to get bids on the plates for the vats. I was in Houston on June 23, 1904. Griffin may have been on the train once or twice on my trips about the oil fields in December about that time but I have no recollection of it. In Defendants' Exhibit 119 the letter of September 21, 1903, reference is made on the first page of the letter to certain attached maps and I will now explain what maps were attached to that letter. There were two maps which were identical with those submitted to me by Mr. Owen in response to my letter of June 11 [**2419**] One was a map of the McKittrick field. I retained a copy of both maps. This other map is a copy of the one attached to my letter to Mr. Kruttschnitt on September 21, 1903. This map was made by me from the original map submitted by Mr. Owen, of which I have spoken. The notation written in ink at the upper right hand corner was written in the spring of 1912 by me in Mr. Kruttschnitt's office while I was in New York. It was not there prior to the time when I turned these maps over to Mr. Kruttschnitt in 1912. I did not make the pencil notations at the upper right hand corner of the map which notation looks like "Ant 1903". I do not know who made those notations or the notation in pencil on the map "Map No. 4". With the exception

of the notations which I have mentioned the balance of the map was made by me. This is a copy of one of the maps which I sent to Mr. Kruttschnitt September 21, 1903. It was a copy of the map sent to me by Mr. Owen. I am not prepared to state whether I sent the original map made by Mr. Owen or whether I sent a copy of it to Mr. Kruttschnitt, possibly I may have done both. It is customary, usually, in connection with such papers to prepare copies of such maps. I was in San Francisco on September 21, 1903, when I wrote this letter to Mr. Kruttschnitt, that is, according to my diary. (The map last referred to was offered in evidence and marked Defendants' Exhibit 156). This other map which you show me is the original map which I received in connection with Mr. Owen's letter of March 25, 1903. The legend in the lower right hand corner is in the handwriting of Mr. Owen. I don't know in whose handwriting the words "March 25, 1903". That was not on the map at the time I turned it in with the other [**2420**]map in 1912 and that notation and the date was not on the map as originally handed to me by Mr. Owen. There is a pencil notation of my own on section 21 marking the location of McKittrick. This notation is "McK". Aside from these pencil notations the map is in absolutely the same condition as when it was received. This map referred to and offered in evidence is marked Defendants' Exhibit 157 L.L. The map which I now produce was found in my Houston files in connection with the letter of Mr. Eberlein October 8, 1904. This map was prepared by Mr. Redfern. He

copied it from the maps which accompanied Mr. Eberlein's letter. I do not know personally that this is a correct copy of the map that accompanied Mr. Eberlein's letter of October 8th, 1904. This map was in my Houston files until I turned it over to Mr. Kruttschnitt with those other maps. It was received by me last night from New York. This copy was probably made immediately upon the receipt of those maps in the due course of the mail at Houston in October, 1904. The letter was dated October 8th and a copy was made about that time. Generally, if the office business would permit it, copies of maps were made immediately when they came in for the Houston files. (The map last referred to was offered in evidence and marked Defendants' Exhibit 158 L.L.)

CROSS EXAMINATION.

I think I first met Josiah Owen in 1887 or 1888 at Austin, Texas. In September, 1887 I was appointed State Geologist and engaged Mr. Owen for a month's service in the coal region around Eagle Pass; received the report in December of that year. In September, 1897 I went to Sonora [**2421**] and finding I needed a man who understood Spanish and the coal business I wrote to Mr. Owen to come out and help me there. This was in Old Mexico. My recollection is that he arrived there in October or November, 1897. At that time I was employed by the Southern Pacific Company. Mr. Owen worked for the Southern Pacific Company in Mexico I believe

continually, or practically so, until 1901 and he was there afterwards at times when I sent him down on special business. He was under me all the time. Mr. Owen and I were directly connected in the Pilares coal field, in the Piedrayman iron property, and in some small precious metal prospects around San Xavier. This was a private venture and I continued in private ventures of that sort with Mr. Owen up to the time of his death, both in Mexico and the United States. I met Captain McKittrick once. I think it was at Bakersfield or on the train with Mr. Owen. Mr. Owen knew him in Mexico. My present employment by the Southern Pacific Company was commenced in March, 1897, and my title under that employment is "Consulting Geologist". At the time of my employment I was working for a railroad which afterwards was taken over by the Sunset lines in Texas, which are a part of the Southern Pacific Company system. I first met Julius Kruttschnitt in 1872 or 1873. We were school mates at Washington and Lee University and have been acquainted ever since. I am the geologist in charge of the geological work generally of the Southern Pacific Company. I handle the geological work for the Kern Trading and Oil Company. I am Vice President and General Manager of the Rio Bravo Oil Company. I am Vice President and General [**2422**] of the East Coast Oil Company S. A. I have no relations with the Associated Oil Company. At one time I was a director in the Associated Oil Company. I cannot give the

year but the records will show. It was subsequent to the time when the Southern Pacific Company acquired a controlling influence by stock ownership in the Associated Oil Company. I don't recall what year it was. I have never been a stock holder in the Associated Oil Company except that I had qualifying shares so that I could be a director. I did not sell those shares but turned them back to the Southern Pacific Company. I am a stockholder in the Rio Bravo Oil Company. I am not a stock holder in the Kern Trading and Oil Company. I am not at present but have been in the past, an officer of the Kern Trading and Oil Company. I was Vice President and General Manager of that Company. As a director in the East Coast Oil Company I hold shares of stock. All these three companies that I have mentioned are owned and controlled by the Southern Pacific Company, defendant in this case. As a geologist in the employ of the Southern Pacific Company I have performed geological wrok for the three companies I have named and my salary was paid by the Southern Pacific Company, defendant in this case, and has been ever since I was employed. There was one other company which I neglected to mention which was a subsidiary of the Southern Pacific Company and that was the Sunset Development Company which operated in Mexico. Including services which were rendered to the Southern Pacific Company itself, the salary which was paid to me by the Southern Pacific Company was apportioned to

the various companies which I have mentioned [2423] At one time there was apportioned out of my salary for the services rendered the Rio Bravo Oil Company $166.66 a month. My salary is materially larger now than it was in 1904. My salary in 1904 was $5000 a year and since then it has increased a hundred per cent. I first met J. B. Treadwell when I made a trip to the oil fields in July, 1901. I remember meeting Mr. Treadwell on the train between Houston and El Paso after the bringing in of the gusher at Spindletop. Whether this was prior to or after my meeting in the oil fields in 1901, I am not prepared to say. I assisted Mr. Treadwell in the California Oil fields in 1903. Mr. Treadwell, to my knowledge, was in the employ of the Southern Pacific Company in Texas. I met him in Texas, in the summer of 1901, on the train. I think it was in January. At that time he told me that he was in the employ of the Southern Pacific Company in the oil business in Texas. I was not in the employ of that company in 1901. I was working coal lands almost entirely and other minerals not oil. I think I met Mr. Treadwell at Beaumont a time or two and possibly a year or so later I may have met him in Texas a time or two. So far as I know Mr. Treadwell was in charge of the Southern Pacific oil business in Texas. I assisted Mr. Treadwell in Texas as well as in California. I don't know it personally, that Mr. Treadwell was buying lands in Texas which were said to contain oil, in his own name for the benefit and in trust for the

Southern Pacific Company. He bought certain lands at Spindletop which came into the possession of one of the railroad companies there. I do not know that he bought it [**2424**] in his own name and that it afterwards came into the possession of the company. I meant that the lands which he had and was operating came into possession of the railroad company in Texas. I do not know that he was operating those lands in his own name. When I came to California to take charge of the oil business of the Southern Pacific Company and its subsidiaries I didn't know anything about the amount of land Mr. Treadwell had in his own name in the Kern County oil fields. He had some lands at McKittrick. When you ask me if I knew or discovered shortly after I took possession, that these lands had been purchased by Mr. Treadwell in secret trust for the Southern Pacific Company, my answer is "I don't know anything about the secret part of it." My recollection is that when I arrived at Oil City it was perfectly well understood that that was Southern Pacific property. Some of those lands were held in the name of J. B. Treadwell. I did not know that he held a great quantity of land in Kern county in his own name. If I noticed his name on the railroad company maps on parcels of land which I knew belonged to the Southern Pacific Company I paid little or no attention to it. I did not know it as a fact that Mr. Treadwell did buy lands in behalf of the Southern Pacific Company in his own name. All I know is what Mr. Treadwell told me. He told me

that he bought lands with his own money, and then offered them to the railroad company, and if they wanted them they took them off his hands at the price he paid for them. I have no way of fixing the date when I became acquainted with George A. [**2425**] Stone. I have no recollection of Mr. Stone prior to the spring of 1905. I don't know if Mr. Stone was Assistant to the Acting Land Agent of the Southern Pacific Company, Mr. Eberlein, in 1903. I do not remember seeing him in the Land Department of the Southern Pacific Railroad Company in 1903. I don't remember having any correspondence with Mr. Stone in 1903. When you inform me that Mr. Stone testifield that I, as the geologist, pressed the selection of the lands in suit for reasons best known to myself and then ask me what those reasons were my answer is, "I never pressed the selection of those lands." I did not go to see Mr. Stone in the Land Department in 1903 and recommend the selection of these lands because of my belief that they were oil bearing in character. I did not know that these lands were to be selected at that time. Knew absolutely nothing about it. I did not know that they were oil bearing lands in 1903 and I had not received a report from Mr. Owen showing that they were oil bearing lands and Mr. Owen had not, to my knowledge, been over these lands in 1903 and carefully examined them and reported upon them to me and he had not, at that time, reported upon other lands which had not been patented, to me. I won't say that he never reported

to me on any lands in section 30-23 or 30-24, which had not been patented. I did not, about September or October, 1903, or earlier, in pursuance of that report showing these lands were probably oil lands, go into Mr. Stone and urge the preparation of the selection list known as list 89, for the selection of these lands. I did not have trouble with [**2426**] Charles W. Eberlein in 1903 because of my activity and the activity of my men in examining patented lands falling within the grant and inuring to the Southern Pacific Railroad company. I never had any trouble with Mr. Eberlein in regard to my examining, or directing the examination geologically, of lands which would inure to that grant if agricultural. At no time did we have any instructions or did I give any to any of my men to examine any lands other than patented lands. I never heard of any trouble at all between the Land Department of the Southern Pacific Railroad Company, which was being administered by Mr. Eberlein, and the Geological Department of the same company, over which I presided, with regard to the examination of unpatented lands. I don't remember of any trouble other than would arise between any departments in the administration of their separate work. I did not send repeatedly to the Land Department to get lists of the lands of the Southern Pacific Company and lists of their unpatented lands, for the purpose of making examinations. I think sometime later Mr. Eberlein refused to turn over complete lists of the lands of the company. I don't remember just

when. When you ask me if I knew that Mr. Eberlein believed that my examination of these lands in the immediate vicinity of the lands in suit and my inclusion of lands adjoining the lands in suit in a proposed lease to the Kern Trading and Oil Company, would jeopardize the selection list Eberlein had made for these lands in suit, by giving notice to the company of their probable oil character and that I knew that before [2427] patent, my answer is, "Only when I received that information from Eberlein at that time." Eberlein stated that he believed that it would create notice to the company of the mineral character of the lands that are the subject of this suit but I didn't think so. From my conversation with him I didn't believe it because the lands that he had selected were not interspersed with any that he had. When you ask me if I knew that Mr. Eberlein believed at that time that the execution of this lease would fix the mineral status of these lands in suit my answer is, "I didn't think it would fix the status of it." I don't know whether Mr. Eberlein believed it or not. I did not talk over the matter considerably with him in a room known as room 71. Not to my recollection. Mr. Eberlein may have stated to me at that time the grave danger of my including these lands which I proposed to put into these lease to the K. T. & O. Company because of the danger that the lease might be rejected by the United States Land Office for the lands in suit. I don't remember what statement he did make in that room and when you

ask me if I understood from my talk with him that he believed that my activity in regard to this lease here to the K. T. & O. Company was seriously endangering the possibility of the acquisition of those lands in suit because of their mineral character, my answer is, "I can't remember whether he thought it would seriously endanger or whether it would simply act as a bar in some shape to his getting his title as quickly as he wanted to and when you ask me if I knew at that time that [**2428**] if that lease became public Mr. Eberlein believed that it would operate as a rejection of that list which had been presented to the United States Land Office my answer is, "I don't think so." I did not discuss it with him to my recollection. I absolutely did not regard it as a danger myself. When I wrote Mr. Eberlein on March 15, 1907, Defendants' Exhibit 148, and stated "early in December we had a further conference on the matter and you explained that you were rushing certain lands for final patent and that the immediate execution of the lease showing our idea of what were oil lands might interfere with you and we agreed to defer the execution until that danger was passed," the danger that I referred to was just as I stated; danger of interfering with him and the danger that these lands might be delayed and not be patented because of their mineral character; that they might be delayed for further investigation probably by the United States Government. According to Eberlein's idea the United States Government might

make further investigation and this lease would interfere with his operations, that is, with his obtaining the patent for these lands in suit. There was not any danger that I saw, in the execution of that lease. The language in this letter where I said I agreed to defer the execution until that danger was passed was so far as he was concerned. I did not agree with him that it was dangerous at that time. I have already testified that I agreed with him that it was better to defer the execution of that lease until the patent was issued. I agreed to this for his satisfaction. In my opinion the lease would have nothing to do with the patent. [**2429**] I agreed that I would defer the execution of that lease until after the patent should be issued to meet his request and when you ask me whether or not I didn't agree to that proposition my answer is, "I have answered it time and time again. I agreed to defer it in deference to his wishes until the patent was issued. I did that simply to ease the matter over. I did not know these lands were mineral at that time. I did not have maps and reports showing these lands were probably mineral lands and I did not secretly go to Mr. Stone, the assistant to Mr. Eberlein, to urge the selection of these lands because I knew in my heart that these lands were mineral and when you ask me if I agreed with Mr. Eberlein in room 71, where we could be alone, that it was best, according to his wishes, not to execute that lease until after the patent was issued so I would not have trouble with the United States Government, my an-

swer is, "I simply agreed in deference to his wishes to let it go over, that was all." I knew that Mr. Eberlein didn't believe before that time, that those lands were mineral. I never saw his map on which he had marked those lands showing that they were next to lands which were believed to be oil lands. I wrote to W. H. Bancroft on December 7th, 1904, as follows: "In connection with our correspondence regarding the transfer of property to the Kern Trading and Oil Company, I have had a conversation with Mr. Eberlein and it seems for reasons of policy regarding certain unpatented lands that it will be best not to execute the lease of lands between the S. P. R. R. Co. and the K. T. & O. Co. at present." When you ask me what I meant [2430] when I said it was best "for reasons of policy" touching these certain unpatented lands, my answer is, "that was to help Mr. Eberlein out with his idea. I did not have a remote suspicion at that time that those lands were believed to be mineral. I had no reports that these lands were mineral and I was not trying to jam that patent through. When I stated further in that letter "I would, therefore, suggest that the papers covering the transfer of property from the S. P. Co. to K. T. & O. Co. be executed and that the lease of lands in the McKittrick and Coalinga districts from the S. P. R. R. Co. to the K. T. & O. Co. be held up for the present," by the words "held up for the present" I meant just what it says. I don't remember anything further than what is in the letter. I did not mean

what I said awhile ago "until the patent could be issued"; I didn't pay any attention to that. I don't know that I stated that I understood that Mr. Eberlein wanted to defer that until the patent was issued, and when you ask me if that is what I meant, my answer is, "I don't know that I stated that". Only for what Eberlein said did I know at that time that those lands hadn't been patented and when you ask me if I didn't mean that I wanted it held up until the patent issued my answer is, "I had no wants in the matter one way or the other." I suggested that to Mr. Bancroft, the Acting Manager, because Mr. Eberlein was in charge of the Land Department and I deferred to his wishes entirely and I assumed the responsibility of recommending in my own name to Mr. Bancroft that it be held up; I didn't say until the patent could be issued for those lands but you may say so. To [2431] the best of my knowledge and belief at that time I had never seen Mr. Stone and had a conversation with him with reference to the making up of the selection list which forms the basis of the patent to the lands in this suit. I didn't know that Mr. Stone had been discharged by Mr. Eberlein after the patent was issued in this case. I did not know that Mr. Stone had written a threatening letter to Mr. Kruttschnitt in which he said that if he were not re-instated that he would lay the matter before the Attorney General of the United States or give the matter to the public press. I never heard of it until after this suit was—until it came up in the testimony

of this case. I did not know that Mr. Stone was discharged. I don't know if Mr. Stone is a pensioner of the Southern Pacific Company at the present time. I know Mr. Stone now; I did not know him at that time. I don't remember him in 1903 and I can't place him in 1904. I believe I did get a letter from Mr. Eberlein in 1904, dated October 8th, in which Mr. Stone signed Mr. Eberlein's name. When you ask me did not Mr. Eberlein explain to me that he was rushing these lands in suit to patent, as I have stated in my letter of March 15, 1907, to Mr. Eberlein, my answer is, "I don't remember whether I did then or afterwards.

Q You say here, "Early in December we had a further conference on the matter"—you are referring now to 1904—and you explained that you were rushing certain lands for final patent. Did Mr. Eberlein explain that to you?

A I don't remember the conversation at that time. **[2432]**

Q Well, if you stated that in this letter, is it true that he explained to you that he was rushing these lands in suit to final patent?

A I suppose that is as I remembered it; but I have no recollection of it now.

Q I am asking you now, if you find it in this letter, if it is true?

A I suppose it was the impression I had on my mind. That is all I can tell you.

Q That Mr. Eberlein explained to you that he

was rushing these lands in suit to final patent, as you have stated in this letter?

A I suppose that was my impression of it at that time.

Q Yes. And you also stated in that letter that you agreed with Mr. Eberlein to defer the execution of the lease until the danger was passed?

A That is the statement.

Q That is true, isn't it?

A That is the way it is stated there.

Q Did you agree with Mr. Eberlein to defer the execution of the lease until the danger was passed?

A The letter to Mr Bancroft is evidence of what I did.

Mr Lewers—I submit that has been asked and answered four times.

Q By Mr Mills—I now ask you, did you agree, as you stated in this letter, with Mr. Eberlein, to defer the execution of the lease until the danger was passed? [**2433**]

A I say again that I don't remember the conversation.

Q You have stated here that you did agree to that, in this letter. Now, is it true that you did agree with Mr. Eberlein to defer the execution of this lease until that danger was passed? I ask you whether that is a fact or not?

A I can't say at this time exactly what was agreed at that time further than that we did agree to defer the signing of the lease until a later time, for his special benefit—for his convenience.

Q For Mr Eberlein's convenience?

A Yes, for the convenience of his work.

Q It was because you recognized, as you said in that letter, that there was a danger in the execution of that lease?

A I have already explained that also.

Q Is not that true?

A I have explained that.

Q I call your attention again, Mr. Dumble, to the statement contained in the letter written by Mr. Eberlein to H. H. Markham, dated September 10, 1904, Plaintiff's Exhibit KK, page 1749 of the record: "In addition to this there is a very urgent reason for delaying the execution of these papers. We have selected a large body of lands interspersed with the lands sought to be conveyed by this lease, and which we have represented as non-mineral in character. Should the existence of this lease become known it would go a long way toward establishing the mineral [**2434**] character of the lands referred to, and which are still unpatented. We could not successfully resist a mineral filing after we have practically established the mineral character of the land. I would suggest delay at least until this matter of patent can be adjusted." Now, you have testified that you got a copy of that letter, sent to you by Mr. Markham. That is true, isn't it?

A I got a copy of a letter sent to me by Mr. Markham, of which that purports to be the original.

Q Yes. Now, at that time, the time you received a copy of this letter—do you remember the date?

A Sometime in September, I believe you read there.

Q September, 1904?

A September, 1904.

Q What did you understand by this language: "We have selected a large body of lands interspersed with the lands sought to be conveyed by this lease and which we have represented as non-mineral in character?"

A I don't remember ever having seen that particular clause of that letter.

Q If you had seen it would you have remembered it?

A I think I would, and I think I would have replied to it, because of the facts as shown here (pointing to map).

Q What did you understand this meant: "Should the existence of this lease become known it would go a long way toward establishing the mintral character of the lands referred to and which are still unpatented?" [2435]

A That is part of the same sentence, is it not?

Q No. It is part of the same letter.

A Same letter. I have no recollection of that.

Q If that was in the copy which was sent to you would you have known it and remembered it?

A I think I would, and have replied to it in my letter to Mr. Markham.

Q What did you understand this meant in the copy which you received: "We could not success-

fully resist a mineral filing after we have practically established the mineral character of the land?"

A I don't remember that in my copy.

Q Do you claim now that it was not in the copy which you got?

A I have no way of establishing what was in the copy, as I have not one; but I have no recollection of that having been in it.

Q And you think you would have replied to it, do you?

A I think I would have replied to it promptly.

Q Then your explanation is that it was not in the copy which you received?

A I don't think it was.

Q "I would suggest delay at least until this matter of the patent can be adjusted." What did you understand was meant by that in the copy which you received from Mr. Markham?

A That was part of the same sentence. [2436]

Q That is the next sentence. What did you understand that meant?

A I don't remember it at all.

Q Are you satisfied that was not in the copy which you received?

A Practically so. I don't remember positively one way or the other.

Q Now, don't you know, Mr. Dumble, that all the excerpts from that letter which I have read were in the copy which you received from Mr. Markham?

A I do not.

Q And that you distinctly remember it?

A I do not.

Q And it was right in line with what you had done?

A No sir.

Q Namely, as Mr. Stone testified, to secretly urge the selection of these lands because of their mineral character?

A It is not so.

Q You knew they were mineral, didn't you?

A I did not.

Q When did you first discover that these lands were mineral?

A I have not discovered it yet.

Q You don't know that they are mineral?

A No sir.

Q Where Mr. Eberlein suggests to Mr. Markham, "I would suggest delay at least until the matter of the [2437] patent can be adjusted", that delay which he refers to is the same delay that you and Mr. Eberlein agreed to in room 71 and which formed the subject of your letter of December 7th, to Mr. Bancroft, is it not?

A It has no connection with that. Our conversation in room 71 had no connection with that part of that letter.

Q You had a conference, didn't you, about delay?

A Yes.

Q In the execution of the lease?

A The execution of the lease.

Q Yes. And that is the same delay Mr. Eberlein

refers to here. delay in the execution of the lease until the patent to the lands in this suit could be effectuated or readjusted? Is that not so?

A It had not connection with that letter, so far as I know.

Q Well, it is the same delay, as you now understand it?

A It was a delay for the purpose of finishing up his titles.

When you ask me if I did not suggest the delay which I had discussed with Mr. Eberlein in response to the adjustment of the patent, my answer is: "That on December 7th, 1904, I wrote Mr. Bancroft 'I would therefore, suggest that the papers covering the transfer of the property from the S. P. Co. to K. T. & O. Co. be executed and that the lease of lands in the McKittrick and Coalinga districts [2438] from the S. P. R. R. Co to the K. T. & O. Co. be held up for the present". I think that is absolutely as clear an answer as I cane make. This entry on my diary for November 28th, 1903, is "Met Mr. Harriman, Wilcox, Huntington; showed them over oil field." Prior to 1904 I was not acquainted with W. D. Cornish. I heard him referred to as Judge Cornish who had charge of the land— or was probably Vice President of the Southern Pacific, but I have no personal knowledge of his position or title. I believe his office at that time was in New York City. I do not know what Mr. Eberlein meant when he wrote in Plaintiff's Exhibit TT "if knowledge of this lease becomes public property it will probably cause us a great deal of

trouble in the United States Land Office and may result in the loss of a large body of adjacent lands". I have absolutely no recollection of the conversation in which there was a discussion about the dangers attendant on the execution of that lease before the patent for the lands in this suit would be issued. It is perfectly blank in my mind. Mr. Eberlein was the head of the Land Department and as such had charge of the grant lands whether they were patented or unpatented. I had charge of the oil production and nothing whatever to do with the general land work. My duties concerned the examination geologically, to determine their mineral or non mineral character only of such lands as I was instructed to examine and such as belonged to the company. When I wrote Mr. Kruttschnitt that I intended to make a thorough and detailed examination of all the lands [**2439**] geologically I referred simply to the grant lands. Geological investigations cannot be limited by section lines. They have to take in a whole area. The lands in 30-23, which are the subject of this suit, were not examined geologically to my knowledge prior to the selection thereof in the fall of 1903. I do not know that my assistant, Mr. Owen, examined those lands in 1903 with a view of determining whether or not they were oil bearing. I don't know of any examination made by him of those lands to determine whether or not they were oil bearing prior to December 12, 1904. This exhibit 157, which I produced this morning and which accompanied the letter of March 25, 1903, from Mr. Owen was received by me in March, 1903. It

shows a anticlinal run through the lands in the Elk Hills in Township 30 South, Range 23 East, and the lands in the suit; it shows Mr. Owen's idea of an anticlinal run through there, which I had not in mind that he had ever been over that part of the land. That map was sent me with a letter which gave a geological report of the West side fields, the McKittrick fields only, I think. Personally I can't say where the Elk Hills are located geographically. My understanding of it is that the Elk Hills take in part of 30-23 and 30-24, but I am not positive. They are nearer to McKittrick than they are to Midway, I believe. We didn't know them as the Elk Hills in those days or have any name for them in fact. It appears from the map that Mr. Owen made a geological study of the portions of the lands which he has indicated on that map and it seems that he has indicated an anticline running out that way. So far as [**2440**] the lands in 30-23 are concerned the anticline runs through sections 19, 20, 29, 28, 27, 26, 25 and 36. This leaves the easternmost boundary line of the township. The sections just beyond that, 30-24, is section 31, 30-24, and just north of section 31 is section 30. Section 32 of 30-24 lies East of section 31, 30-24 and the anticline leaves 30-22 through section 24. This map does not say anything about patented lands on here but it says: "S. P. R. R. Lands" which, as I would assume, were patented lands, and I find the Southern Pacific Railroad patented lands shown on this map at the date the map was executed, the northwest quarter of section 17, the northwest quarter of section 19, and

all of section 31 in Township 30 South, Range 23 East. These lands were Southern Pacific Railroad lands according to the legend on the map at that time. Mr. Owen at that time, by that map, recommended that those lands be reserved from sale by the railroad company; that is according to that legend. Those lands, as I understood, had already been reserved and I understood that they had been reserved from sale due to some suggestions from my predecessor, Mr. Treadwell. I have no knowledge of what lands Mr. Treadwell recommended but I understood that there was—that in addition to the lands he did—whatever lands he may have recommended, there was a blanket reservation put on by some one to cover all lands anywhere near the oil fields. Who that was I don't know. That was my understanding at the time I assumed charge of the oil fields in California. The purpose of doing that, as I understood it, was to escape the possibility of selling lands for two dollars and a half an acre which might be in fact petroleum lands. **[2441]** I made no change in that policy of Mr. Treadwell's after I assumed control of the oil situation. I had nothing to say about it at that time. I have no personal knowledge that that policy grew out of the indiscriminate sale of lands in the Kern River oil field as agricultural lands at two dollars and a half an acre which left the company with slightly more than one section of land in those fields. I had no authority to disturb in any way that policy which I found in force when I assumed charge after Mr. Treadwell left the field. As far as I know I did not attempt to

disturb that policy of the company. I was not the one to be disturbed. I was in the position as a consulting engineer of the Southern Pacific company and was examining grants to the Southern Pacific Railroad Company geologically, or directing that examination so as to make suggestions regarding the reservations of lands from sale. Unless the question had been put up to me in some way I don't think I would have tried to make any suggestions as to a change in that policy. I felt that it was the correct policy and I felt it was my function as a geologist to continue that policy. When I received this map from Mr. Owen in 1903, Plaintiff's Exhibit 157, I was interested in the geological features of it. I have no recollection of any township plants which accompanied that letter. I know they were referred to in that letter by Mr. Owen and he sent me some field sketches of township plats. I know that that is stated in the letter but I have no recollection on it. [2442]

Q Now, on September 21st of 1903, which was several months after the receipt of this map, you wrote Mr. Kruttschnitt in part as follows: "The attached map show these under three heads", that is, what lands you considered valuable for oil purposes, "First, oil lands proven or practically proven, colored red; very probable oil lands, colored green; probable oil lands, colored blue. Of the oil value of the first two classes there is very little doubt. The third depends in part upon the continuance of normal dips and conditions, but in addition it represents untested anticlinals which show good indications of

oil." You had in mind at that time the work which had been done by Mr Owen in the field, did you not?

A A later work than this, yes sir.

Q A later work than this?

A Yes sir.

Q Did Mr Owen furnish you with maps later than this and before September 21st?

A Furnished me with maps in answer to my letter of June 11, 1903.

Q Are those the maps which you brought here with you?

A Those were the maps that were presented in evidence this morning, yes sir.

Q You also had in mind this Exhibit 157, did you not?

A In a way.

Q Clearly showing the anticlines in that field?

A Yes sir. [2443]

I did not make a detailed study myself excepting the field around McKittrick. I hadn't been in the Elk Hills or the Buena Vista Hills or the Midway at that time. Under certain conditions I regarded at that time anticlinals as good physical evidence in an oil field of the presence of oil, petroleums. The conditions would depend entirely upon the facts as I found them or understood them from my assistants. When an anticlinal, which in addition to being an anticlinal, shows indications of oil I thought it was a good one. It might and it might not be a fact that when I found an anticlinal in lands which were in the immediate vicinity of oil lands, proven oil lands, it would be an

indication to me of possible oil land; it would at least induce me to look into it if I had any interest in it. So far as I know that anticline running across township 30 south, 23 east, passing through sections 19, 29, 25 and 27, was an untested anticline but it does not fall within the description which I gave Mr. Kruttschnitt of probable oil lands where I state "It represents untested anticlinals which show good indications of oil. Defendants' Exhibit 115 is a map that Mr. Owen obtained from the Land Department of the Southern Pacific Company in September, 1902. There appears upon this map in the legend "All shaded tracts, reserved from sale, because in or near oil territory". The shaded tracts in township 30-23 are sections 3, 5, 7, 9, 11, 13, the northwest quarter of 17, northwest quarter of 19 and all of section 31 and the shaded tracts in township 30 south, 24 east, as shown by this exhibit are sections 1, 7, 17, 19, 21, 23, 25, 27 and [**2444**] 35. There is nothing on that map to show one way or the other, on the date of the delivery to Mr. Owen of this map, or just prior to that time when this map had been constructed, that the lands in this suit appear not to have been patented nor does it show the patenting of sections 29, 33 and 31 in township 30, 24.

Q Now, will you show, beginning at the Buena Vista Lake, the nearest lands to the Elk Hills, and particularly the lands in this suit, which were shaded, beginning at Township 31 South, Range 24 East, beginning at this end of the lake, that is, along here? (Indicates)

A 15, 17, southwest quarter of 7.

Q Now, in 31-23?

A South half of 13, all of 15 and the east half of 17, all of 9, 5.

Q Now, the lands which you have described completely enclosed on the north, the northwest and the south and the west, the lands in this suit, did they not?

(The last question is read by the reporter.)

A They do.

Q Those were the lands which had been reserved from sale because they were in or near oil territory in 1902, is that correct?

A According to the legend of this map, but they were a part of a blanket reservation, general reservation.

Q Yes, they had been reserved from sale, had they not?

A They had been reserved from sale. [2445]

Q And you so understood from Mr. Treadwell?

A I had no knowledge from Mr. Treadwell of what lands were reserved. This is my own information as to what lands were reserved.

Q Now, with reference to the line of oil outcrop along the eastern flank of the Temblor Range, running from McKittrick in a southeasterly direction towards Sunset, how much further away is the nearest land which was then reserved by the railroad company from sale because in or near oil territory, in Township 30 South, Range 24 East, than the further-

most lands from that line of outcrop of the lands in this suit?

A Well, I never estimated it.

Q Well, it would be at least six miles, wouldn't it? It would be across a township?

A It would be across a township.

Q And that would be six miles, wouldn't it?

A In that location, No. 1, it would be six miles.

Q And also in this location here it would be six miles?

A It would be six miles from that line.

Q Then when you took charge of the geological affairs of the Southern Pacific Company in California in reference to the oil lands of the Southern Pacific Railroad Company, you found that it had been the policy, which you say you did not disturb after you took charge, to hold in reservation from sale, because in or near oil territory, all of the lands which were owned by the Southern Pacific [**2446**] Railroad Company in Township 30-23 and in Township 30-24?

A That was their policy.

Q And you found that to be a fact, did you not, Mr. Dumble?

A Yes sir.

Q Now, if the lands in suit had been patented at that time, and basing your answer solely upon what you know of that reservation order, what you were told by Mr. Treadwell, and upon that exhibit which you yourself brought into court, those lands would most certainly have been reserved with the others, would they not?

A If a blanket reservation had been put on cover-

ing all lands in the valley as that was it would certainly have covered any lands they might have had in 30-23 or 30-24.

Q Yes, and would certainly have covered the lands in this suit?

A Unquestionably.

Q So that if the patent had then been issued to the lands involved in this suit and you had found that policy in effect, reserving those lands because they were in or near oil territory, you would not have disturbed it, would you?

A I would not.

When you ask me if Mr. Owen, to my knowledge, reported on patented lands in the West side oil fields and by patented lands you mean those which would inure to the Railroad Company if agricultural, my answer is: [**2447**] "I can't give you the date and the scope of any such report. My recollection is that Mr. Eberlein made a request regarding certain lands and that Mr. Owen answered it." I can't tell you what lands the request was made with request to. I suppose they were unpatented lands. They were in 31-24 as I remember but I haven't the data here to give you. I don't know whether or not they were selected by the company. I have no personal information regarding that. I remember a telegram from Mr. Eberlein and one from Mr. Owen subsequent to 1904. I have not got those telegrams. The telegram of Mr. Eberlein concerns lands in the northerly part of 31-24 and it concerns lands which had not been patented, as far as I know. My recollection is that Mr. Eberlein wanted

to know if they were oil lands. The telegram of Mr. Owen was that they were not oil lands. I don't know whether or not these lands were ever selected. I don't remember if Mr. Owen ever examind the north half and the southeast quarter of section 7, of 31-24 and made a favorable report upon it as oil lands at a time when those lands were not patented. I have no personal recollection that Mr. Owen made a report to me in 1905 stating that those subdivisions of section 7, 31-24, were oil lands. I do not recall the letter or report of July 16th, 1905, addressed to and headed "Oil Lands" in which Mr. Owen stated "I have included all sections where parts of sections are considered oil lands and the rest doubtful." When you ask me to read from this report what description Mr. Owen considered as oil land [**2448**] in section 7 of 31-24, my answer is "On this sheet it says the North half and southeast quarter of section 7, 31-24, four hundred and eighty acres, but so far as I know I never read that letter. I do not know if at that time the Southern Pacific Railroad Company by patent owned the north half and southeast quarter of section 7. The maps and exhibits in this case don't show it as being patented by them but I have no personal knowledge of it.

Q Mr Dumble, Mr. Eberlein testified that beginning with the year 1904 he began making protest to you in writing about your examination of unpatented lands. I am reading from page 1836 of the record, which reads as follows, beginning at the top of the page: "A—I don't remember a discussion with Mr.

Dumble. I know I made protests in writing to him; but the discussion was had with other people—not with Mr. Dumble. Q—Well, with whom? A—Well, the matter was discussed with Mr. Kruttschnitt, Mr. Cornish and Mr. Markham, as I remember it. Q—Beginning about what time? That is, what year? A—It began in this year of 1904. Q—Right after this lease was proposed? A—Yes; I think about that time. Q—Well, what was the subject of that discussion? Did you ever make any protests, in any of those discussions, against the examination of lands by Mr. Dumble? A—I objected to Mr Dumble's examination of unpatented land without any reference to the department, for the reason that I was fearful that it might charge us with notice of the mineral character of the lands." Now, does that refresh your recollection in any way about your discussion with Mr. Eberlein why that lease [**2449**] should not be made public at a time when he had under selection the lands in this suit, and before the patent issued?

A I don't remember of ever having received any notice of the kind from Mr Eberlein at any time.

I had no papers that I can find, or any letters from Mr. Eberlein protesting about examination of the unpatented lands. Mr Eberlein's answer "I objected to Mr Dumble's examination of unpatented land without any reference to the department, for the reason that I was fearful that it might charge us with notice of the mineral character of the lands", does not refresh my recollection about the conversation with Mr. Eberlein in room 71 just prior to my letter

to Mr Bancroft. I have used every method in my power to recall something of that conference but I have been absolutely unable to do so. I don't remember that Mr. Eberlein at any time said to me that the examination by my geologists of unpatented lands would lead to bad results in the Land Office, that is to say that it would result in the company losing lands which had been selected as agricultural lands, and would tend to embarrass me and my men and perhaps make me a witness against the company in mineral contests thereafter. I don't remember any such statement from him.

Q "Mr Dumble didn't give us any information at all—never did—didn't cooperate in any sense at all—and I heard or had reason to believe that a good deal of examination was going on of granted lands, and such of those as were unpatented, and believed that it was very bad policy [2450] to examine before patent issued, especially without any reference to the land office." Now, does that refresh your recollection as to the meaning of your expression in your letter to W. H. Bancroft, of December 7, 1904, "I have had a conversation with Mr Eberlein, and it seems for reasons of policy regarding the certain unpatented lands, that it will be best not to execute the lease of lands between the S. P. R. R. Co. and the K. T. & O. Co. at present." Was that the policy as you now recollect it that you referred to?

A I have explained that Mr Eberlein was at the head of the land department and I was head of the oil producing department. I had nothing to do with

any lands which were not oil lands, and which were owned by the company, but as being head as you might say, a coordinate head, and working for the same company, I had no desire to throw any impediments in Mr Eberlein carrying out his own views in his own work. Furthermore, as head of the oil producing department, I had full—I was in full possession of all the lands which I thought were of any value for oil purposes, and the signing of that lease or the leaving it unsigned made no difference in my work, and consequently, as a matter of policy, it was perfectly immaterial to me whether it was signed or not, and if it would suit his purposes better, I was perfectly willing that the signing of it should be deferred.

Q Well, I refer particularly, Mr Dumble, to the statementby Mr Eberlein at page 1836 of the record where he says he believed that it was very bad policy to examine before patent issued, especially without any reference [**2451**] to the land office, and I ask you whether that policy was the same policy which you had in mind when you, on December 7, 1904, said to Mr Bancroft in your letter, "and it seems, for reasons of policy regarding these certain unpatented lands, that it will be best not to execute that lease."

A So far as I know, it was not a fact, and I have nothing to do with that policy.

Q What policy did you refer to?

A I just explained in my former answer.

Q That is, the policy I mean, what policy with

reference to unpatented lands was it that you referred to?

A I have no policy with regard to unpatented lands.

Q Well, you used the expression, "and it seems for reasons of policy regarding these certain unpatented lands;" that is your very expression. What did you mean by that?

A possibly that didn't express—I don't—I can't say with absolute certainty just what I was thinking at that moment, but the idea that I am trying to get clear is that the policy was not anything of mine regarding the unpatented lands, but between our two departments, letting Mr Eberlein do his own work; whether that was exactly the point in the conference, I am unable to say.

Q That letter was based on the conversation that you had just previously had with Mr Eberlein?

A Yes sir.

Q And in that conversation Mr Eberlein had expressed to you his belief as to the hazard of making public such a lease, had he not? [2452]

A Probably had, according to that paper.

Q And that hazard referred, of course, as you understood it, to these unpatented lands, as to which the patent hadn't yet been issued; you clearly understood that, didn't you, Mr. Dumble?

A It is so stated, I think.

Q Now, you yourself believed, did you not, at that time, that it was best not to execute that lease until the patent was issued, did you not?

A Personally I didn't think it made a bit of difference.

Q And so you used the language—

A But I deferred to his wishes in the matter.

Q Just a moment. So you used the language, did you not, because of that, that it was best not to execute that lease for the present, or at present; that is what you had in mind, wasn't it, Mr. Dumble? Be fair.

A My answer is made in that. I thought you were through with your question.

Q Yes. I wanted your answer to that question.

A The answer is just as I have made it there, complete, as I believe.

Q That is, you think you have answered the question?

A I think I have answered the question; yes sir.

Q Now, in what respect did Mr Eberlein, in his talk with you, Mr Dumble, believe that it was hazardous to execute that lease at that time?

A I don't remember. [2453]

Q Does none of this matter which I have been reading to you here for the last half hour refresh your recollection as to what was in that conversation?

A My mind is an absolute blank regarding that conversation.

Q Is your mind in the same condition, Mr. Dumble, with reference to your conversation with Mr. Stone about pressing the selection of these lands, as he has stated?

A I never met Mr Stone at all in connection with this, so far as I know.

Q When Mr Stone said in his testimony, under oath, that you came in and pressed the selection of these lands for reasons best known to yourself, namely, because you believed them to be petroleum, did he misstate the truth?

A I did not see Mr Stone in regard to the selection of any lands in 30-23.

Q Well, I have stated to you what he testified? Did he misstate the truth?

A I have made my statement also.

Q What is that?

A I say, I have made my statement also.

Q Well, is his testimony true, that you did come in and urge the selection of these lands?

A I did not go in or make the selection of the lands.

Q Did you have any conversation at all, at any time before the issuance of this patent, with George A. Stone about these lands? [2454]

A I don't remember ever to have spoken to George A. Stone in regard to these lands.

Q You say you don't remember. Might it not be true, now, as you now have your memory refreshed, Mr. Dumble, that you did actually go in there and urge a selection of those lands to Mr. Stone and have now forgotten it?

A No sir.

Q Did you discuss the selection of these lands

with George A. Stone before the date of the patent, December 12, 1904.

A Not to the best of my recollection, unless—not— I did not discuss with him the selection of these lands. What conversation there may have been after these maps showing that they had selected them and they were trying to get the patents on them—that was October 8th that those maps came—I can't say; but certainly nothing to—I don't remember having seen or spoken to him regarding them even at that time.

Q Now, Mr Dumble, is it not possible, now, after having your mind refreshed, your recollection refreshed, from what I have read to you, and the testimony of Mr Stone, that you did discuss with Mr Stone these lands and the acquisition of the lands by the railroad company, before the patent was issued, December 12, 1904?

A I don't remember ever speaking to any one but Mr Eberlein concerning them.

Q You spoke to Mr Eberlein concerning them?

A This conversation in room 71 is the only thing that there was, as shown by documentary evidence. [2455]

Q Now, didn't you think at that time, when you discussed it with Mr Eberlein, Mr Dumble, to be perfectly fair and candid, now, that it was an extremely hazardous thing to select these lands, in which you knew there was an anticlinal structure as early as 1903, and which you knew had been examined by Mr Owen—didn't you regard it as extremely hazardous

at that time to select those lands under an agricultural grant?

A Personally I had nothing to do with the selection. My idea of them as oil lands was that they were of no value whatever, and that they had no value except as agricultural lands. Mr Owen's examination of them was a very brief reconnaissance, but our idea from the beginning was that they were not oil territory.

Q That is, you thought that you would be safe in taking those lands over to the company under an agricultural grant?

A I was handling the oil-producing end of the business. It didn't matter to me, in that connection, whether they were patented to the company or were not patented to the company, and it was a matter that was entirely outside of my business in any way.

Q Now, Mr Dumble, by that you mean that you didn't feel charged with any responsibility as to the making of the affidavit necessary to support the application for the patent, that is, the non-mineral affidavit?

A I had nothing to do with it. [2456]
I felt no responsibility in respect to that matter but I would have been willing, I think, at that time to have made a non-mineral affidavit, provided I had examined it and felt about it as I did feel about it. I had not examined it. I did not know Mr. Stone in 1903 and therefore it is not possible that I went to Mr Stone unknown to Mr Eberlein and advised him to select those lands as promptly as possible because

I believed them to be petroleum lands. To the best of my knowledge and belief I did not talk with Mr Stone prior to August 31st, 1904, about the selection of those lands in suit. I never at any time had any knowledge of any application being made for these lands or anything about such application until the maps were received in October, 1904. I know Mr Kruttschnitt fairly well and have often met him in business and in a social way. I don't recall the time when Mr Eberlein discharged Mr Stone. Sometime during last year I heard something about Mr Stone writing a letter to Mr Kruttschnitt in 1908 in which he threatened that unless he was re-in-stated in his position that he would disclose the irregular selection of these lands to the Attorney General or lay the matter before the public preses. I may have gotten this information from the transcript but that is the first I ever heard of it. I know James M. Shaw, a witness produced for the defendant in this case. He was employed by the Rio Bravo Oil Company. He was, first, field foreman, I believe at Sour Lake, and afterwards assistant superintendent and superintendent of the Rio Bravo Oil Company. Mr C. H. Markham, to whom I [**2457**] have referred in my testimony was at one time President of the Rio Bravo Oil Company, and I think at the same time was Vice-President of the Texas and New Orleans Railroad, at least he was in charge of that railroad. The Texas railroad was one of the Sunset Central lines in Texas. By the Sunset I mean the Atlantic system of the Southern Pacific Company, and Mr. Markham was in charge

of the Texas division, as I remember, including all those lines. There was a close business relationship between the Rio Bravo Oil Company and the Texas and New Orleans Railroad Company. The Rio Bravo Oil Company was organized to handle the oil business for the Southern Pacific Railroad Company in Texas. On one or two occasions Mr Shaw, Mr Markham and I visited the oil fields in Texas while Mr Markham was in charge. We went there frequently. Mr Markham was a very energetic man and he was liable to call on me most any day to take a trip with him in his private car into the oil fields. Mr. Thomas J. Griffin was employed by the Rio Bravo Oil Company and was under my instructions. I know nothing about his being Vice President of the Spindletop Power Company prior to that time. We received a great deal of oil from the Spindletop Power Company. They were delivering oil everyday, I think. I don't know anything about how Mr. Griffin was regarded. I thought his work in a general way fairly good. I let him go easily without having any words with him in any way. My relations with him were pleasant even after he left. I never had any trouble with him. I didn't go to Welsh with Mr Markham during the time Mr Griffin was there. I couldn't have had any conversation at that time with Mr Markham as he was in San Francisco. Mr Markham on that occasion [**2458**] did not say that he didn't like the way that fellow Eberlein is acting in Frisco and that he was not going to make the necessary affidavits to certain lands in California. I did not say

on that occasion that I was going to San Francisco in a few days and if Mr Eberlein didn't make an affidavit I would or see that he did it. I did not say on that occasion that I thought I could bring enough to bear on him that he would only be too glad to make the affidavit. I knew Mr Stephens. He assumed charge of Treadwell's operations before I did. He was between Treadwell and me. The voucher which you show me is one produced by the defendants' in this case and is from the files of the Rio Bravo Oil Company, of which I was then Vice President. This voucher reads "Paid Vouchers, Book of the Rio Bravo Oil Company, in volume dated from October 6th to December 18th, 1903, treasurer's No. 1047;" this voucher is dated October 15, 1903. This voucher refreshes my recollection that the Spindletop Power Company up to October 12, 1903, had delivered ninety thousand dollars worth of oil to the Rio Bravo Oil Company, of which I was Vice President. The voucher last referred to was read in evidence and was in words and figures, as follows, to wit: [2459]

FORM 6

DEPARTMENT No.....AUDIT No. 1114

TREASURER'S No. 1047

HOUSTON, TEXAS, Oct. 15th 1903

RIO BRAVO OIL CO.,

To Spindle Top Power Co. Dr.

Registered in Beaumont, Texas.

October 1903

1903			
Oct. 15	For oil delivered at Sour Lake to Oct. 12th, 1903, as per statement of J. M. Shaw, Field Manager, 361336.4 bbls @ 25c	90334.10	
	Less cash advanced and interest on notes	25507.39	
		64826.71	
	Less payments on a/c oil delivered	61477.93	
	Balance due 10/12/03		3348.78
	Amount advanced on oil to be furnished in accordance with terms of contract		5447.36
			8796.14

(Purple Stamp) CREDITED to TREASURER No. 249 By CASH ABSTRACT.

(Red Stamp) THE SOUTH TEXAS NATIONAL BANK. PAID OCT. 17 1903. HOUSTON, TEXAS.

Charge:

	Oil Purchases—	3348.78
	Spindle Top Power Co.	5447.36

(Red Stamp) Houston, Texas, Oct. 15 1903 190
If presented within 30 days from date

hereof, this Voucher when properly dated and receipted, becomes a "Sight Draft" without exchange, on

B. C. CUSHMAN, Treasurer,
HOUSTON, TEXAS.

Payable at the option of the holder at the

COMMERCIAL NATIONAL BANK,
HOUSTON, TEXAS.

EXAMINED BY
J. W. McCUTCHON. [2460]

APPROVED: I hereby certify that the above account is correct:
J. W. McCUTCHON

CALCULATIONS CORRECT:

APPROVED: (Purple Stamp) E. T. Dumble, G. T. C. Vice President

APPROVED: C. H. Markham President B.

The above account has been examined, found correct and is hereby approved for payment.
C. B. Seger.
Secretary.

RECEIVED, October 16th 1903, from RIO BRAVO OIL COMPANY, xxxEight Thousand Seven Hundred & Ninety Six & 14 DOLLARS.

(Rubber Stamp) SPINDLE TOP POWER COMPANY,
Per M. J. Bass.
(A) Treasurer.

NOTE,—The Receipt to this Voucher must be dated and signed by the party in whose favor it is made, or when signed by another party, the authority for so doing must in all cases accompany it.

(Endorsed on back) (Red Rubber Stamp)
Previous endorsements guaranteed.
Pay to the order of
SOUTH TEXAS NATL. BANK.

SOUTH TEXAS NATL. BANK.
AMERICAN NATIONAL BANK,
BEAUMONT, TEXAS,
HOUSTON, TEXAS.
CHAS. H. STROECK, Cashier.

The Rio Bravo Oil Company had a contract with the Spindletop Power Company in connection with the moving of the plant of the Spindletop Power Company from Spindletop to Sour Lake. I don't remember positively the terms of that contract, but all of these vouchers are part and parcel of the fulfillment of that contract. This voucher No. 1082 was approved by me as Vice President. It is dated October [**2461**] 20th, 1903, and was cash advanced account fuel oil delivered during October, 1903, $2000. This was on the authority of C. H. Markham, President, 10/20/03. While the voucher states that the money was advanced it was simply a payment made during the month for oil delivered, it being the custom to pay for oil once a month and usually about the tenth of the succeeding month. This voucher, treasurer's No. 1163, reads "Cash advanced account fuel

oil to be delivered on contract, authority Mr C. H. Markham to Spindletop Power Company." This cash was advanced by the Rio Bravo Oil Company to the Spindletop Power Company for fuel oil to be delivered on contract on the authority of Mr C. H. Markham. It was approved by me and the money was advanced. It bears the stamp of my name with the initials of my chief clerk. Treasurer's No. 1216, is a voucher dated November 9th for cash advanced Spindletop Power Company account fuel oil to be delivered $2,000. This was made on the authority of C. H. Markham and approved by my office but not signed by me. Mr C. B. Seger was the Secretary of the Rio Bravo Oil Company during these proceedings and I recognize his signature and that of Mr Markham on this voucher. This treasurer's voucher No. 1261 is dated November 16th, 1903, and is on account loan the Spindletop Power Company as evidenced by note Spindletop Power Company to Rio Bravo Oil Company of November 16, 1903, made in accordance with the terms of contract of November, 16, 1903, $6000. This was approved by the Rio Bravo Oil Company by C. B. Seger, Secretary, and Mr. C. H. Markham, President, and by my office but no signed by me [**2462**] personally. I recognize on this voucher the signatures of Mr Markham and Mr Seger. The $6000 mentioned in that voucher was receipted for by the Spindletop Power Company by M. B. Bass, president. I would surely conclude that this money was advanced. I know that there was a contract between the Spindletop Power Company and

the Rio Bravo Oil Company made by Mr Markham as president and Mr Bass as president. Voucher No. 1283 of the Rio Bravo Oil Company reads: "November 23, 1903, for cash advanced account fuel oil to be delivered $3000, charge Spindletop Power Company". That voucher was approved by C. B. Seger personally. I think the signature of Mr Markham is stamped on the voucher. Mine is not but it was approved by my office. That money was advanced. M. B. Bass, president. Voucher No. 1436 of the Rio Bravo Oil Company to the Spindletop Power Company, debtor, reads: "December 15th, 1903. For cash advanced to cover order of J. W. Swain, agent, for pumping charges on oil now in our storage tanks and this day bought by this company as per telegram from L. W. Brown, December 15th, 1903. The balance due will be paid later when the final rendering of the opening account with you will be made $3,000." That was approved by Mr A. D. McDonald for Mr Seger and by Mr C. H. Markham and by my office. I did not sign in person. Mr McDonald is now the auditor of the Southern Pacific Company, defendant in this case. He was auditor at San Francisco but has been transferred recently to New York. I don't know if he is auditor at the present time. Mr McDonald has been the [**2463**] auditor of the Southern Pacific Company in this case up until the first of January. Mr Seger is connected with the Union Pacific Railroad, I understand, and Mr Markham with the Illinois Central. Money was paid to the Spindletop Power Company as appears by this receipe signed

"Spindletop Power Company by M. B. Bass, President." Voucher No. 2021 of the Rio Bravo Oil Company to the Spindletop Power Company, debtor, Beaumont, Texas, reads: "February 18, 1904. Fee paid clerk of Harden county, Texas, for revording deed of trust from the Spindletop Power Company to Maxwell Evarts, trustee, for the use of this company, $7. Charge oil purchases. This amount was deducted from payment for oil delivered, voucher No. 1844." That voucher was approved by A. D. McDonald for the secretary, and by F. L. C. for Mr Markham and G. T. C. for myself and that amount was credited to the Spindletop Power Company. I should say from these vouchers that during the year 1903 the Spindletop Power Company had business with the Rio Bravo Oil Company in excess of one hundred thousand dollars.

Q I call your attention to a statement made by the witness Charles W. Eberlein, who was acting land agent of the Southern Pacific Railroad Company, defendant, at the time it applied for patent to the lands in this suit, at page 1993 of the transcript, in which he was commenting on the protests which he had made because of the activity of you and your men in examining unpatented lands, and particularly with reference to what suspicion he might [**2464**] have had in his mind as to your knowledge of the mineral character of those lands at the time you wrote the letter of September 3rd, 1904, to Judge Cornish. He says, "I think it is a very reasonable thing for any man charged with the duties that I was charged with, the

duty of making a non-mineral affidavit on the very best information he could obtain, as I did, to have the feeling that some man examined those lands and charged the company with notice, but without charging me with notice." Now, does that refresh your recollection at all as to your conversation with Mr Eberlein, which formed the subject of your letter to Mr Bancroft of December 7, 1904?

A The reading of that in the transcript was the first I have ever heard of it.

Q Well, the question is whether it now refreshes your recollection, more particularly as to what occurred in that conversation which you had with Mr Eberlein?

A It had nothing to do with my conversation, so far as I know.

Q Is your mind still a complete blank upon your conversation with Mr Eberlein?

A I don't remember anything of that at all.

Q I say, is your mind a complete blank still on the subject of your conversation with Mr Eberlein in room 71?

A It is, along all lines that have been brought out, so far.

Q Didn't Mr Eberlein at that time tell you in that conversation that you were doing a very dangerous thing in examining these lands in suit before they went [2465] to patent, and getting reports of their mineral character?

A He did not.

Q Especially at a time when he had made a non-mineral affidavit?

A He did not, for the simple reason that I hadn't made such examination.

Q Now, I read from the same page further, testimony of Mr Eberlein: "However, taken in connection with the protests I made thereafter, I may have had a feeling that Mr Dumble had knowledge of lands which I didn't have," Does that refresh your recollection as to what occurred in Room 71 with Mr Eberlein?

A No sir.

Q That meeting which you had with Mr Eberlein is the same meeting which you referred to in Exhibit 148 of the letter of March 15, 1907, when you were calling attention of Mr Eberlein—

Mr Lewers—What page is that?

Q By Mr Mills—(Continuing)—to refresh his recollection of knowledge of the K. T. & O. Company lease, was it not?

A What is that?

Q Page 5976. I will read it to you. This is your explanation in the record—or in the letter; (Reading) "Early in December we had a further conference on the matter, and you explained that you were rushing certain lands for final patent, and that the immediate execution [2466] of the lease showing our idea of what were oil lands might interfere with you, and we agreed to defer the execution until that danger was past." That was the same conversation was it not?

A That was the same conversation, yes sir.

Q Now, how did you know, Mr. Dumble, that Mr. Eberlein was rushing these lands in suit to patent?

A I said he explained in this letter

Q Well, how did you know that Mr Eberlein was rushing these lands in suit to patent?

A The only knowledge I had was that given here, he explained to me that they were doing so.

Q Mr Eberlein explained that to you?

A That is what he states, yes sir.

Q Now, what did he say about rushing the lands in this suit to patent at that time?

A I can't tell you.

Q Don't you recall anything about that at all?

A I don't recall a word of the conversation. It made so little—

Q Give the substance of it, Mr Dumble.

A I can't give you any further than this, because it made so little impression on me at the time that I have never been able to recall it.

Q Well, but that occurred in December, that conversation, occurred in December, 1904?

A Yes.

Q Prior to December 7th?

A Yes. [2467]

Q And yet you remembered enough of it Mr Dumble, so that you recalled it to Mr. Eberlein about three years later March 15, 1907?

A I had the files in front of me just as I have them now.

Q Well, what files did you have which referred to Mr Eberlein's rushing these lands to patent?

A Well, the statement there, "rush" is made—may have been stronger than he used at the time, as far as I remember now. I don't remember the term he used, but in writing this letter—

Q Well, how do you come to recollect it three years after the event, and you now say that your mind is a complete blank on it?

A I say in regard to the words that were used.

Q I don't care anything about the words that were used. Give the substance of the conversation.

A The substance is given just there, as far as I have any knowledge of it.

Q What made you recollect that he was rushing these lands for patent for three years, and that you now forget it when I ask you about it?

A I have not forgotten anything that is here. I am giving you the same data exactly that I had at that time.

Q Now, wasn't it a fact that you, yourself, were attempting to have Stone rush these lands to patent, whether Mr Eberlein made objection or not?

A It was not.

Q You have stated, Mr Dumble, that the Kern [2468] Trading and Oil Company treated the lands which were embraced in the proposed lease of August 2nd, 1904, and which remained unexecuted by the Southern Pacific Railroad Company as appears by the evidence, until December 12, 1907, as property in which they had some estate or interest; they were

mining and extracting oil and operating those lands for oil purposes; that is true, isn't, according to your own evidence?

A They treated them as though that lease had been executed.

Q Now, you knew at that time, did you not, from your own official information as a railroad man, and if not by that, by conversations with Mr Markham, who was an official of the Southern Pacific Railroad Company, that Mr Eberlein was the only man empowered by the board of directors of that company to alienate lands belonging to the Southern Pacific Railroad Company?

A I did not.

Q And you concurred in Mr Eberlein's wishes in delaying the execution of the lease until the patent could be issued? By that you knew, didn't you, Mr Dumble, that Mr Eberlein was the only one in authority who could execute legally that lease of August 2nd, 1904?

A I don't know that I understood it in that way.

Q Well, how did you understand it?

A So far as I am aware, I had no definite knowledge of the exact authority Mr Eberlein had in that regard; I simply knew that he had to sign leases of that character, [**2469**] but it was my understanding that they were subject to the management—

Q Well, Mr Dumble, you believed, didn't you, from your knowledge as a man of affairs, a man with considerable railroad experience, and as a scientist, and at the head of the oil producing department of a

great railroad company, that it was necessary to have some legal instrument in order to operate those lands, didn't you?

A Certainly.

Q And yet you have stated that the only lease that was ever executed was the lease of December 12, 1907; isn't that true?

A As I understand it, if the lease of 1904 was executed by Mr Markham signing it.

Q Oh, you thought that one party to a contract could execute it, and that would make it a legal instrument?

A Where the same party was the head of both companies, I should think so.

Q Well, Mr Markham was not empowered at that time to execute a lease for the Southern Pacific Railroad Company, was he?

A That I don't know.

Q Well, didn't you know that Mr Markham had presented that lease to Mr Eberlein for execution, and that he refused to execute it?

A I did not.

Q And didn't you agree with him as late as December 7th, 1904, that it ought to be delayed, that Mr Eberlein was right in delaying it until the patent was [2470] issued?

A December 4th was considerable after Mr Markham had signed it, though.

Q Mr Markham, according to the testimony in this case, and according to the proposed lease which

is in evidence, signed that lease on August 2nd, 1904, for the Kern Trading and Oil Company?

A I remember now it was at that time, yes.

Q And handed it to Mr Eberlein to be signed on behalf of the Southern Pacific Railroad Company, and you knew that Mr Eberlein had refused to sign that lease?

A Later.

Q Yes. Now, according to your idea, then, the Kern Trading and Oil Company were operating the lands, as you say, from April, 1903, until December 12, 1907, without any instrument at all?

A The Kern trading and Oil Company was simply a department of the railroad company for handling the fuel oil.

Q Oh, it was a department of the railroad company?

A Made into a subsidiary company for convenience of accounting on management.

Q That is, it was—

A To take the—

Q Pardon me. It was a department, you say, of the Southern Pacific Company?

A It was the fuel oil department of the Southern Pacific Company.

Mr Lewers—Mr Mills, I think you inadvertently [2471] made the statement, "April 1st, 1903"; the testimony is April 1st, 1904.

Mr Mills—Yes, change that to 1904.

Q Now, Mr Dumble, the Southern Pacific Company did not pretend to own those lands did they?

A The Southern Pacific Company operated Section 3 in the Kern River field up to the time—from the time of its—of the first well that was put down on it until the time that the Kern Trading and Oil Company took it over.

Q But these lands as you have testified fell within the grant to the Southern Pacific Railroad Company?

A Yes sir.

Q You understood that, didn't you?

A Certainly.

Q Now, how do you account for the fact that the Kern Trading and Oil Company, which you say was a mere department of the Southern Pacific Company, had any authority whatever upon the lands of the Southern Pacific Railroad Company and mined and extracted oil for three or four years, without any legal authority?

A I don't know that that side of it ever appeared to me. I was instructed by the officers of the company to do the work, and I did it.

Q And wasn't that about the way you had these lands examined, was by instructions, and you paid no further attention to it?

A No sir. [2472]

I had nothing to do with any instructions in regard to the examination of any lands whatever that were not company lands. I did not regard as company lands, lands which would inure to the railroad company if they applied for them under legal application. Referring to my letter to Mr Eberlein of March 15th, 1907, in which I state "and that the im-

mediate execution of the lease showing our idea of what were oil lands might interfere with you and we agreed to defer the execution until that danger was passed", when you ask me if I did agree in that conversation with Mr Eberlein to avoid that danger by deferring execution of the lease my answer is "We agreed to defer the execution of the lease as is stated there". I recall that in 1907, when I wrote that letter as I have the evidence in my letter to Mr Bancroft that Mr Eberlein had explained to me that he was rushing these lands in suit to final patent, and when you ask me if I recalled that from my mind and not from anything in my files, my answer is "I wrote according to the impression I had at that time and what I stated in that letter was my impression of Mr Eberlein's conversation at that time. The Kern Trading and Oil Company, while it was trespassing upon the lands of the Southern Pacific Company during the period from April 1, 1914, until the lease was executed, December 12, 1907, paid royalty to the Southern Pacific Railroad Company for every barrel of oil ever produced. I know that of my own knowledge as I signed the vouchers for it. [2473] Myself and my office has signed every voucher. That proposed lease didn't reduce any royalty whatever. The railroad company had been receiving under some private leases a one-fifth royalty. Some of the leases were one-sixth and some were one-fourth. Only on lands other than those already leased was there a one-tenth royalty. The lands already leased were taken over subject to the terms of those leases.

The Southern Pacific Railroad Company received at all times the royalty as agreed upon by its original lessees, or such modifications as had been made with the consent of the Southern Pacific Land Department and I surely meant to say that the Land Department of the Southern Pacific Railroad Company from April 1, 1904, until December 12, 1907, when that lease was executed by Mr Markham and Mr Willcutt, for both companies, consented to the exploitation of their lands by the Kern Trading and Oil Company. Mr Eberlein was at the head of that department all that time. I do not know other than what may appear in these papers, that Mr Eberlein recognized the rights of the Kern Trading and Oil Company upon any lands within that grant during that entire period of time and that he instructed his clerks not to recognize the rights of the K. T. & O. to go upon those lands. I have read Mr Eberlein's testimony and I believe he did so testify and although he has testified to that under oath I still say that I know nothing of his not consenting. We went on and did the work and made our reports regularly direct to his office and when I just stated that the Land Department [**2474**] consented I was speaking of the changes of these leases, alterations in rates of royalty. I don't know personally that Mr Eberlein never recognized any lease between the railroad company and the Kern Trading and Oil Company during the time of his administration of that land grant. I have since learned it here and have seen it in the sworn testimony of Mr Eberlein. Mr Kruttschnitt was assistant to the President

of the Southern Pacific Company at that time and it was under his instructions that the operations of the Kern Trading and Oil Company were begun and carried on. When Mr Markham came in it was continued under him. The lease was prepared and submitted and I carried out the instructions given me with regard to it. It was not exactly my understanding, late in the month of March, 1907, that all the operations of the Kern Trading and Oil Company upon those lands had been done over the protest of Mr Eberlein as such agent and upon the instructions of Mr Kruttschnitt and Mr Markham without entering into any legal form. While the lease was held up in December, 1904, I was not aware that it had been held up entirely. I didn't find it out until 1907 when I heard it. In 1907 when there had been no legal form entered into by which the Kern Trading and Oil Company was authorized to operate the lands of the Southern Pacific Railroad Company I don't know that I knew it had been done over the protest of Mr Eberlein excepting so far as this correspondence might mean something of that kind. I wrote to Mr Eberlein and told him on March 15, 1907, "In the meantime, however, under instructions from Mr Kruttschnitt and Mr Markham, the Kern Trading and Oil Company, on April 1, 1904, took charge of [2475] entire oil situation including lands covered by this lease and has operated under the terms of the understanding which was to have been put in legal form long ago". That letter was written after I had learned that that lease was in existence. I know

that the Kern Trading and Oil Company had been operating the lands of the Southern Pacific Railroad Company without any formal lease at all for that period of time and when you ask me if I don't know as a matter of fact of my own knowledge that Mr Eberlein had refused to recognize the lease, and that was evidenced by the pipage charges, royalty oil, which was sent into his office, my answer is "I don't know that that was in anywise a failure to recognize the lease. There was no mention of pipage charges in the lease. I did not know that that was the only evidence that Mr Eberlein had that somebody outside of his department and without authority, was exploiting those lands because there were monthly reports made to Mr Eberlein of the production on all lands that were being handled by the Kern Trading and Oil Company and when you ask me if I didn't understand at that time from what I knew of the operations of the Kern Trading and Oil Company, that without the formality of a legal instrument authorizing it to do so the Southern Pacific Company exercised stepfatherly care over the Southern Pacific Railroad Company lands and treated those lands as its own during the year 1903-1904, my answer is "I don't know what they did with the lands generally. The relations of the two companies were unknown to me. I am inclined to think that in the very beginning I personally did not know the difference between [2476] the Southern Pacific Company and the Southern Pacific Railroad Company and when I was authorized by officials of the Southern Pacific Company to go

out and examine lands belonging to the Southern Pacific Railroad Company I treated those lands as belonging to the Southern Pacific Company interests at least. That is to say those lands representing the Southern Pacific Company's interests, and they had an interest in those lands of some kind I suppose. I have identified the letter written to me which was dicta'ed by George A. Stone, sending me a list of lands in this case. That letter was dated October 8th and covered lands that we had already been over. We had the map of 1902 showing what were company lands and the examination of company lands was certainly confined to what was shown there on the map submitted at that time. That map didn't show the lands in this suit in the ownership of either company. On March 25, 1903, Mr Owen sent me the map marked Defendants' Exhibit 157 which showed an anticline running across sections of land in this suit together with the even sections interspersed. The entire examination of that field was between February 3rd and the time of this letter. When I saw that anticlinal curve delineated across the lands in suit I knew that Mr Owen had made reconnaissance of them only. It shows on the map that he at first ran the anticline from section 23 in 30-22 in a southeasterly direction to join on section 5 of 31-23 and had afterwards changed that by pasting a slip of paper across it and by more careful examination had run the anticline across the township and through the lands in this suit. Mr Owen had made a careful [**2477**] enough examination of the lands at that time to be able to

show me where the the anticline was across the unpatented lands which form the subject of this suit and when you ask me from what I have since learned after some ten years of rich geological experience added to what I had in Texas, if Mr Owen made a pretty fair examination of the lands in this suit at that time and fixed the anticline about where it is now, my answer is "Mr Owen was a very remarkable man and he was about as correct as you find them and he fixed the anticline in there correctly" and when you ask me if all the geologists of the Southern Pacific Company since that time for the last ten years having occasion to examine that anticline, have had no reason to change the position placed there by Mr Owen, my answer is "the anticline is on the ground; there is no reason to change it on the map. I have not had occasion to change the map a great distance. It is as accurate as a map will allow. When I said that Mr Owen was a very remarkable man I meant that he had a faculty of carrying underground conditions in his mind more perfectly than any man I ever met and I rated him pretty highly as a geologist up to the time of his death. I want to call attention, though, to the letter in connection with that map in which he says "there is but one oil horizon in this field." In the trips which I took over this land, I mean the oil fields of the West side and Kern River, at the time I went through with Mr Treadwell, we were there two days, just simply a trip in a wagon over the territory. Before Mr Owen went in there my recollection is I had been in there parts of two

days; the first trip and the next trip was after Mr Owen had gone [2478] to California. The second trip though I made was with Mr Treadwell. That was the trip in which I went over that territory. Referring to Defendants' Exhibit 117, my letter of December 4th, 1902, to Mr Kruttschnitt, I said "Present developments in the San Joaquin valley indicate clearly that there are at least two distinct series of oil beds", by that I meant as I stated in the letter, that the oil beds of the west side of the valley were different and a reparate set from those which were found in the Kern River field. I thought there was one set reaching the whole length of the valley inclinding the Sunset, Midway, McKittrick, Temblor, Antelope, Kroninhagen and Coalinga fields.

Q At that time you knew that all of the lands that could be had been reserved from sale, for oil purposes?

A Acting on the—taking my information from that map.

Q Yes. And you so stated to Mr Kruttschnitt?

A Yes sir.

Q That, so far as can be, all of these lands are now reserved from sale?

A Yes sir.

Q Now, you stated in that letter, "I propose to take up their examination in a systematic way during the coming year in order to determine as far as can be done from surface indications and geological structure where oil is to be expected in this region." Did you regard surface indications and geological

structure as the proper [2479] criterions on which to determine where oil would be found at that time?

A They give the best indications we could have of it.

Q Yes. Now, what do you regard as "surface indications", or what did you at that time?

A Regarded those asphalt beds at McKittrick.

Q What else?

A Those were the principal surface indications, outside of geological structure. Actual occurrence of — or occurrence of actual oil seeps, is regarded as being one of the criteria. It is not alawys so.

I regarded a live oil seep as one of the surface indications. I have since had to change my mind but at that time I did. There were several things that I regarded as favorable geological structures. In Texas "domes" we thought to be the most favorable in structure. That was from my experience in Spindletop and the Texas fields and at other places the most favorable structures were the slopes that were not too steep to carry the oil too far away too rapidly along some anticlines, and taking it in connection with other things I regarded an anticlinal structure as a favorable geological indication. At that time, In 1902 I think, if I had found an actual oil seep in a break in section 32, 30-24 and the same was taken in connection with the anticlinal structure found by Mr Owen I would have regarded the lands in that vicinity in the Elk Hills as favorable to expect the occurrence of oil there. I don't know that Mr Owen had found what he regarded [2480] as an oil seep there in

section 32 of 30-24. I think I can say positively that he did not tell me so. I made no examination of the Elk Hills country at that time but I made examination of lands quite a distance to the West of there, practically five miles to the west but not in or near oil territory according to the map of Mr Treadwell. I stated that that map shows reservations of land but I didn't say Mr. Treadwell had reserved them. I knew at the time that I got that map that these lands had been shaded by somebody and that they showed that they were shaded because they were to be reserved on account of being in or near oil territory. That is what the map states and I knew that at that time and the statement on the map shows that the lands in this suit were entirely surrounded on every side by lands which were shaded as being in or near oil territory. That is the map which I said that I took from Mr Owen and which had been furnished by the Land Department of the Southern Pacific Railroad Company to him. That map was furnished to Mr Owen at his request under my instructions. Early in September, 1902, the Land Department of the Southern Pacific Railroad Company had marked and shaded for reserved lands from sale all the lands which the company owned, entirely surrounding the lands in this suit and many others as well because of it being in or near oil territory. I had regarded for some time surface indications and geological structures as favorable indications for the occurrence of oil as those are the usual indications for the occurrence of oil. I wrote a pamphlet entitled "The

Oil Deposits of Texas" which was published in [2481] The Houston Post of January 20, 1901. I wrote it at the time or just after the bringing in of the Beaumont well I think, or the Spindletop well, and that article applies to the cases in Texas. I recall using this language in that paper:

"It is not my purpose, however, to bring up 'might have beens', but to state a few facts regarding the subject which appears to be most absorbing just at the present moment—the oil deposits of the coastal slope.

So much has been printed of late years about artesian water and its manner of occurrence that I suppose every one understands that it does not exist in underground rivers and lakes as we find it on the surface, but in beds of sand, occupying the minute spaces between the sand grains. Occasionally, of course, there may be a cavity of more or less extent, but these are unusual, to say the least. The occurrence of oil deposits is exactly similar. Oil simply impregnates the sand beds, where it has collected through the process of distillation and condensation during untold years. Whether it was originally derived from the decomposition of marine animal life, or plants, or coal, matters not. All have probably furnished material for it, and the nature of the material may be responsible for its being of an asphalt or a parafine base, but those are points for scientific inquiry; at present we are more interested in the where than the why of such occurrences.

The first thing to ascertain then is the location and

extent of such sand beds as may contain oil. In a general way this has already been done, and the details given in our [**2482**] various reports and papers, of which the following is a brief re-statement;

As we travel from the coast into the interior we pass over strips, or belts, of clays, sands and limestones of varying character and width. These are the exposed edges of numerous sheets, or beds, of these materials, which were laid down as sediments beneath the water which formerly covered the entire region. From these exposures they slope downward toward the gulf shore, and are overlain by later sediments; the edges of the older beds are therefore on the interior margin of the slope, and the latter succeed one after another coming toward the coast.

The outcrops of these beds from a series of belts approximately parallel to the present gulf coast, and borings show that the underground slope of the beds is from twenty to fifty feet to the mile more than the surface slope of the country; for instance the beds which occur at the surface around Hampstead were struck in the deep well at Galveston at less than 3000 feet."? A little later on in the paper: "With the exception of the Corsicana oil, all of the horizons here mentioned are of the same general age and character as those in California, and they continue along the gulf coast well into Mexico. The oil-bearing portions of these beds bid fair to prove as extensive as any known, and are as yet practically untouched." "The investigations of Dr I. C. White in the oil fields of Pennsylvania and West Virginia have proved that

the variety of asphaltum known as Grahamite is one of the surface indications of oil deposits." Then, referring still further [**2483**] along in the paper: "Still higher in the series, as we understand it, come the beds in which Beaumont has just encountered such a phenomenal supply. The conditions of the occurrence of these beds differ somewhat from those below, and we expect the finding of oil along the coast to be more indistinct basins than may be the case with the lower oils, the sands of which appear to have greater continuity and are not divided into lenticular deposits.

Whether or not any of these oil deposits can be struck at any particular locality is a question to be answered only after investigation of the surface conditions in the vicinity, or by actual boring. The surface indications are a guide where they exist, but oil may be sometimes found below when such evidence is apparently lacking, or would only be detected by an expert observer.

The success which has already attended the search for oil will certainly stimulate others to undertake similar borings, and the interest thus aroused will without doubt overflow into other channels and bring about the development of other mineral resources of the state which now lie dormant, largely because they are not properly appreciated or understood."

As a broad spread I compared it with the California conditions here, but I found later that there were numerous differences which have been discovered right straight along. I have always understood

that surface conditions, surface indications were what was needed as a rule in all investigations. [2484]

I have 2667 shares of stock in my name in the Eight Oil Company. I may have met Mr Thomas E. Klipstein, whom I believe is the Secretary of that company. On this map, Plaintiff's Exhibit AA, concerning which Mr Klipstein testified that the Eight Oil Company owned or claimed to own, all of the sections of land in township 30 South, 23 East, and in fact, all the lands which on this map are colored blue, I find that the sections which are colored blue are sections 20, 22, 24, 26, 28, 30, 32 and 34. This map shows that sections 17, 19, 21 and 29, which are lands involved in this suit, immediately adjoin section 20 of the Eight Oil Company's holdings. This map also shows that section 30 in 30-23 adjoins sections 19 and 29 involved in this suit and also that section 28 of the Eight Oil Company's holdings adjoins sections 21, 27, 29 and 33 involved in this suit. The map also shows that section 22 of the Eight Oil Company's holdings adjoins sections 15, 21, 23 and 27 involved in this suit. It also shows that section 34 of the Eight Oil Company's holdings adjoins sections 27, 33 and 35 involved in this suit. It also shows that section 26 of the Eight Oil Company's holdings adjoins sections 23, 25, 27 and 35. All these lands are in township 30 South, range 23 east. This map also shows sections 26, 30, 32 and 34 of 30 South, 24 East, as belonging to the Eight Oil Company. This map also shows that in the township immediately south of

township 30-24 the Eight Oil Company's holdings are section 4 and the north half of section 8. Referring now to township [**2485**] 31-23, the map shows that the north half of section 31 and the south half of section 32 belong to the Eight Oil Company and that the south half of section 4 in Township 32 south, range 23 east, belong to that company. I think I acquired my stock in the Eight Oil Company in September, 1909. I am not an officer or director of that company and have never voted my stock personally at an election of officers or directors of that company. I sent my proxy to Erwin Owen, son of Josiah Owen, for one election. Mr Josiah Owen during his life time also held stock in the Eight Oil Company. I am acquainted with Mr. S. P. Wible. He has stock in the Eight Oil Company. I understand Charles Haberkern also has stock in the Eight Oil Company. I never heard that the Eight Oil Company claimed any lands in 30-23. Individuals may have had lands in 30-23. I have been told so. I have no personal knowledge of a contest initiated by certain locators for petroleum and other minerals, which contest was backed by the Associated Oil Company, or at its instance, against the locators of the Eight Oil Company or their predecessors in interest or any person connected with the Eight Oil Company, on sections 24 and 26 of Township 30 South, 23 East, and section 30 of Township 30 South, 24 East. I may have seen about it in the papers and I may have spoken about it to Erwin Owen. My own knowledge of that contest was hearsay. I had no knowledge

that the Eight Oil Company had holdings in 30-23. I don't know personally that the lands that the Associated were on and made [**2486**] application for were in 30-23. I have not even that actual information. I did not have a conversation with Mr Wible and Mr Klipstein in the streets of Bakersfield and in the Southern Hotel after that contest was initiated by the Associated Oil Company or in its behalf, against the Eight Oil Company and its locators, wherein those men asked why the contest was initiated against these lands as I was the geologist of the Southern Pacific Company and presumably of the Associated Oil Company. I did not say that the Southern Pacific Company and the Associated Oil Company did not know of my interests in the Eight Oil Company and that I had kept it a secret. I had no meeting with Mr S. P. Wible in the year 1904 in my office in San Francisco in which we discussed the location of the even sections which the Eight Oil Company afterwards acquired or claimed to own in Township 30 South, 23 East. I did not at that time advise Mr Wible to take up these lands with the proper number of associates for their petroleum values. I did not then arrange that Josiah Owen should take an interest which should be sufficient to protect me and that he should hold my interest in those mineral locations in secret trust for me. I had no conversation with Mr Wible in my office in which I informed him that Josiah Owen had reported to me on township 30 South, 23 East, that the lands were mineral lands and that I thought it would be well to have these

even numbered sections located next to the railroad sections which are involved in this suit. I never [2487] told Mr Wible at any time that I would be glad to have the even sections in 30-23 located for their mineral values and that you would want to be in on it. I never discussed the even sections of 30-23 adjoining the lands in this suit with Mr Wible before September, 1908. I had absolutely nothing to do with the location of these lands nor did I advise the location of any lands in either township 30-23 or 30-24. I know nothing whatever about the formation of the Eight Oil Company at the time it was organized. I did not instruct Josiah Owen at the time it was formed to see that I got my share of the capital stock of the company.

Q Well, did you at any time tell him to get your share of the capital stock?

A I didn't have to tell him to get it. He—

Q He understood it?

A He—that the—My share was paid for as we went along, and it was fully understood.

Q Fully understood that he was to get it for you?

A I was to have my part of his shares.

Q Yes. And he took two-ninths, didn't he, of the capital stock of that company?

A Two-eighths, wasn't it?

Q Two-ninths, one-ninth for you and one-ninth for himself?

A No sir.

Q Didn't he?

A No sir. [2488]

Q Did you get an equal amount of stock with him?

A I did.

Q You knew those sections of lands were taken because of their suppose mineral values, didn't you?

A They were not taken, as I understood it, with the original Eight Oil Company.

Q Well, you knew that whoever did take them took them for their mineral values under mining locations, didn't he?

A They took them for their speculative value.

They did unquestionably enter those lands under the laws of the United States as mineral lands or they wouldn't have had them. The first locations by the men who afterwards formed the Eight Oil Company were in sections 31 and 32 of Township 31-23 and in section 4 of Township 32-23. I don't think the lands in 31 were sold. I think they were under contract to Captain Matson of the Honolulu Oil Company. These lands were located in 1908 and subsequently it was found that there were other locators and a compromise was made by which these locators who afterwards formed the Eight Oil Company, received the north half of 31, the south half of 32 and eighty acres of the southwest quarter of 4. 4 is in Township 32 South, 23 East. The others were 31-23. The contract with Captain Matson's company was that they would drill the wells necessary to patent these lands for one of the holdings of 31. The south half of 32 was sold to some one else under the same conditions. I had no hand in the arrangements personally but I am simply telling what I heard had

been done. Some [**2489**] arrangements were made with someone else for patents for eighty acres in section 4 on the same terms of one half the property. The work on 31 and 32 of 31-23 was completed and patents were gotten and the one hundred and sixty acres in 31 were sold. The parties who drilled these lands were drilling for oil and they certainly did get it. Those were oil lands. I think that the one hundred and sixty acres that was sold by the Eight Oil Company was sold for $1500 an acre. The other land that was sold for probably as much. The total capital stock of the Eight Oil Company is $32,000 at a dollar a share. I owned a one-twelfth interest. After these sales the Eight Oil Company declared a dividend. I don't know exactly how much I got but I think it was over $20,000. All the holdings of the Eight Oil Company were taken up under the mining laws of the United States. I claim I have no information although I hold a one-twelfth interest in the total capital stock of the Eight Oil Company, that the Eight Oil Company claims to own any land in 30-23. My information is to the contrary and to the effect that the Eight Oil Company has no claim on any lands in 30-23. They have minerals claims in 30-24 which are in the Elk Hills, in the eastern part of the Elk Hills. I acquired my interest in the Eight Oil Company in this manner. In July or August of 1908 Mr Owen told me he had taken up these lands in 30-23 and 32-23 of which I have spoken and that drilling had been or was progressing in that part of the field; it would be necessary for the locators of these lands to get busy,

and asked me to go in with him in paying the assessments on those lands. I [2490] acquired my interest by paying every dollar as much as Mr Owen and exactly the same as every other man in the Company. I was not permitted to come in and share in those lands because of my geological advice and I did not begin advising Mr Wible before the patents issued in this case to take up the even sections in 30-23 adjoining lands in this suit. Not to my recollection did I ever discuss in my office in San Francisco before the fire in 1906 the mineral character of the even sections of land in 30-23. I don't remember ever having see Mr Wible in San Francisco prior to 1906. I don't know when the suit was instituted or whether I was in Bakersfield at that time or not. I didn't know that the Associated Oil Company had any suit against the Eight Oil Company in 30-23. As far as I have any recollection there is no truth about Mr Wible telling me in Bakersfield that a contest had been started by the Associated Oil Company and of his asking me as the geologist of the Southern Pacific Company why that suit was started. I did not at that time tell him the Southern Pacific Company and the Associated Oil Company knew nothing about my holdings in the Eight Oil Company and I have no personal knowledge of the suit or contest referred to, brought in behalf of the Associated Oil Company against the locators. I never met Mr Klipstein but once and I didn't, so far as I have any knowledge, talk with Mr Klipstein at that time in Bakersfield about the mineral character of the lands in 30-23. At

the time I met him it was on the streets of Bakersfield. He passed where I was talking with someone else and I was [**2491**] introduced to him. I had just come in from the field. I was standing at a machine and he passed and somebody introduced me to him and that is the only time I have ever seen him. Section 30 in 30-24 is one of the sections which was located by the men who formed the Eight Oil Company. I recall having a talk about that section. I recall the fact that a suit had been brought involving that section and my recollection is that it was told me they had receiver's receipts or had done the work or something. I don't recall just exactly what it was. I did not in connection with that talk tell Mr Wible or Mr Klipstein that the Associated Oil Company and the Southern Pacific Company did not know of my connection with the Eight Oil Company and that I didn't want them to know it. I never kept it a secret from those companies. As a matter of fact they did know of my connection with the Eight Oil Company and there is a letter in the files to show it so far as the Southern Pacific Company is concerned. Mr. Klipstein at that time on the streets of Bakersfield did not tell me about the prospects of the Eight Oil Company over there in 30-23 and I did not say that they looked good. Mr Hunt that was associated with me and Mr Owen was from San Francisco. He was interested in the holdings of the Eight Oil Company and put up the same amount of money that Mr Owen and I did and received one-third of Mr Owen's proportion of the total stock. Mr Owen had two shares

and he divided it into three parts. The reason I had Mr Owen hold a share for me and not hold it in my own name was that it was not taken for me originally. I did not say to [**2492**] Mr Wible and have a thorough understanding that Mr. Owen was to hold my share for me. Mr Owen went into this matter without any consultation with me and I didn't know thing about it for sometime after he had gone into it. I have no personal information as to how many sections of land the Eight Oil Company or the locators who formed the Eight Oil Company, or their predecessors in interest, located in the Elk Hills. They probably located parts of four or five sections. I have not any personal information regarding it. I had absolutely nothing to do with the taking up of the sections in the Elk Hills. I didn't know anything of it until after it was done. I was not interested in acquiring an interest in the Eight Oil Company holdings which were mineral lands. I was not interested in acquiring the holdings of the locators who afterwards formed the Eight Oil Company. I was helping Mr. Owen out in these three locations down here in 31-23 and 32-23. I knew nothing about the work that had been in contemplation on 30-24 until after they had gone into it; didn't even know that the Eight Oil Company would handle it until some time after they did handle it. I didn't know that the Eight Oil Company and the locators were the same people. Mr Josiah Owen told me in 1908 he had interests in some locations in 30-24. When you ask me if I discussed with any member of the Eight Oil Company

or any stock holder of that company the contests now pending in the United States Land Office the mineral locations which formed the basis [**2493**] of the Eight Oil Company's holdings in the Elk Hills, my answer is "I don't remember anything positively except a conversation I had with Mr Wible, I think some time last summer, in which he was telling me or showing me some samples of Fuller's earth and oil. That is the only conversation I remember with regard to it. This oil and Fuller's earth came off of section of 30-24, the lands of the Eight Oil Company. The Eight Oil Company are attempting to acquire patent to these lands in 30-24 under the mining laws of the United States for Fuller's earth, as I understand it. The land was located for Fuller's earth and petroleum also. They have money enough in their treasury from the sales of land to put up any expense in respect to those contests. Mr Owen in his life time never discussed with me, prior to patent, the probability that the selection of lands which formed the basis of the patent in this suit would be rejected by the Land Office because of the petroleum bearing character of the lands and that the odd sections involved in that application would be thrown back and opened to entry as a part of the public domain. I have no personal knowledge, whatever, that Mr Owen told Mr Wible to watch out for the odd sections because undoubtedly the railroad company could not maintain that application because the lands were mineral in character. I have not any personal knowledge of the trip which was made by Josiah Owen and

Mr Wible to Visalia to look into the matter of the survey of the lands in this suit, or of the trip made by them to San Francisco to the Surveyor [2494] General's office in respect to the same matter. I don't remember of Mr Wible ever being at my office in San Francisco before the fire in 1906 or at any other time. He has not been in my office repeatedly and discussed the location of the even sections in 30-23 with me nor has he discussed their mineral character. I regard Mr Wible as a truthful man. I have always found him so. I never stated to Mr S. P. Wible that I had a report from Mr Josiah Owen on lands in 30-23, which show these lands to be mineral in character. Not prior to these lands in 30-24 having been taken up by the locators did I ever tell Mr Wible at any time that I had a report from Mr Josiah Owen showing that the lands in the Elk Hills in 30-24 were mineral lands. I think it was in October 1908 Mr Owen wrote me that he had found quantities of Fuller's earth in 30-24. Fuller's earth is a mineral but not a mineral in the strict sense of the term. Mr Owen did not mention any actual townships in his report but merely mentioned he had found Fuller's earth on two or three sections on the anticline north of the lake and the fact that he located the lands in 30-24 is evidence that that is what he meant. When you ask me if Mr Wible and Mr Klipstein last summer in Bakersfield had not "jumped" me about this contest of the Associated Oil Company, my answer is "I don't remember meeting Mr Klipstein in Bakersfield. Mr Wible may have jokingly said something

about it, I don't know, but never in any seriousness whatever. I don't remember even such a—And, anyhow, the matter was not true, because my connection with the Eight Oil Company is a fully known fact to the Southern Pacific Company. It was so known [**2495**] to that company before this suit was commenced. After this suit was started and shortly after the testimony of Mr Haberkern and Mr Wible and Mr Klipstein, associates in the Eight Oil Company, I went to Bakersfield and looked over the files and papers of Mr Owen in connection with this suit as my files were not complete and I wanted to know if there was anything in Mr Owen's files in connection with the reports on these lands that I didn't have. I found there this letter of March 25th and some township plats and some copies of fragmentary reports on townships and some things of that kind that I had not in my files, or any memorandum of. I had copies of my correspondence with Mr Owen and I introduced here a mass of carbon copies from my Houston office relating to these California oil lands . My purpose was not to go up there to see whether Mr Owen had not inadvertently kept some copies of reports showing these lands in this suit to be mineral and I did not find any such papers as that. I am interested in the Buena Vista Land and Development Company. I own one-tenth of the capital stock of that company. That company owns a great deal of land which was taken under agricultural scrip, in the Buena Vista hills and vicinity. They bought from Mr Wible a scrip title to a quantity of land in there.

I think there is about five or six sections up there altogether and I believe that those sections of land which they have are oil lands. The Buena Vista Land and Development Company are endeavoring simply to get possession of the property they bought in buying the scrip title to the lands. I don't know anything about what kind of scrip [**2496**] it is. It is a matter concerning which I have no knowledge personally as I had nothing to do with it further than to pay my money in for stock.

Q Well, you know their lands, don't you?

A I know which the lands are, or did know, I couldn't state it on the map. But I know that there was—that they had section 10 and the southwest quarter of Section 4 under placer location or title by mineral location and patent.

Q Well, how about the other sections?

A The others, as I understood, they bought—that they had been taken up under some variety of scrip, and that the state had—in which the state was interested.

Q State scrip?

A State scrip.

Q Yes.

A And that the state had given them their rights as far as they had given it, whatever that may be, and they bought those rights from Mr Wible, and that afterwards it was found that they had to be listed, or something at Washington and patent issued in that way.

Q By Mr Lewers—Is that the same S. P. Wible that has been referred to?

A Yes sir; the same.

Q By Mr Mills—I am not interested where they got the scrip. I am asking you whether the Buena Vista Land & Development Company are not now attempting to acquire the title by patent by the use of state scrip? [2497]

A. I don't know enough about the way those things are operated to be able to answer that question definitely. I simply know they have been waiting for patents on that land.

Q. Well, you know that there is a contest initiated and pending against their holdings there, by an oil company or in its behalf, claiming that the lands are petroleum lands, now pending before the land office, don't you?

A. I have heard of such a suit. I know nothing of it personally.

Q. Now, regardless of where the Buena Vista Land & Development Company obtained scrip, in which I am not interested at all, why did it place such scrip upon what you now concede to be and knew at all times, did you not, as oil land?

A. So far as I know the Buena Vista Land Company didn't place its scrip on any land.

Q. Why did the Buena Vista Land & Development Company now seek to get a patent by the use of that scrip when you yourself say that that land is oil land and you know it?

A. The scrip was on the land, the land had been

adjudged by the United States surveyors as agricultural land, accepted by the state, and they bought that title. They are trying to make their title good.

Q. You justify it because the Surveyor General had returned it as agricultural land, then?

A. So far as anyone knew at the time, it was [2498] agricultural land.

Q. Well, is that so? Can't you answer that question?

A. What is that?

Q. I say you seek now to justify their action by the fact that the Surveyor General had returned those lands as agricultural lands?

A. I am not justifying their action. I am just telling you the fact.

Q. Don't you know the lands *which form of* this suit were returned in 1902 by the Surveyor General as mineral lands because of their petroleum values?

A. I do not.

By Mr. Mills—You are perfectly willing to receive the benefits of those scrip locations not conceded to be mineral lands, aren't you?

A. I had gone in there and bought any land at that time with that kind of title that I considered the title covered the land properly; I could try and make that title good.

Q. What title are you talking about, Mr. Dumble?

A. I say any title, any title that was a title to the land.

Q. Well, does the Buena Vista Land Company claim to have a title to the land?

A. I understand that they do.

Q. They simply filed scrip, haven't they, in an attempt to get a title?

A. No sir. **[2499]**

Q. By Mr. Mills—Mr. Dumble, don't you think that it is your duty as a stockholder in the Buena Vista Land & Development Company, now that you concede that those lands are petroleum lands, to disclose your belief to the United States Land Office where that contest is pending?

A. I don't consider that I have any duty whatever in the premises.

Q. You are after the patent, aren't you, for those lands?

A. I am a stockholder in the company. I have absolutely nothing to do with its management, nor have I ever had.

Q. Well, you have advised the company geologically, haven't you?

A. I have not.

Q. And you have attempted to sell their lands for them, haven't you?

A. I tried my best to get a sale made for them.

Q. So that you have dabbled a good deal in the affairs of that company, haven't you?

A. No, only to that extent, and that because it was brought to me by other people.

Q. Well, haven't you yourself taken up the matter with people on your own initiative to help dispose of those lands or those holdings which the Buena Vista

Land & Development Company have in their agricultural scrip?

A. I don't remember having done so. I remember two parties having come to me in regard to it. **[2500]**

Q. What parties were they?

A. The Associated Oil Company for one.

Q. Who else?

A. My recollection is that the—Mr.—Oh, I can't remember his name—Canfield, I think—no, that is not it; he was working with Captain Matson.

Q. Crandall?

A. Crandall, yes sir; that is my recollection now.

Q. Was that all the people that you broached on that subject?

A. That is all that I approached.

Q. You think it is perfectly right, then, for that company to attempt to maintain agricultural scrip on those lands when you as a stockholder and geologist know that they are mineral lands because of their oil-bearing character?

A. As long as they were taken up properly I think that they have as much right to maintain their rights to their title as they would if the patent had issued prior to their having bought it.

Q. And didn't you have some such freedom from responsibility, moral responsibility, when you, Mr. Dumble, proposed the selection of the lands in this suit under an agricultural grant, when you knew that they were petroleum lands?

A. I never proposed the application for lands in this suit, or had anything whatever to do with it.

Q. You throw the entire responsibility on Mr. Eberlein, do you? **[2501]**

A. Absolutely.

I don't remember the date that oil was first found in the Buena Vista Hills. I remember the bringing in of the Honolulu well, No. 1, in section 10 or 11 in 32-24 but I can't give the date. As far as I know that was the first well brought in. I remember it was in the winter subsequent to 1908. I don't know that there had been a discovery of oil in the Buena Vista Hills up to July 1, 1908. Prior to 1908 I regarded the Buena Vista Hills as an ideal spot for the accumulation of petroleum because of the structure of those hills. Their structure was apparently a dome and my information was that there were asphalt seeps on section 11, I believe it was, immediately adjoining the east line of section 10. I regarded the Buena Vista Hills as prospective oil; not positive. That particular place was based solely upon the structure and that indication in Section 11 and my opinion was based largely upon Mr. Owen's statement of the conditions. At that time I don't think I had been in the Buena Vista Hills themselves. I had only seen them at a distance. Mr. Owen had made a verbal report to me on the Buena Vista Hills and besides the report as to the structure and asphalt seep I don't remember now what other indications Mr. Owen told me about but I considered what he gave me as a good recommendation for prospective oil. I

also regarded his general information respecting the hills, and his belief from what he had seen in there. The subject of the employment of F. M. Anderson, as I recollect it, came up in my room in the Union Trust Building in San Francisco **[2502]** Mr. Anderson made application for a position under me bringing me a letter from Mr. Mills, at that time the Land Commissioner of the Central Pacific Railroad Company. That was in March, 1903, if I am not mistaken. Mr. Anderson was under Mr. Owen although they worked different fields largely. The land which was actually included in the proposed lease of August 2, 1904, to the Kern Trading and Oil Company according to my computation, was in the neighborhood of sixty odd thousand acres. Of this land Mr. Owen regarded twenty three to twenty five thousand acres as either productive oil lands, first class, second class and third class, and I have in my files a list which indicates where those twenty three thousand acres of land are. I recall the list of classified lands containing 93,311 acres to which my attention was called yesterday. That list was the result of a great deal of work done there by Mr. Owen and under his direction in the West side fields. I think the work was done in 1904 or the spring of 1905. I received files from Mr. Owen at different times but none that I have been able to identify. Search has been carefully made but we have been unable to find any classification in the files at any place.

RE-DIRECT EXAMINATION.

The letter which you show me was written by me on September 18, 1907, to Mr. W. F. Herrin. Attached to this letter is a list of lands for transfer from the Southern Pacific Railroad Company to the Kern Trading and Oil Company. The letter and attached list were offered in evidence and marked Defendants' Exhibit 159 and are as **[2503]** follows:

"Form 2103 919

SOUTHERN PACIFIC COMPANY

Office of File 110.

Consulting Geologist.

San Francisco, Cal. Sept. 18, 1907.

Mr. Wm. F. Herrin,

Chief Counsel, Building.

Dear Sir:—The original lease from the Southern Pacific Railroad Co. to the Kern Trading & Oil Co. for oil lands in Kern, Fresno and Kings Counties, which was drawn by your office in 1904 having been destroyed by the fire, and no copy of it being now in existence, Mr. Calvin instructs me to request that you draw up another lease, covering the same points as nearly as possible.

The original lease was for a period of ten years with the privilege of renewal so long as the production of oil continued.

The royalty was 10% of the gross production, oil used for development purposes excepted.

As some of the lands included in this lease were already under lease, the Kern Trading & Oil Co. took

them over subject to the conditions of such leases, agreeing to pay the S. P. R. R. Co. the amount of royalty named on such leases during their occupancy and operation by the original lessees. These are all of the general conditions that I can now recall.

The list of lands covered by the original lease has been enlarged in accordance with Mr. Calvin's instructions to cover all lands that we now believe to be [2504] probable oil lands, and the amended list is attached hereto.

Will you please give this your early attention in order that it may be put through as soon as practicable.

Yours very truly,

ETD-F E. T. Dumble.

Enclosure:

LANDS FOR TRANSFER FROM SOUTHERN PACIFIC RAILROAD COMPANY TO KERN TRADING & OIL COMPANY.

KERN DISTRICT:

Township 29 S., R. 28 E,	
N-½, N-½ of SW-¼,	
and NW-¼ of SE-¼, Sec. 3	436.56 acres
NW-¼, and N-¼ of SW-¼,	243.01
Township 29 S., R. 28 E., Sec. 7	
Township 29 S., R. 29 E.	
All of Sec. 17, 19, 21, 29	2563.76

McKITTRICK DISTRICT:

Township 30 S., R. 21 E.,

Sec. 1	847.87
Lots 1, 4, 9 & 10, NE-¼ Sec. 11	100.36
Township 30 S., R. 22 E.	
Secs. 5, 9, 15, 23, 25 & 33	3912.89
All of Sec. 7 except NW-¼ of NW¼	590.27
N-½, N-½ & SE-¼ of SE-¼, N-½, SW-¼, W-¼ of SW-¼ of SE-¼ of Sec. 17	540.
All of Sec. 21, except W-½ of SW-¼ & McKittrick town site	300.
E-½ & E-½ & NW-¼ of NW-¼ Sec 27	440.
N-½ & SE-¼ of Sec. 35	480.
Township 30 S., R. 23 E.	
Sec. 31	640.38
Township 31 S., R. 22 E	
NE-¼ of Sec. 15	160.
NE-¼ of Sec. 23	160.
NE-¼ of Sec. 25	160.
Township 31 S., R. 23 E.,	
Secs. 5, 7, 9, 15, 21, 23, 25, 27, 29, 33, 35	7036.88
E-½ of Sec. 17	320
Township 31 S., R. 24 E.,	
Secs. 31 & 33	1312.

[2505]

MIDWAY & SUNSET DISTRICTS:

Township 32 S., R. 23 E.,	
Secs. 1, 3, 11 & 13.	2564.30 acres
N-½ of Sec. 5	320.80

Township 32 S., R. 24 E.,	
Secs. 3, 5, 7, 9, 11, 13, 15, 17, 19,	
21, 23, 25, 27, 29, 33 & 35	10239.84
Township 12 N., R. 24 W.	
Lots 1 & 2, Sec. 25	
Township 11 N., R. 24 W.	
NE-¼ Sec. 1	159.89
Township 12 N., R. 23 W.	
Secs. 29, 31, 33	1381.12
Township 11 N., R. 23 W.	
Secs. 3, 5, & 9	1927.72
N-½ & SE-¼, Sec. 15	480.
COALINGA DISTRICT:	
Township 19 S., R. 15 E.,	
Secs. 3, 5, 11, 13, 23, 25, 31,	
33 & 35	6015.42
(Including leases on Sec. 31)	
Township 20 S. R. 14 E.	
Secs. 1, 13, 23 & 25, and	
E-½ of Sec. 15	2883.58
(Including leases on each)	
Township 21 S., R. 14 E.	
S-½ & NW-¼ of NE-¼, NW-¼	
SE-¼, N-½ & SE-¼ of SW-¼, Sec. 13	
E-½ & E-½ of NW-¼, Sec. 25	400.
Township 20 S., R. 15 E.	
Secs. 1, 3, 5, 7, 17, 29 & 33	4403.76
W-½ of Sec. 9	320.
NW-¼ & E-½ Sec. 19	488.18
W-½ of Sec. 21	320.
N-½ of Sec. 31	328.53

Township 21 S., R. 15 E.,	
Secs. 3, 5, 17, 19, 21, 27, 29 & 7	5295.68
W-½ of Sec. 15	320.
E-½ of Sec. 33	320.
Township 25 S., R. 18 E.	
NE-¼ of Sec. 9	
S-½ of NW-¼ of Sec. 11	160.
Township 24 S., R. 18 E.	80.
NE-¼ & NE-¼ of SW-¼ of Sec 5	217.84
NE-¼, NW-¼, W-½ of SW-¼	
E-½ of SE-¼ of Sec. 7	495.42
SW-¼ of Sec. 9	160.
NW-¼ of Sec. 15	160.
NE-¼, N-½ & SE-¼ of NW-¼, and	
NE-¼ of SW-¼ & SE-¼ of Sec. 17	480.
SW-¼ of NE-¼, NW-¼, and	
NW-¼ & S-½ of SE-¼ of Sec. 21	320.
NE-¼ of NW-¼ of Sec. 27	40.
N-½ & SW-¼ of SW-¼ of Sec. 35	320.

[2506]

Township 23 S., R. 18 E. of Sec. 31	658.96
NW-¼ of NE-¼, NW-¼	
Township 23 S., R. 17 E.,	
Secs. 15, 17 & 21	1440. acres
Township 26 S., R. 21 E.	
Secs. 29, 31 & 33	1927.10

The three expense accounts which are attached and marked Defendants' Exhibit 160, are my personal expense accounts for July, August and September, 1904. These expense accounts do not include the expenses of anyone besides myself. The treasurer's

voucher, 1130, dated October 22, 1903, was a payment to me of $500. This is the amount I carried in the field to make necessary cash payments there. At Sour Lake during the rush of business it was necessary to pay cash for day labor and also for hauling and incidentals. No part of that sum was expended for the personal expenses or trips of myself or Thomas J. Griffin. The traveling expenses of the individual officers or employees of the Rio Bravo Oil Company were paid on presentation of signed personal expense blanks similar to those introduced and vouchers made of those. There is not in any of these books any voucher made to me or to anyone in my behalf to cover any part or all of the personal, traveling or other expenses of Thomas J. Griffin on any trip that he made with me at any time. I never at any time paid any of the traveling expenses of Thomas J. Griffin nor did I arrange to have any expenses for any trip for him at any time to California paid. Mr. Markham left Texas for California about the first of April, 1904. I don't remember of his having returned to Texas until after his resignation from the Southern Pacific Company **[2507]** in the fall of 1904. I don't remember the month. I had correspondence with Mr. Markham in San Francisco in the month of September, 1904. I was not at Welsh or any other place with Mr. Markham in the presence of Thomas J. Griffin at any time during the time Mr. Griffin was employed by the Rio Bravo Oil Company. I made my last trip to San Francisco in 1903 arriving there on about the 5th of November and remained

there until the 12th of December when I went to Houston remaining there until the 20th of January, 1904. No one accompanied me on this trip from Houston to San Francisco on November 1, 1903. On that trip I came by the coast route. At that time on my visit to San Francisco I did not take up anything concerning the construction of a lubricating or refining plant at Welsh. My recollection of the first time when that matter was brought up was in the spring of 1904 about March or April, and when you ask me if I had anything personally to do with the negotiation of any contract between the Rio Bravo Oil Company and the Spindletop Power Company for the supply of oil my answer is, "I may have read the contracts over to see whether the specifications for oil were correct but so far as the contracts themselves were concerned I had nothing to do with them. Mr. Markham acted for the Rio Bravo Oil Company and Mr. Bass for the Spindletop Power Company in the negotiations of these contracts." My idea when I received this large map of 1902 which Mr. Owen obtained from the Land Department, was that it covered very much greater territory than any **[2508]** possible oil lands. I had information from Mr. Treadwell on that subject and also I had my own knowledge of the region from what I could see in traveling over it. Mr. Treadwell informed me that there had been a blanket reservation put on covering practically all lands owned by the company in the valley. Referring to the first list that was made by the Southern Pacific Railroad Company to the Kern Trading and Oil Com-

pany in 1904, royalties were paid to the Southern Pacific Company by the Kern Trading and Oil Company under that lease, the voucher being made regularly from the first of April, 1904.

RE-CROSS EXAMINATION.

I made Mr. Eberlein a statement on the first of every month showing exactly what royalties had been earned by the S. P. R. R. Company and approved a bill from the S. P. R. R. Company for such royalties for voucher by the Kern Trading and Oil Company. I made Mr. Eberlein a statement on the first of May, 1904, for all royalties that had been earned. It was sent to his office and a statement was made afterward that on the first of each month so far as I know. Not to my knowledge did I meet Special Agent Ryan when he was sent out by the United States Land Office at Washington to examine the lands. When you ask me if the attempt on the part of that company to acquire an agricultural grant of lands which I and my men knew to be mineral was the reason that I took it upon myself five days before the patent issued in this case to suggest in my letter to Mr. Bancroft that the papers covering the transfer, namely, the lease of lands in McKittrick and Coalinga [2509] districts from the S. P. R. R. Company to the K. T. & O. Company my answer is, "I have stated that I merely made that recommendation to Mr. Bancroft because of deference to Mr. Eberlein's wishes in the matter" and when you ask me why I was so keen about examining only patented land and demanded lists of land from the

Southern Pacific Railroad Land Department which showed only lands which had just been selected and not patented, also which were not even surveyed, and why I took the trouble to get those lands as I was not examining them, my answer is, "We didn't ask for them until some time after this." The only lists that we asked for was in connection with the general report that was asked for on lands at a subsequent time. When you ask me if I didn't receive a list from the Land Department of the Southern Pacific Railroad Company showing the lands which had been selected but still unpatented, my answer is, "Mr. Eberlein sent us that map but we didn't ask him for the unpatented lands. I did not at that time know that the Land Department of that railroad company had lists of lands marked "Patented lands", another list marked "Selected but unpatented lands", another list marked "Unselected unpatented lands" and another marked "Unsurveyed unselected lands", and when you ask me if I did not receive a list of lands in the McKittrick district showing that those lands in the Elk Hills were selected but unpatented, my answer is, "I received nothing whatever except that map accompanying the letter of October 8th. That map showed on its face that those lands were selected but still unpatented. It **[2510]** also showed lands which were unselected and even unsurveyed" and when you ask what I wanted it for if I was only concerned in the patented lands my answer is "I didn't want it; I didn't ask for it."

Q. It was sent in response to your request, was it not—and you so testified?

A. It was sent, in response to my request, showing the lands in—on the list of the Kern Trading and Oil Company, to which Mr. Eberlein objected as their not having patents for, and in one case, that we had included the McKittrick townsite; and we asked him to give us a map showing what it was that they had and didn't have, in order that we might get our list correct.

Q. You wanted to know what lands would inure to that company, didn't you, under an agricultural grant?

A. I did not.

Q. You didn't?

A. No.

Q. Then you wanted to know what lands would inure to it if you could select them as mineral and represent them as non-mineral?

A. I did not.

Q. Now, have you been able to refresh your recollection, so that your mind is still not a blank, upon the language which you used some three years after that conversation you had with Mr. Eberlein, when you stated, "Early in December we had a further conference on the matter and you explained that you were rushing certain lands for final patent and that the immediate execution of the lease showing our idea of what were oil lands might interfere **[2511]** with you and we agreed to defer the execution until that danger was passed." Have you now any recollec-

tion, out of the blankness of your mind, as to what you meant by that "danger"?

A. So far as the word "rushing" is concerned—

Q. I am asking you now about the "danger"?

A. No danger to us. It was the danger that he might have—

Q. A danger to the land agent who had to make the non-mineral affidavit is that what you mean? The danger of being indicted, perhaps? Was that what you had in your mind?

A. It was not.

Q. What danger did you refer to, if you have refreshed your recollection now?

A. I have not refreshed it any more than it was before. I have simply restated it.

Q. Is your mind still a blank?

A. I have not stated that it was a blank. I simply say that I don't remember any special danger in regard to it, except that it would interfere with his work.

Q. Mr. Dumble, you know now, don't you, if you remembered three years after that conversation, and placed it in cold type—you now remember what the subject of conversation was, and you do now remember, to be honest, that Mr. Eberlein warned you at that time—

A. He did not.

Q. —of the position you were putting him in, with your knowledge of these lands, when he was making a **[2512]** non-mineral affidavit?

A. He did not, or I had no knowledge of them as mineral lands.

The letter to Mr. Bancroft bears witness that Mr. Eberlein thought there might be some danger to him and for that reason I asked that it be held up as a matter of policy, such as he suggested. I did not know as a personal matter when I had that conversation with Mr. Eberlein that Mr. Eberlein believed that there was a danger in that matter on account of his having made a non-mineral affidavit.

Q. And you knew that if the United States land officers, having charge or jurisdiction in the premises, had seen your letter of 1907 to Mr. Eberlein, in which you say that "you agreed with him that it was best to hold up that list until that 'danger' was past", they would have inquired into that matter, if that letter had been written prior to the patent in this case?

A. That was the only danger, as I understood it—that they might inquire into the matter.

Q. Then, why didn't you at that time go and disclose—

A. They had passed on them as agricultural lands.

Q. They had never passed on those lands as agricultural lands, and you know it.

A. Well, I don't.

Mr. Lewers—And you know that your statement is incorrect. **[2513]**

Mr Mills—I know my statement is absolutely according to the facts.

Q. Now, when you knew that fact, why didn't you, as a citizen of the United States, having some

moral responsibility in the premises, disclose what you know to the United States Land Office, so that this fraud could not be perpetrated upon the government?

A. I had no knowledge that there was any mineral wthatever in 30-23—absolutely none.

Q. You knew very well, Mr. Dumble, that Mr. Owen had examined those lands and this anticline across the very lands in suit, and you knew that the structure was favorable for the accumulation of petroleum, didn't you?

A. The anticline cut no figure in it whatever, because there were no indications of oil connected with it.

Q. Didn't you say, Mr. Dumble, in your letter to Mr. Kruttschnitt, that there were a number of untested anticlines which showed good and favorable signs for the accumulation of petroleum?

A. I didn't include that one.

Q. What untested anticlines did you have reference to?

A. They were noted on that map of Mr. Owen's.

Q. Yes. And that was one of the untested anticlines, wasn't it?

A. Surely; but not one of those mentioned.

Q. Did you specifically designate which untested anticline you meant? **[2514]**

A. The letter itself.

Q. The letter shows there are certain untested anticlines. It didn't mention them, did it?

A. It showed the ones that he considered oil-bearing.

Q. Did you think it was your duty to the railroad company, knowing the facts as you knew them. and rehearsing them in your letter to Mr. Eberlein three years after the patent issued, where you acknowledged and conceded there was a danger, to withhold that information from the United States Land Office?

A. I had no duty in the premises to either party, because, so far as I was aware, the lands in 30-23 were non-mineral lands; and the only reason for my agreeing with Mr. Eberlein was the danger, I take it, that there would be a delay and a looking into the matter when we were trying to get the patents through.

Q. You knew that Mr. Treadwell had withdrawn all of the lands around the lands in this suit—

A. I did not.

Q. —on that map? You have so testified, Mr. Dumble?

A. I have not testified that Mr. Treadwell withdrew them.

Q. Well, you knew they had been withdrawn by the land department on the advice of somebody, didn't you?

A. I knew that a blanket reservation had been placed on practically all the lands owned by the company in the valley. **[2515]**

Q. And that all these lands, the lands in this suit, were completely surrounded by that reservation?

A. Yes; and lots of others.

Q. Now, why didn't you disclose that fact to the Land Office?

A. Well, the government makes reservations for many miles around anything that shows any mineral indications and holds them out. Why should not the railroad, or anybody else?

Q. When you discovered that there was an anticline running across those lands there, and knew of that break in Section 22, in 30-24, if you knew of it at that time, why didn't you then disclose that fact to the land office?

A. I was not in the employ of the land office. They had their own men examining those fields. I didn't know of a break in 30-24. And the anticline in 30-23 showed no indications of oil.

I have looked over the testimony of two or three witnesses in this case. I have had my own testimony and Mr. Wible's and Mr. Overton's and Mr. Eberlein's and Mr. Treadwell's and I also read Mr. Stone's testimony. I may have read the testimony of one or two others that I don't remember. If Mr. Stone testified that it was throguh my suggestion because of reasons best known to myself, namely, that these lands were oil bearing lands, that these lands were rushed to selection, my answer to that is that I made no such suggestion. I do not know that Mr. Stone had been in the service of the Southern Pacific Company for upwards of thirty years. I had no knowledge that Mr **[2516]** Stone, because of his long service, was retired on a pension and is still drawing a pension from the company.

I do not remember going out in a carriage with Mr. Markham from the field to the tank farm, in company with Mr. Markham and Mr. Griffin, as testified by the latter; Mr. Markham was in San Francisco; I could not have had any conversation at that time about Mr. Eberlein; I did not go to Welsh with Mr. Markham during the time Mr. Griffin was there; Mr. Markham was in San Francisco at that time.

No conversation ever took place between myself and Thomas J. Griffin as testified by him on the Southern Pacific property, or the Rio Bravo proper, at Sour Lake, in Texas about twenty miles northwest of Beaumont, wherein he says there was no one present, and that a conversation came over Rio Bravo well No. 107, discussing the depth that the first strata was struck, or the probability of striking a lower strata and the gravity of oil that we would find at a lower strata; I did not tell him about a low gravity oil of Kern County, or the Kern field, and Sunset and McKittrick, or say that I would like to find an oil of that lower gravity, that it would be much better fuel oil without so much danger of fire, or suggest that if well No. 107 quit flowing or quit producing that I was going to take it up with New York and get an appropriation to deepen that well or go down and make a test of it; it is not true that I said to Griffin that the California field was the coming field or that he ought to go there and get in, the territory was so large, that I knew every foot of it, and had been over it in person.

There is not a word of truth in Griffin's testimony that I said to him that the territory in those Califor-

nia fields was so large that one could hardly put down a hole without getting oil, or that we owned a great deal of it, or that we had not taken out patents on a great deal of it, but expected to do so. **[2517]**

The Texas oil was as fine a fuel oil as we could find, and that oil was heavy enough for all purposes. It was a fairly good producer; it was not a gusher; I think its total production in its whole life was not more than 40,000 barrels; its was brought in in December, 1903; it was a shallow well. As a matter of fact, we would not expect to get heavier oil by going deeper; that is contrary to the facts of the oil business; furthermore, had I wanted to deepen that, I had full authority to do so without going to New York for permission. I had not been over the oil lands of California in person.

No such conversation as Mr. Griffin relates ever took place between himself and myself on the train in the spring of 1904 or at any time, and I never had a conversation with Griffin in California; I never made any such statement to anyone; I was never in the Elk Hills or on the lands in township 30-23 that are in controversy in this suit; up to the time that the patents were issued there had never been a report made to me either by Mr. Treadwell, Mr. Owen or Mr. Anderson **[2518]**

JULIUS KRUTTSCHNITT, a witness called and sworn on behalf of the defendants, testified as follows:

DIRECT EXAMINATION.

I am the chairman of the executive committee of the Board of Directors of the Southern Pacific Company. From April, 1904, to January, 1913, I was director of maintenance and operation of this company and as such was in charge of its oil developments. From 1901 to April 1, 1904, I was a Vice President and assistant to the President of this company. I was located at that time in San Francisco. When I became director of maintenance and operation I was located in Chicago up to November, 1911, when my office was transferred to New York where it is at the present time.

While I was Vice President and assistant to the President, my powers were very much the same as when I was director of maintenance and operation. The chief difference between the two titles was that after 1904 my jurisdiction extended over the Union Pacific System as well as that of the Southern Pacific. While I was assistant to the President, who was Mr. Harriman, he occasionally instructed me to look after other matters that were foreign to operation and maintenance.

From 1903 on I had charge of the operations of the Kern Trading & Oil Company in California and of the Rio Bravo Oil Company in Texas. Both of these companies were really departments of the Southern Pacific Company for exploiting oil lands and pro- **[2519]** ducing oil for fuel purposes on the railroad. Mr. E. T. Dumble had active charge of the field work

of the Kern Trading & Oil Company and reported to me as his superior officer. In matters of detail he reported to local operating officials in Texas and in California. In the latter place he reported to Mr. Markham, to Mr. Calvin and also to Mr. Bancroft, who was General Manager for a short time.

While I was located in California my knowledge of oil field conditions came in a general way from the newspapers and in a more special way from the reports that Mr. Dumble made to me from time to time. I had no knowledge of the locations of land containing oil belonging to the company other than what I gained from the reports of my subordinates.

I had absolutely nothing to do with the patenting of lands to the Southern Pacific Company except this. I knew in a general way as it was a matter of common talk, that the patenting of the company's lands from 1902 to 1904 was very much in arrears. This work was in the hands of the Land Department but after my appointment as assistant to the President, and particularly after Mr. Eberlein was sent to California, I was instructed by Mr. Harriman to cooperate with Mr. Eberlein in the work he was sent out there to do. I was not in charge of his work, but was asked to assist him.

Mr. Eberlein was sent out to California to push the patenting of the company's indemnity lands and to investigate the workings of the two land departments then in existence. That of the Southern Pacific Railroad Company was in charge of Mr. Madden, and Mr. Mills was land agent of the Central Pacific.

I know of no special reason influencing the application for patent at that time on the part of the railroad company except that before Mr. Huntington's death there had been considerable complaint that the government was very slow in patenting these lands **[2520]** to the company. I often heard Mr. Huntington himself speak of this.

Referring particularly to the lands which are involved in this suit, the first information I now recollect ever having received concerning that land or any land in the vicinity, was in 1903. Mr. Harriman had instructed me to push the use of oil fuel on our locomotives. I had done a little in this direction during Mr. Huntington's life and Mr. Harriman was much impressed with the economies that might be effected in this way.

Under these conditions one of the first things to be done was to ascertain what lands the company had which were available for oil production. Mr. Treadwell, after the excitement resulting from the finding of oil in Southern California, had recommended for reservation from sale, nearly all of the indemnity lands in Southern California. It was evidence to me that this reservation was entirely too broad. It took the company's lands entirely off the market, so when Mr. Dumble was put in charge of this work, one of the first things I told him to do was to review these reservations of lands from sale and to make up a list of those the land department should not be permitted to sell.

I instructed Mr. Dumble to make this examination some time in 1903. The examination was made and maps showing the results were sent to me in the autumn of 1903. I remember receiving Mr. Dumble's letter of September 21, 1903, which is defendants' Exhibit No. 119. I don't have the original of that letter as it was left in my files in San Francisco and was undoubtedly burned.

I recognize defendants' Exhibit No. 156 as either the original or a copy of the map that was sent me with this letter by Mr. Dumble. I cannot say after this length of time that it is an exact copy but in a general way it shows the condition of our lands as I understood it at that time.

I think at that time there were some oil developments **[2521]** at or near the town of McKittrick; but this map is a map of the company's indemnity lands, classified as proven oil lands, probable oil lands and possible oil lands. There were no developments in this township 30-23 at that time,(and I had no knowledge of the existence of oil or the possible existence of oil in that township at that time other than the coloring on this map that shows a possibility in the extreme southwest section of that township. The section I am referring to is section 31.

In 1903, Mr. E. T. Dumble was under my direction and control and I may say in a general way he has been under my direction the entire time he has been with the company. But in 1903 he was under my immediate direction as I was the executive officer in

control of the oil production of the company during that time.

The Kern Trading & Oil Company was formed for the purpose of developing oil on lands owned by the railroad company and also for the purpose of collecting royalty oil on some lands that at that time had been leased to outsiders. In addition to this it was to purchase oil for the operation of the railroad. I do not know at whose suggestion the company was incorporated. It was really organized as a fuel oil development and purchasing department of the Southern Pacific Company.

At the time the Kern Trading & Oil Company was formed and began its operation in the field, there was absolutely no secrecy in connection with it. It was not formed for the purpose of prospecting or determining the character of land not yet patented to the railroad company. Such an idea never occurred to me, or, as far as I know, to any other officer of the company. There was no effort or intention, either under my direction or that of anybody else of which I had knowledge, to have Professor Dumble or any of his men examine lands not yet patented in order to obtain advance information concerning their oil character. Neither I nor Mr. Dumble as my subordinate, had anything to do with the patenting [2522] of lands.

There was absolutely no arrangement between myself, as the person in charge of oil production, and Judge Cornish, or any other official of the Southern Pacific Company or any of its subordinate companies,

by which I asked or suggested, directly or indirectly, that these other officials should acquire land from the government by patent because I had learned that it was oil land.

As I have said, I was put in charge of the development of oil. To facilitate this development the Kern Trading &Oil Company was incorporated in the early part of 1903. One of the first questions considered was what land this company should begin operating on and also what land should be reserved from sale. I wanted all such lands turned over to this company so as to have control over them and prevent their sale. We had had trouble some years before as the land department had sold extremely vaulable oil lands. I did not want that repeated and I wanted the lands placed under the control of Mr. Dumble so as to be positive that they could not be sold. This led to my telling him, I think in June, 1903, to have an examination made of lands owned by the company, so that we could take them off the market and, as far as their sale and development was concerned, take them out of the control of the land department.

It was my purpose to have all lands that were considered to be either actual oil lands, probable oil lands or possible oil lands, turned over to the Kern Trading & Oil Company so that it could control them. The policy of operation of the Kern Trading & Oil Company spoken of in Mr. Dumble's letter of September 21, 1903, was originally outlined by myself, and this letter and report is in response to a request I made for maps classifying the property. I remember re-

ceiving Defendants' Exhibit No. 123, Mr. Dumble's letter of November 20, 1903, enclosing a list of lands to be leased to the Kern Trading & Oil Company and I remember **[2523]** comparing that list with the maps at that time and finding that they agreed. When I received this letter I had not acquired any information concerning these lands in addition to what appeared in the maps and reports I have already referred to.

It is my understanding that the lands shown in this list accompanying Exhibit No. 123 were included in the lease that was subsequently drawn up. I remember receiving the various letters concerning the details of this transaction that Mr. Dumble has testified concerning. The papers in this transaction were sent to me for approval and I recollect that I approved them and instructed Mr. Dumble to proceed accordingly. Each important step in this matter was referred to me. After I decided upon the transfer to the Kern Trading & Oil Company I turned the matter over to Mr. Dumble to take it up with the attorneys and have it put in shape. I have no doubt that all of my correspondence was burned in the San Francisco fire.

I was in immediate charge of operations in California until April, 1904, when Mr. C. H. Markham took my place there. He remained as manager for possibly a year and was succeeded for a few months by Mr. Bancroft who occupied the place until we selected Mr. Calvin as a permanent general manager.

I think I probably learned first that land in town-

ship 30-23 had been selected and patent was being applied for at some time while this lease was in course of preparation. The lease was a long time in preparation and I knew that after Mr. Eberlein reached California there was some friction between him and Mr. Dumble, because the latter had recommended a lease that included one section in this township and Mr. Eberlein had an application pending for a patent to nearby lands. I do not know exactly when this difficulty arose, but it was during the time the lease was being considered. Mr. Eberlein protested against the lease and delayed signing it as land agent. He conceived the idea that the **[2524]** signing of this lease or the reservation of these lands was detrimental to something he was doing, and attempted to arrogate to himself the power of vetoing the lease.

I do not think that Mr. Eberlein made any objections to me in person, but I know through Mr. Dumble that he would not sign the lease. This difficulty with Mr. Eberlein did not have the slightest effect on my belief concerning the character of the lands in township 30-23. I had looked over the list of lands in this lease in connection with the map that had been furnished me. I had told Mr. Dumble to inspect these lands in the lease and report on them and I accepted the selection he made. It included only section 31 of township 30-23 and this was marked on the map as "possible" oil land. I did not care whether Mr. Eberlein signed the lease or not. The lands in the lease belonged to the Southern Pacific Railroad Company, every share of stock of which company was owned

by the Southern Pacific Company. The object of the lease was simply to put the matter in shape for the accounting department for bookkeeping purposes. As a matter of fact, we proceeded with the development of oil on a part of these lands regardless of Mr. Eberlein's refusal to sign the lease and he never objected to our doing so. I was acting under the orders of the president and he knew it.

I have my own belief about Mr. Eberlein's reasons for refusing to sign this lease. He had come out to California charged with certain duties by Judge Cornish, the Vice President in charge of lands. Judging from his talks with me he evidently thought that he was the king pin so far as anything relating to the company lands was concerned. He knew I had instructions to develop oil on lands of the company and I have never been able to trace his objections to signing the lease to anything except pique because he had not been consulted and considered himself slighted.

At the time this question arose with Mr. Eberlein, I **[2525]** did not dream that there was anything irregular in connection with the application to patent these lands. It is true there was a misunderstanding between Mr. Dumble and Mr. Eberlein, in consequence of which the latter would never sign the lease. But the lands then were not supposed to be worth anything for oil producing purposes, and they have never been considered worth anything since; and they are not worth anything now. The lands in township 30-23, I should say from what I have seen of that country, are fit for nothing except poor grazing or agricul-

tural purposes. From the information I have, however, I do not consider that they have any value for oil purposes. Most of my information concerning them is based on reports of my subordinates. I have been at McKittrick and from there I looked over that whole country. As far as I am concerned, with all due respect to California, I would not give fifteen cents an acre for the whole township; and if it were not for this imputation of fraud on the part of the officers of the Southern Pacific Company I would say today that every acre we own in the township might be sold for anything they could get for it, if they could find anybody foolish enough to buy it for what it is worth.

From the time I first acquired any information concerning lands in the immediate vicinity of those involved in this suit down to the present, and during all the time I have been in charge of oil production in connection with the Kern Trading & Oil Company, I have not at any time desired to obtain or considered as worthy of being obtained, any of the lands in township 30-23 for oil purposes. I did not at any time direct or suggest to Mr. Eberlein or anyone else that these lands be selected for patent. The only reference to me in connection with these lands seems to be a letter written me on October 12, 1903, by Mr. Chambers, our attorney in Washington. This letter is in evidence, and evidently refers to a letter that I write Mr. Chambers from **[2526]** New Orleans dated October 9, 1903, with which I sent him certain papers that I had re-

ceived from Mr. Eberlein who had asked me that the patenting of certain lands be expedited. As I have said, I had nothing to do with the patenting of lands, but had been instructed by Mr. Harriman to assist Mr. Eberlein in carrying out his work in California. When his letter came to me I evidently referred it to Mr. Chambers and asked him to help the matter along. In this letter Mr. Eberlein appears to have asked that special attention be given to the patenting of a selection list which he then expected to file. There was nothing known to me at that time requiring special attention to be given this particular list. But I knew that the patenting of the company's lands was very much in arrears and that Mr. Eberlein had been sent to California to expedite the patenting of lands in general. Therefore, if he had sent me a request to patent the North Pole I would have sent it on and asked Mr. Chambers to get after the department about it. In short, I had no idea when this letter was sent me where the lands referred to were. I did not have any information indicating that these particular lands were desirable. My understanding of Mr. Eberlein's request was that he was simply carrying out his general plan of patenting lands due to the Southern Pacific Railroad Company.

Mr. Eberlein was a nervous, energetic, strenuous person; everything he went into he went into apparently heart and soul, as if it was the only thing to be attended to; and this letter, and I have no doubt others, and oral requests made on me, to expedite this, that and the other, were made by him in furtherance

of the work he was sent out to do. In other words, he was thoroughly wrapped up in it and he did everything he could to push it along, and it occurred to me on numerous occasions that the selection of Mr. Eberlein had been extremely apt, because of his capacity for driving and pushing. **[2527]**

In this same letter from Mr. Chambers there is a reference to the fact that a special agent of the government by the name of E. C. Ryan had been directed to report upon certain lands in California. I was not acquainted with this man and do not have the slightest recollection of ever having seen him or had communication with him either written or oral. The first I ever heard of any examination of lands by him was evidently through this letter, but as I was simply helping Mr. Eberlein along, the letter produced little or no impression on me. I have only recently learned that Mr. Ryan did make such an examination.

Up to the time this suit was brought I never heard any suggestion that there was anything irregular concerning the selection of the lands involved. I have never considered that there was anything in connection with this transaction that required to be concealed and I don't know of anything that we have concealed. Down to the present time I have heard of absolutely nothing indicating that any fraud had been committed in connection with this selection by any offiical of the companies concerned. As I have already said, the land was not considered oil land in 1903 and 1904, the government evidently taking the same view because it patented the land to the com-

pany. It has been taken up and wildcatted by a number of concerns since that under the impression that there might be oil there, and I understand they have all given up in disgust.

I am not aware of any system of examination of lands not yet patented for the purpose of acquiring advance information concerning their oil character. No such thing was ever suggested to me by Judge Cornish or by any other executive official of any of the companies concerned. I have never known of its existence and have never had any reason to suspect it. I was in charge or control of the oil production of the Southern Pacific Company operating under direct instructions from Mr. Harriman and there [2528] has been no one over me in charge of that work.

The proposed lease we then had under consideration did not include any of the lands involved in this suit, but it did include section 31 in the same township which had been patented by this company prior to that time. I don't think that this lease of 1903 and 1904 was executed by Mr. Eberlein. He said he would never sign it and I don't think he did. I have some recollection of being in San Francisco several years later at which time the question came up concerning a re-examination of lands to be included in a lease to the Kern Trading & Oil Company, but I really do not know whether Mr. Eberlein ever did sign this lease or not. It was a matter of so little importance that I did not watch it. I don't think that the lease which is in force today includes any of the lands that are involved in this suit.

In 1902 while I was assistant to the President, I had no consultation with Judge Cornish. I went to New York four or five times a year or oftener to confer with Mr. Harriman at his request and was in touch with his views concerning California matters so far as my work was concerned. Mr. Harriman seldom answered letters and would let them accumulate and when he had a stack of them he would telegraph me to go to New York and we would take them up.

While I was in California in 1903 and early in 1904, Mr. Eberlein frequently dropped into my office and talked about the matters he was working on. He made no formal reports to me but he did discuss what he was doing. Up to the time I left California on April 1, 1904, I was the only official of the company with whom he could take up such matters.

The object of all of these conferences that Mr. Eberlein had with me was to generally discuss the situation in California as to the things he was trying to do. There were a great many of these conferences and the particular thing that I was to help him **[2529]** about was the investigation of the conduct of the land department and in pushing the patenting of lands. I had no concern or interest in having the patenting of these particular lands pushed ahead rapidly in any way because of their known or hoped-for oil character. I had no idea what lands Mr. Eberlein was applying for and never concerned myself with that at all. My interest was not in any way influenced by hope or wish on my part to acquire lands that should be used for the production of oil. We had at

that time a great many thousand acres of land in our possession which we thought was oil land which we thought was enough to keep us busy for a long time. On numerous occasions offers of land were made to the company which were said to be choice lands, but I always answered that we had enough of our own to keep us busy for years and that I didn't propose to recommend the acquisition of any more. I desire to state with all the emphasis at my command that I had nothing to do with the patenting of lands except as already stated and I had no interest whatever in pushing the patenting of these particular lands in dispute.

I was not concerned or solicitous about obtaining a patent to these particular lands as distinguished from any other lands. My interest was simply and solely to carry out the instructions of my superior officer, the president, to help matters along and that Mr. Eberlein was engaged in. Neither Mr. Eberlein nor Professor Dumble or anybody else told me in 1903 or 1904 that these particular lands involved in the present suit were desirable because they were in the vicinity of oil fields and might produce oil. No one ever told me that. I did receive maps sent in response to requests, many of which were marked possible oil lands, but these did not include any of the lands involved in this suit. Until I heard of some of this friction between Mr. Eberlein and Mr. Dumble to which I have already referred, I had no idea that Mr. Eberlein was trying to patent any lands any-

where near [2530] the lands that had been even examined by Mr. Dumble and his assistants.

I did not see defendants' Exhibit No. 157, the map which you say Professor Dumble testified was sent him in 1903 by Mr. Owen, until some time in 1912, when Mr. Dumble showed it to me. The date, March 25, 1903, in pencil on that map was put there by me at that time to indicate the date of the map. If I had seen this map in 1903 and had also known at that time that Mr. Eberlein was asking for a patent to lands in township 30-23, I would not have thought that his application was irregular. The legend on the margin of this map shows a yellow square and opposite it the words "land supposed to contain oil" and none of this yellow color appears in township 30-23. The anticlinals represented on this map running through the south half of township 30-23, would not have led me to believe that the application was irregular as the legend on the map distinctly states that the lands supposed to contain oil are colored yellow and there is none of this color anywhere near the anticlinals in that township. My understanding is that an anticline is the ridge of a hill and that its existence does not mean that there is necessarily oil. There are other anticlines shown on this map which are colored yellow, but the one in township 30-23 is not.

If it had been my purpose in 1903 to fraudulently obtain a patent to the lands involved in this suit in township 30-23, it would have been the height of folly for me to have advised or permitted the execution of a lease to the Kern Trading & Oil Company, including

section 31 in that township and other sections adjoining section 31.

There was no plan on the part of the railroad company to obtain patents to lands near known oil fields in the hope that lands so patented would turn out to be oil land. There was never any thought of that sort; still less any attempt made. I don't **[2531]** think that any of the employees of the company under my supervision in the oil development department could have had any part in such an attempt without my knowing it sooner or later, and I have never heard the slightest suggestion of their being engaged in anything of that sort. In the latter part of May 1912, I read what purported to be an interview given out by the Attorney General in which it was suggested that the higher officers of the Southern Pacific would be shown to have been involved in fraudulent entries of oil lands. There was absolutely no truth in that statement.

Cross-Examination.

I do not know whether Mr. Eberlein's selection of the land involved in this suit was the first one that was made by him. I was not concerned with the question of patenting other than that I on one or more occasions did forward letters in which he requested that the patenting of lands be expedited.

My attention has been called to the Chambers' letter of October 12, 1903. In forwarding this letter I did not pay any attention to the location of the lands, my object being simply to assist Mr. Eberlein.

I had been in McKittrick prior to that time on several occasions beginning probably shortly after 1895,

but I cannot give you the dates. I remember being there with Mr. Treadwell but I cannot specify the year.

In 1903 and 1904 I was a director and second Vice-President of the Southern Pacific Railroad Company and as I recollect it, I held these positions for several years before I left California. But as such officer I had nothing to do with the land matters of that company except to the extent I have already testified and it is not true that I had immediate charge of its land affairs.

When the geological department of the Southern Pacific Company was organized it was the understanding with our geologist **[2532]** that he should examine from time to time any and all lands owned by any of our railroad companies. It is possible that I directed Mr. Dumble to examine lands owned by the Southern Pacific Railroad Company as early as 1902 and I may have done the same thing with Mr. Treadwell, his predecessor. I have no recollection of this, however. I do not remember ever giving any orders to Mr. Owen and don't think that I did as I made it a rule not to give a man orders except through his superior officer. I have no doubt talked to Mr. Dumble about these matters but I don't think I ever gave Mr. Owen any orders direct.

It is also possible that I may have requested lists of land from the land department of the Southern Pacific Railroad Company. And it is possible that on some of these maps unpatented areas may have been included, but that was not because of any request of

mine. I remember seeing Mr. Owen in my office some once or twice but I do not recollect what he came to my office for.

I don't remember going in to the oil fields with either Mr. C. P. Huntington or Mr. H. E. Huntington. Mr. C. P. Huntington died in 1900. Mr. H. E. Huntington had charge of the lands of the Southern Pacific Railroad Company up to the time Mr. Harriman assumed the presidency of the Southern Pacific. I do not have the least recollection of meeting L. G. Sarnow, who you say testified that he had met me in the old field with Mr. Huntington.

Before Mr. Dumble took charge of operations in the oil field, Mr. Treadwell was developing oil for us and he reported to me concerning his work. I had considerable confidence in him at the time and I have never had any cause to abate any of this confidence. Mr. Treadwell was a fairly good oil expert for his time. He was engaged by me in California and was later asked to go down to Texas to see if we could get some oil wells there for the use of the company. He bought two or three pieces of land for us at Spindletop in Texas and I know he bought other pieces which we **[2533]** did not care to take over and which he retained himself. He also bought some small pieces of land for us near the town of McKittrick in California. He bought these in his own name, no doubt to cover up the fact that our company was purchasing the lands. All of these purchases were referred to me and I did not approve all of these that he made and he afterwards kept some of the lands for himself. There

was no secrecy, however, about the fact that he was the oil expert of the company. There never was any question or difficulty with Mr. Treadwell concerning the purchase of these lands or concerning the money used by him. We have a good accounting system and I know that we did not pay for any lands that we did not receive.

I do not believe that I ever directed Jerome Madden, the land agent of the Southern Pacific Railroad Company, to withdraw from sale land in Kern County which I believed to be valuable for petroleum. Such orders were given to Mr. Madden quite frequently but not by me as I had nothing to do with him or his department. I would write letters to Mr. Harriman stating what lands I thought should be reserved and he would either pass the letter to Mr. Madden or in some other way would have the reservation made.

Neither Judge Cornish nor Mr. Eberlein had anything whatever to do with the work that Mr. Harriman had instructed me to do, which was to get the Southern Pacific locomotives burning oil just as quickly as I could. There was no effort to keep Judge Cornish or Mr. Eberlein in the dark about the operations of the Kern Trading & Oil Company. There was no darkness, there was no secrecy, there was no intimation of fraud until ten or twelve or thirteen years after this company was formed. There was no reason why Judge Cornish and Mr. Eberlein should be consulted about the affairs of the Kern Trading & Oil Company. Mr. Harriman had instructed me to develop oil and to use it on the locomatives. The details

by which these lands were to be transferred were no doubt [2534] decised by the Law Department. I don't know at that time just what the reasons were, but at any rate it was determined to form the Kern Trading & Oil Company to develop oil, to purchase oil and to handle existing leases. The Southern Pacific Company controlled all of these lands and the sub-lease to the Kern Trading & Oil Company was only made for bookkeeping and accounting purposes. There was never any secrecy about it.

It was not necessary to get Mr. Eberlein's signature to this lease, although it was desirable as a matter of form. I considered it of very little importance whether Mr. Eberlein signed the lease or not and in fact we proceeded with the development of oil regardless of the fact that he refused to sign the lease.

As I have stated, it is my impression that Mr. Eberlein refused to sign this lease because of pique, owing to the fact that he had not been consulted and considered himself slighted. It is also probable that owing to the fact he was charged with the selection and patenting of lands he felt that the leasing of adjoining lands for oil purposes might throw some doubt on his selection, just as a man might feel who desired to acquire farming lands from the government and whose tenant was discrediting his representations to the government by carrying on mining operations on adjacent land.

I do not think that I ever saw the letter written by Mr. Eberlein to Judge Cornish dated September 3, 1904, appearing at page 1775 of the transcript.

Taken in connection with other parts of the letter, the part that has been referred to warrants the conclusion that Mr. Eberlein was piqued. The latter part of the letter was evidently intended to excite some fear in the mind Mr. Cornish, as he had evidently tried to excite fear in the minds of Mr. Dumble and others, that if this lease was persisted in it would get us in trouble with the government. I do not think that Mr. Eberlein had just cause to protest against the activity of Mr. **[2535]** Dumble examining lands for their oil character which were not yet patented as I do not believe that any such thing occurred.

It was none of Mr. Dumble's business to examine unpatented lands. But if he did so I think it is quite natural that Mr. Eberlein should object. The assumption that Mr. Dumble did make such examinations is altogether hypothetical, but if he did so Mr. Eberlein's fear of being embarrassed in the land office in getting patents was quite natural. He had had experience of this sort because the land office had, in 1900, kept back a large area of lands and delayed patenting them for several years because of suspicion that there was oil on them and after this long delay they finally issued the patents. If I had known that Mr. Dumble was doing anything of that kind I would have stopped it.

I do not think that the map sent Mr. Dumble by Josiah Owen with his letter of March 25, 1903, indicates that Mr. Dumble was making examinations of unpatented lands. The identical indication on this map of anticlinals running outside of the company

lands does not show that such examinations were made. I did not see this map until 1912. I have no recollection of seeing a map that represented anticlines on its before that time.

Reverting to the question of the authority of the Kern Trading & Oil Company to operate on lands of the Southern Pacific Railroad Company without the lease being signed by Mr. Eberlein, I will say that according to my understanding, this was done entirely within our legal authority and I am convinced that I had the right because nobody ever objected to our operating on the lands. Mr. Eberlein objected to signing the lease but that was all. The Southern Pacific Company owned the stock of the Southern Pacific Railroad Company and that carried the ownership of everything that the latter company owned. I have explained that I was acting under the directions of the president of both of these companies and I did not attach any importance then nor do I now, **[2536]** to the fact that Mr. Eberlein did not sign the lease.

Referring to the letter which Mr. Dumble wrote Mr. Bancroft on December 7, 1904, speaking of a conversation he had with Mr. Eberlein, I will say that in my opinion this was a perfectly proper letter and I think Mr. Dumble would have been unreasonable if he refrained from respecting Mr. Eberlein's objections. I should have said the same thing if Mr. Eberlein had told me that the lease was embarrassing him in anything that he was doing. I did not know anything about the conversation between them, referred to in this letter, although Mr. Dumble may have sent

me a copy of the letter at the time. I consider the conversation of very little importance.

If, as you say, it is testified Judge Cornish advised the keeping of the papers regarding the execution of that lease in a separate file and decided to burn or destroy his part of the correspondence, the information is interesting and curious. I know nothing about it and Mr. Eberlein never told me anything about it and I cannot conceive of any reason why Judge Cornish should have destroyed the papers or why he should have told Mr. Eberlein that he did.

The later lease of December 12, 1907, appears to have been signed by Mr. E. E. Calvin as an officer of both the Southern Pacific Railroad Company and the Kern Trading & Oil Company. In 1903 I was myself an officer of both companies and might have myself executed that lease on behalf of one company and accepted it for the other, which is apparently what Mr. Calvin did in 1907. I do not see how any question whether this would be lawful or not comes in as nobody could object except a stockholder or bondholder. There was no stockholder to object because there was only one, that is the Southern Pacific Company, and as to the bondholders, they have all been paid off.

I have repeatedly said that this lease was not kept **[2537]** secret and I don't know why it was not recorded, but my opinion is that it didn't make a particle of difference whether it was recorded or not. It was unnecessary to have any lease at all except for bookkeeping and accounting purposes and to prevent

the land department from selling lands that the company owned and which we wanted to develop for oil.

I paid a great deal of attention to the preparation of the papers in connection with this transfer to the Kern Trading & Oil Company, but this was not because I regarded the lease itself as important. I no doubt hurried the matter up, through a habit I have that whatever is on my desk unattended to I want wound up and gotten out of the way. I was anxious that the development of oil should proceed with all due diligence, but I can only repeat that I never attached any great importance to the lease, and knew, at the time, that the mere preparation of the lease, or the refusal to sign the lease, would not have any effect on our developing oil. But it is like any other matter —I have a great many matters of detail which I am anxious to have closed up because they ought to be closed although of no great importance.

When I received the Chambers' letter of October 12, 1903, I paid no attention to the lands involved and simply acted as an intermediary to use the influence of my office with our attorney in Washington to get him to comply with Mr. Eberlein's request. At that time I had no idea where the lands were or what the object of hastening the patent was, except that I knew that Mr. Eberlein had been charged in a general way with expediting the patenting of all unpatented lands. A description in this letter of lands by section and township numbers would produce no impression on my mind as to where the lands were as I cannot now tell you what township McKittrick is in and it would

be necessary for me to locate any such lands by reference to a map. [2538]

I have no doubt that when I got Mr. Eberlein's letter I sent it on to Mr. Chambers and when I got his reply of October 12, 1903, that I sent it to Mr. Eberlein. If I had ever paid any attention to this letter the information in it to the effect that the government was sending Mr. Ryan to make an examination of the land, ought to have convinced me that there was no fraud in the matter. Besides the Kern Trading and Oil Company the Southern Pacific Company was operating the Rio Bravo Oil Company in Texas, which is the oil department of the Texas companies, and the East Coast Oil Company in Mexico.

It owns a little over fifty per cent of the stock in the Associated Oil Company, operating in California. It owns stock in the Reward Oil Company, and perhaps in other small companies in the McKittrick that was bought by Mr. Treadwell. He could not get the property and he bought stock in those companies for the purpose of helping out our oil supply.

Q. Now, the Southern Pacific Company acquired its control by stock ownership in the year 1907, did it not?

A. That I don't remember.

Q. Or 1906, about, to the best of your recollection?

A. No. My recollection is that the Associated Oil stock was bought by the Southern Pacific as long back as 1903 or '04, when I was in California. I don't know

when they acquired control. That is a matter that I had nothing to do with.

Mr. Mills—Now, I would like to offer in evidence, without taking any of the time of this witness, just these pages referring to the Associated Oil Company.

The Witness—Well, we will substitute others.

Mr. Mills—I won't take this away; just have it copied into the record.

The Witness—I think we have some unbound copies of it we can give you? **[2539]**

Mr. Mills—I offer pages 6 and 7 of the manual No. 9, for 1911, in evidence. Also, page 8, with reference to the Associated pipe-line. And, from manual No. 10, of 1912, I offer pages 6, 7 and 8, all of which I will read into the record as follows.

Mr. Lewers—I desire to object to the offer, on the ground that the matter offered is irrelevant to any issue in this case, and on the further ground that it is not cross-examination.

"MANUAL NO. 9-1911 SOUTHERN PACIFIC AND AUXILIARY COMPANIES, JANUARY 1, 1911.

(page 6)

Associated Oil Company.

Incorporated, California, October 5, 1901, for 50 Years.

Annual Meeting Oil Center, Cal., first Tuesday in April.

Notice to be given ten days previously by publication **[2540]** in one or more newspapers published in

the County of Kern and in the City of San Francisco, or in writing signed by the President and delivered to each stockholder.

Regular meetings of Directors, Oil Center, first Tuesday of April and October, without notice. Special meetings, at call of President in two days' notice —usually held first Tuesday of each of the remaining months.

Fiscal year closes December 31.

Capital stock: authorized and issued, $40,000,000. Shares, $100. each.

Funded Debt.

First Mortgage Gold Bonds: authorized, $5,000,000; outstanding, $2,384,000; dated August 1, 1902; due August 1, 1922. Interest, 5 per cent., gold; payable February and August. Trustee, Union Trust Co. of San Francisco.

First Refunding Mortgage Gold Bonds: authorized $25,000,000; outstanding, $10,712,000; dated January 15, 1910; due January 15, 1930. Interest, 5 per cent., gold payable January 15 and July 15. Trustee, Union Trust Co. of San Francisco. Directors (11), elected February 28, 1910:

F. R. Buck.....San Francisco.
J. A. Chanslor..... "
E. T. Dumble..... "
Burton E. Green,.....Los Angeles
Rudolph Herold, Jr.,.....San Francisco.
Wm. F. Herrin,..... "
J. C. Kirkpatrick,..... "

W. S. Porter,..... "

[2541]

R. P. Schwerin,.....San Francisco

O. Scribner, ... "

Paul Shoup, ... "

Executive Committee (5), elected February 28, 1910:

F. H. Buck,

Wm. F. Herrin,

J. O. Kirkpatrick,

W. S. Porter,

R. P. Schwerin (May 3).

(page 7)

Officers, elected February 28, 1910:

Wm. F. Herrin, President,.....San Francisco

W. S. Porter, First Vice-President and General Manager,..... "

J. A. Chanslor, Vice-President,..... "

Paul Shoup, Vice-President,..... "

R. H. Giles, Vice-President,.....New York

G. Sheridan, Secretary (Dec. 6, 1910) .....San Francisco

G. Erret, Assist. Secretary (Dec. 6, 1910) ..... "

J. L. Bruce, Assistant Secretary.....Oil Center, Cal.

R. G. Page, Assistant Secretary,.....New York

W. A. Sloan, Treasurer,.....San Francisco

R. T. Fisher, Assistant Treasurer (Dec. 6, 1910)..... "

O. Scribner, Assistant General Manager, ... "

[2542]

Bankers Trust Co., Transfer Agent for Stock, ...New York
Guaranty Trust Co., Registrar for Stock, "
C. B. Smith, Transfer Agent for Stock .....San Francisco
Union Trust Co., Registrar for Stock, ... "
O. C. Kahn, Transfer Agent for Bonds,..New York
J. A. Simpson, Transfer Agent for Bonds, ... "

(page 8)

Associated Pipe Line Company.

Incorporated, California, August 22m 1907, for 50 Years.

Annual Meeting, San Francisco, first Tuesday in August, Notice to be published in a San Francisco newspaper, or mailed to stockholders, at least ten days previously.

Regular meeting of Directors, second Tuesday of each month, at noon.

Fiscal year closes June 30.

Capital Stock: authorized and issued, $7,000,000. Shares, $100. each.

Owned, in equal proportions, by Kern Trading & Oil Co. and Associated Oil Co.

Directors (5) elected August 20, 1907:

F. H. Buck,.....San Francisco
E. E. Calvin,..... "
Wm. F. Herrin,..... "
Geo. L. King,..... "

W. S. Porter,..... "

[2543]

Officers, elected August 23, 1907:

W. S. Porter, President.....San Francisco
Wm. F. Herrin, Vice-President,.... .. "
P. G. Williams, Secretary (Dec. 14, 1908) ..... "
W. A. Sloan, Treasurer (Mar. 25, 1909) ..... "
A. D. Heur, Manager,..... "

MANUAL NO. 10—1912 SOUTHERN PACIFIC AND AUXILIARY COMPANIES.

January 1, 1912.

(page 6)

Associated Oil Company.

Incorporated, California, October 7, 1901, for 50 Years.

Annual Meeting, Oil Center, Cal., first Tuesday in April. Notice to be given ten days previously by publication in one or more newspapers, published in the County of Kern and in the City of San Francisco, or in writing signed by the President and delivered to each stockholder.

Regular meetings of Directors, Oil Center, first Tuesday of April and October, without notice. Special meetings, at call of President on two days' notice—usually held first Tuesday of each of the remaining months.

Fiscal year closes December 31.

Capital Stock: authorized and issued $40,000.00 Shares, $100. each. **[2544]**

FUNDED DEBT.

First Mortgage Gold Bonds: authorized, $5,000,000; outstanding, $2,265,000; dated August 1, 1902; due August 1, 1922. Interest, 5 per cent., gold; payable February and August. Trustee, Union Trust Co. of San Francisco.

First Refunding Mortgage Gold Bonds; authorized $25,000,000; outstanding, $14,012,000; dated January 15, 1910; due January 15, 1930. Interest, 5 per cent., gold; payable January 15 and July 15. Trustee, Union Trust Co. of San Francisco.

Directors (11), elected April 2, 1912:

F. H. Buck,.....San Francisco
J. A. Chanslor,..... "
Frank G. Drum,..... "
Rudolph Herold, Jr.,..... "
Wm. F. Herrin,..... "
J. C. Kirkpatrick,..... "
A. D. McDonald,..... "
W. S. Porter,..... "
R. P. Schwerin,..... "
Guy V. Shoup,..... "
M. H. Whittier,.....Los Angeles.

Executive Committee (5), elected April 2, 1912:

F. H. Buck.
Wm. F. Herrin.
J. C. Kirkpatrick.
W. S. Porter.

Wm. Sproule. **[2545]**

(Page 7)

Officers, elected April 2, 1912:

Wm. F. Herrin, President,.....San Francisco.
W. S. Porter, First Vice-President
and General Manager,..... "
F. B. Henderson, Assistant General
Manager, ... "
J. A. Chanslor, Vice-President,..... "
J. R. Lewis, Vice-President.....New York.
G. Sheridan, Secretary, ...San Francisco.
C. L. Coppage, Assistant Secretary, "
J. L. Bruce, Assistant Secretary....Oil Center, Cal.
R. G. Page, Assistant Secretary.....New York.
W. A. Sloan, Treasurer,.....San Francisco.
R. T. Fisher, Assistant Treasurer,.. "
P. G. Williams, Auditor,..... "

Bankers' Trust Co., Transfer Agent
for Stock .....New York
Guaranty Trust Co., Registrar of
Stock, ... "
R. T. Fisher, Transfer Agent for
Stock, ...San Francisco
Union Trust Co., Registrar for
Stock and Bonds,..... "
O. C. Kahn, Transfer Agent for
Bonds, ...New York
J. A. Simpson, Transfer Agent for
Bonds, ... "

(Page 8)

ASSOCIATED PIPE LINE COMPANY.

Incorporated, California, August 27, 1907, for 50 Years.

Annual Meeting, San Francisco, first Tuesday in August. Notice to be published in a San Francisco newspaper, or **[2546]** mailed to stockholders, at least ten days previously.

Regular meeting of Directors, second Tuesday of each month, at noon.

Fiscal year closes June 30.

Capital Stock: authorized and issued, $7,000,000. Shares, $100 each. Owned, in equal proportions, by Kern Trading & Oil Co. and Associated Oil Co.

Directors (5), elected August 20, 1907:

F. H. Buck,.....San Francisco.
E. E. Calvin,..... "
Wm. F. Herrin,..... "
Geo. L. King,..... "
W. S. Porter,..... "

Officers, elected August 23, 1907:

W. S. Porter, President,..... "
Wm. F. Herrin, Vice-Presidnt,..... "
P. G. Williams, Secretary (Dec. 14, 1908) ..... "
W. A. Sloan, Treasurer (Mar. 25, 1909) ..... "

E. T. Morris, Manager,.....San Francisco."

Thereupon the witness continued as follows: **[2547]**

I never heard that Mr. Dumble advised his associates to locate even sections adjoining the lands in this suit. I never heard that Mr. Owen advised Mr. S. P. Wible or others to locate the even sections adjoining these lands in the Elk Hills for petroleum and I could hardly believe that he did because the map, Defendants' Exhibit 157, he prepared, indicates that these lands were of no value for oil. On that map he indicates lands supposed to contain oil by yellow coloring and did not color any part of township 30-23 in this way, but he did color one section and two quarter sections in this township in another way to indicate a possibility of oil. He did not confine this coloring to patented holdings of the company as there are a number of even-numbered sections on this map that are colored yellow. I think that probably one of the objects of making this map was to show lands that should be reserved from sale and the legend bears this out. My understanding is that the map represents a study made by Mr. Owen of oil indications and geological features in that part of California and it shows some of the lands owned by the railroad company and some that it did not own.

As I remember it, this recommendation of a reservation was in continuance of the policy Mr. Treadwell had recommended and in compliance with instructions that I gave the employees in the oil department as it was called at that time, to inform me what lands owned by the company they thought should be reserved from sale. I was afraid that the land department would let these get away from them

as they had lands in the Bakersfield district which were sold at $2.50 an acre while Mr. Madden was land agent.

I cannot assume that Mr. Owen believed that the lands in township 30-23 were valuable for oil in the light of this map. He made other maps which were sent me in September, 1903, which went over the whole matter and in these he dropped from consideration the quarter sections in sections 17 and 19 and evidently **[2548]** thought they were of too little value to notice. On these maps he recommended the reservation of only one section in that township. Mr. Owen is dead; his reputation was valuable to him, no doubt is to his family. I have never had the slightest reason to doubt Mr. Owen's fidelity, honesty and reliability.

The testimony of Mr. Gorge A. Stone in this case, to which you have referred, would have very little effect on my opinion, as I understand he is very old, very infirm and a physical wreck. I think he is a pensioner of the Southern Pacific Company now, but I did not know that until it was mentioned in this suit. If he is pensioned his pension is based on a fixed percentage of his former salary.

I received a letter from Mr. Stone dated January 8, 1908, Plaintiff's Exhibit 5-N, enclosing a copy of a letter of the same date to Mr. E. E. Calvin, in which he complained of being dismissed by Mr. Eberlein and asked for an investigation and that he be transferred to some other department. I later received a letter from him dated March 23, 1908, in which he complained that Mr. Eberlein had forced him out of his

position as Assistant Land Agent, and said: "I served the company faithfully and well many years, and hoped that its interests would always be mine, but if a hearing and fair treatment are not accorded me without further delay my services will be at the disposal of the Newspaper press, the United States Attorney General and others."

Attorney for the Government thereupon introduced in evidence and read into the record, a letter dated March 23, 1908, addressed to J. Kruttschnitt by George A. Stone, which heads as follows: "Berkeley, March 23, 1908. Mr. J. Kruttschnitt, San Francisco, California. Dear Sir:—On January 8, 1908, I addressed you at Chicago enclosing copy of a letter I had that day sent to Mr. E. E. Calvin relative to action taken by Mr. Eberlein in forcing me out of my position as assistant land agent. To this [2549] letter Mr. Calvin replied briefly that he had no jurisdiction over the affairs of the land department, and could offer me no other employment.

On February 14, 1908, I addressed a letter to Mr. Eberlein (copy enclosed herewith) suggesting retirement if my services were no longer desired by the Company. To this letter no reply has been received.

I served the Company faithfully and well many years, and hoped that its interests would always be mine, but if a hearing and fair treatment are not accorded me without further delay my services will be at the disposal of the Newspaper Press, the United States Attorney General and others.

Trusting that you will be able to give this matter some attention while in San Francisco, I remain, Very respectfully yours, Geo. A. Stone 2635 A. Channing Way, Berkeley, Cal. Telephone Berkeley 1825"—which was marked "Plaintiff's Exhibit 5 L. Also, a letter dated February 14, 1908, addressed to Charles W. Eberlein by George A. Stone, which reads as follows: "Copy 2535 A. Channing Way, Berkeley, Cal. February 14, 1908. Mr. Charles W. Eberlein, Acting Land Agent S. P. R. R. Co. James Flood Building San Francisco, Cal. Dear Sir:—Will you kindly advise me whether the Company is willing in any way to show its appreciation of my faithful service of over thirty-five years. If the Company has no further use for my services, as would appear from recent correspondence with yourself and other officials, it seems to me, that as I have nearly doubled the length of service required for retirement, I may properly be placed on the shelf with disabled and superannuated veterans. Thanking you in advance for your kindly offices in my behalf, I remain, Yours truly Geo. A. Stone."—which was marked "Plaintiff's Exhibit 5 M." Also, a letter dated January 8, 1908, addressed to J. Kruttschnitt by George A. Stone, which reads as follows: **[2550]**

"Dear Sir: I enclose herewith copy of letter mailed today to Mr. Calvin asking for transfer from Land Dept. to other service. As land examiner and asst. land agent I have obtained a knowledge of the lands and records not possessed by any other official or employe of the company, but not-withstanding this,

and though I have for several years borne a large part of the burden, Eberlein has seen fit to force me out. I think the quality of my work and the confidential character of my employment in land department indicate that the best interests of the Company will be served by not turning me down after long and faithful service, Mr. John D. Isaacs has known me for many years. Yours respectfully Geo. A. Stone 169 Tenth St Oakland, California."—which was marked "Plaintiff's Exhibit 5 N." Also, a letter dated January 8, 1908, addressed to E. E. Calvin by George A. Stone, which reads as follows:

"Dear Sir:—Have received a letter from the Acting Land Agent of the Southern Pacific Railroad Co. advising me that my resignation as Asst. Land Agent was accepted, to take effect December 31, 1907. As I have not tendered my resignation, and am not aware of any good cause for dismissal, it would appear that I am to be dropped to satisfy the whim or prejudice of an erratic official, and as this is not the kind of treatment usually accorded to employes by the Southern Pacific Company, I hope that you will, in fairness to me, and for the best interests of the Company, carefully investigate the matter and arrange for a transfer to some other employment. I commenced service as a flagman with engineering party of Central Pacific R. R. Co. July, 1865, and have been in active service of the Harriman System over thirty five years, during that period serving as engineer on reconnoissance, location, construction and maintenance under Mss. Montague, Clement, Curtis and Hood, and for

the past ten years in the Southern Pacific Land Dept as land examiner under Madden and Asst. land agent under Eberlein. **[2551]**

Recent illness and death in my family have prevented me earlier submission of the matter. Yours respectfully Geo. A. Stone 169 Tenth Street Oakland, California.

Copy to Mr. Kruttschnitt

Copy to Judge Cornish"—which was marked "Plaintiff's Exhibit 5 O".

When I got these letters, I could only guess at what Mr. Stone meant as he did not refer to anything specific. As the matters he mentioned did not concern me I referred the papers to Judge Cornish. I regarded the letter as impudent and cryptic, but I did not have him peremptorily discharged because I had no jurisdiction over him or Mr. Eberlein.

Judge Cornish was Mr. Eberlein's superior and had supervision over the land department of the Southern Pacific Railroad Company. Mr. Eberlein was sent to California for the purpose of expediting the patents to which the railroad company were entitled and also to investigate the conduct of the land department. Naturally we suspected that something was wrong when we found that the company's lands in the Kern River district had all been sold at grazing land prices. Apparently everybody knew that there had been an oil discovery there before we did and the result was that these lands were sold for a mere pittance. It was part of Mr. Eberlein's duty to investigate these departments for dishonesty or graft, which I am very

glad to say he didn't find. It was stupidity—nothing worse.

As I say, Mr. Eberlein was in a different department and our relations were cooperative only. If I had known at that time that the government had withdrawn these lands from patent because they were suspected to contain petroleum, I certainly would have considered that the government's interests were amply protected when they sent Mr. Ryan there to examine these lands. He evidently reported that the lands did not contain oil and a patent **[2552]** was issued to the company. I assumed naturally, that Mr. Ryan, being an officer of the government, was competent and his opinion should be relied on. I am here today under the imputation of fraud based on the opinions of other officers of the government.

RE-DIRECT EXAMINATION
of
JULIUS KRUTTSCHNITT

When I received Mr. Stone's threatening letter I replied to him that I had no jurisdiction over the land department and that I was referring his letter to Judge Cornish. I wrote the letter saying: "Please consider the matter referred to you for such disposition as may to you seem proper." If I had been aware of any irregularity affecting Professor Dumble or my department in connection with this matter I should probably have referred these letters to Mr. Dumble and his people and asked for an explanation. The Stone letter meant absolutely nothing to me,

however, and I attached no importance to it as my action at the time shows.

I probably took the first Stone letter with me on a trip to New York because on February 13, 1908, I wired Judge Cornish, saying: "You were to advise me further in regard to George A. Stone." And again on the 19th of the same month I wired him from Chicago asking him to let me know what the trouble was with Stone. On February 24th he wired me, saying, "As near as I can judge George A. Stone was dropped in the interest of economy and because he was no longer fitted for the kind of work he preferred to do."

I cannot remember at this time any conversation with Judge Cornish about this matter and I attached no importance to it.

I had nothing to do with the pensioning of Mr. Stone. The pensioning of superannuated veterans, as he calls himself, is[2553] handled entirely by the local pension board which is located in San Francisco. If Mr. Stone was entitled to a pension, granting it was no favor to him as he was being granted rights already given him and all other employees years before by the board of directors.

Exhibit No. 158 shows that the railroad company in 1904 already owned 7½ sections in township 30-23 and had selected for patent about 9½ sections. The colors on this map indicate that only one section, that is 31, in that township, was included in lands leased to the Kern Trading & Oil Company, and 6½ sections which the company owned in that township were evidently considered not valuable enough to even put

in the lease. The Owen map of March 25, 1903 (Exhibit 157) shows only one whole section and two quarter sections that he recommended to be reserved from sale, although it appears from the map, Exhibit 158, that the company actually owned 7½ sections in that township at that time. **[2554]**

FRANK SHAY

Sixty-eighth Witness for Defendants. San Francisco. July 2nd, 1913.

Direct Examination.

I am an attorney in the Law Department of the Southern Pacific Company and have been connected with that company for thirty-eight years. I was acquainted with Jerome Madden, Land Agent of the Southern Pacific Railroad Company in his lifetime. He died several months ago. I am familiar with his signature as I have seen him write his name many times.

I identify his signature to Exhibit No. 166, a letter purporting to be dated January 19, 1903, and addressed to Mr. Charles W. Eberlein, 120 Broadway, New York.

P. G. WILLIAMS

Sixty-ninth Witness for Defendants. San Francisco.

Direct Examination.

I am an auditor of the Associated Oil Company and have been since September 1st, 1908. I have charge of the accounts of that company and have kept an account of the expenditures of the Associated Oil Company in the Elk Hills for development work there and

have prepared a statement from these original accounts showing the total amount expended there.

My company maintains a very elaborate system of accounting whereby expenses are apportioned to each piece of work that is being carried on so that we are enabled to charge to an individual well its own expense. The charges incurred in the development of the Elk Hills property were segregated absolutely from those situated elsewhere.

Up to April 30, 1913, the total amount expended by the Associated Oil Company in development in the Elk Hills was $517,613.94. No portion of this was expended for purchase of the lands. **[2555]**

(The statement referred to introduced in evidence, and marked Defendants' Exhibit No. 167, and is as follows:)

"ASSOCIATED OIL COMPANY
STATEMENT OF EXPENDITURES ACCOUNT
DEVELOPMENT IN ELK HILLS
AS OF APRIL 30, 1913.

	Labor	*Material*	*Total*
Structures and Buildings	$1,801.61	4,038.67	5,840.28
New Oil Lines	4,631.68	40,993.80	45,625.48
New Oil Wells (Statement No. 1)	79,067.10	94,239.47	173,306.57
New Oil Wells (Statement No. 2)	77,418.49	127,325.81	204,744.30

New Water Systems	6,430.87	40,649.12	47,079.99
New Telephone Systems	61.37	543.05	604.42
Miscellaneous Improvements	7,334.67	4,546.88	11,881.55
	176,745.79	312,336.80	489,082.59
Miscellaneous Expenditures accruing in period to date account of litigation			28,531.35
Grand Total All			517,613.94

Issued by Accounting Department,
San Francisco, Calif.
July 2, 1913.

Correspondence in relation to this statement should be addressed to the Auditor."

I have not prepared a segregated statement showing the individual costs of each of the wells up to April 30, 1913, but I did prepare such a statement up to December 31, 1912, from which it appears that well No. 3 in section 24 of township 30-23 cost $56,831.78. Well No. 1 in section 26 of the same township cost $57,725.33, and Well No. 1 in section 30 of township 30-24 cost $66,131.53.

I have also prepared from our records, statements of the production of the Associated Oil Company's wells in the Elk Hills. These statements were made

up from regular reports or letters of advice sent in by the superintendent in charge from **[2556]** time to time. These wells were distinct from our regularly producing wells as they were producing when they were still being drilled and we have a form for reparting production of that kind from which these statements were taken. These reports were received in the regular course of our business.

Based upon these reports, the total production of well No. 1 in section 30 of township 30-24 was as follows:

January, 1912	687 barrels
February,	560.70
March,	320
April,	130.45
May,	204
June,	73
July,	260
August,	30
Total	22,651.15

Similar reports show the production of Well No. 1 in section 26 of township 30-23 to have been as follows:

"September, 1911	680 barrels
October,	730
November,	327
December,	333
January, 1912	256.09
February,	229.98

March,	210.73
April,	224.53
May,	219.74
June,	200.
July,	360.08
August,	303
Total	4,074.15"

Similar reports show the production of well No. 3 in section 24 of township 30-23 to have been as follows:

"May, 1912	240 barrels
June,	2,965
July,	247
August,	150
Total,	3,602"

[2557]

(Defendants' Exhibit No. 168-LL.)

"ASSOCIATED OIL COMPANY
COMPANY
BUSINESS

In your reply please refer to
(Rubber stamp: File No. 37-1-3
T.F.J. FEB 12 1912)

Fellows, Calif. Feb. 10th, 1912.

Mr. P. G. Williams, Auditor,
San Francisco, Calif. (In pencil: Bunker)

Dear Sir:

The following is monthly production report of Elk Hills Sec. 30, well No. 1, for the month of January:

Elk Hills Sec. 30

Oil on hand Feb. 1st, in E. H. Oil Line No. 1	348.00
In Sump Hole,	150.00
Oil used for fuel,	189.00
	687.00
Oil on hand Jan. 1st, 1912	000.00
Net production	687.00

The 348 barrels referred to above were run into Elk Hills Oil Line No. 1, and did not reach the tanks on the Pioneer Midway.

The 150 barrels are on hand in the sump hole at Sec. 30, E. H.

Yours truly,

L. J. King R.
Supt. Midway Div.

CLG/W
cc-WSP
FBH
AFLB

[2558]

ASSOCIATED OIL COMPANY
Company Business
In your reply please refer to
File No. 37-3-1

Fellows, Calif. March 2nd, 1912.

Mr. P. G. Williams, Auditor,
San Francisco, Calif.

Dear Sir:

The following is report of Elk Hills Sec. 30, well No. 1, production for the month of February, 1912:

Elk Hills Sec. 30 Well No. 1

Oil on hand March 1st, In line	348.00
Oil on hand in tank No. 10454	181.70
Oil on hand in Sump	120.00
Fuel burned,	194.00
Fuel delivered through line to Lake Sta. A.	65.00
	908.70
Oil on hand in line Feb. 1st, 1912	348.00
	560.70

Oil on hand in Tank No. 10454, both Sec. 26 and Sec. 30, 496.70 net barrels.

Yours truly,

CLG/W. L. J. King W.
cc-WSP Supt. Midway Div.
FBH
AFLB

[2559]

ASSOCIATED OIL COMPANY

CARBON COPY 37-3-1
DUPLICATE

Fellows, Calif. April 5th, 1912.
(RUBBER STAMP: RECEIVED APR 8, 1912)

Mr. P. G. Williams, Auditor,
San Francisco, Calif.

Dear Sir:

The following is report of Elk Hills Sec. 30, well No. 1, production, for the month of March 1912:

Elk Hills Sec. 30, Well No. 1

Oil on hand April 1st, 1912	None
Fuel Burned,	190.00
Oil on hand in Sump,	250.00
	440.00
Oil on hand March 1st,	120.00
Net production	320.00

Oil on hand in tank No. 10454, both Sec. 26, well No. 1, and Sec. 30, well No. 1, 439.49 bbls.

Yours truly,

L. J. King
Supt. Midway Div.

CLG/W.
cc-WSP
FBH
AFLB

[2560]

ASSOCIATED OIL COMPANY
COMPANY BUSINESS

(Rubber Stamp: T.F.J
May 4 1912)

In your reply please refer to
File No. 37-3-1

Fellows, Calif. May 3rd, 1912

Mr. P. G. Williams, Auditor,
San Francisco, Calif.

Dear Sir:

The following is report of production of A. P. Co. Elk Hills, Sec. 30, Well No. 1, for the month of April 1912:

Production

A. O. Co., Elk Hills, Sec. 30, Well No. 1

Oil on hand May 1st, 1912.	
Fuel Burned,	93.00
Oil on hand in Sump Hole	250.00) unable to
Delivered to A. O. Gathering Syst.	37.45) check
	380.45
Oil on hand April 1st, 1912, in sump,	250.00
Net Production	130.45

Yours truly,

L. J. King
Supt. Midway Div.

CLG/W
cc-WSP
FBH
AFLB

[2561]

ASSOCIATED OIL COMPANY
COMPANY BUSINESS

(Rubber Stamp: T.F.J.
JUN 4 1912)

In your reply please refer to
File No. 37-3-1

Fellows, Calif., June 3rd, 1912.

Mr. P. G. Williams, Auditor,
San Francisco, Calif.

Dear Sir:

The following is report of Elk Hills Division, Sec. 30 Well No. 1, production for the month of May, 1912:

Elk Hills, Sec. 30, Well No. 1, Production.	*bbls.*
Oil on hand June 1st, 1912 (in sump)	150.00

Fuel Burned Sec. 30, Well No. 1, (in ink: Cannot check)	54.00
	204.00
Oil on hand May 1st, 1912,	None
Net production	204.00

Yours truly,

L. J. King,
Supt. Midway Div.

CLG/W.
cc-WSP
FBH
AFLB

[2562]

ASSOCIATED OIL COMPANY
COMPANY BUSINESS

In your reply please refer to
File No. 37-3-1

Fellows, Calif. July 2nd, 1912.

Mr. P. G. Williams, Auditor,
San Francisco, Calif. (Rubber stamp: T.F.J.
Dear Sir: JUL 3 1912)

The following is report of Elk Hills Sec. No. 30, Well No. 1 Production, for the month of June, 1912:

JUNE 1912

Elk Hills Sec. 30, Well No. 1, Production.

Oil on hand July 1st, 1912 (In sump)	80.00
Fuel Burned, (Del. from Sec. 30, Well No. 1)	60.00 'Oper
Delivered to Lake Station A	83.00
	223.00

Oil on hand June 1st, 1912,	150.00
Net Production	73.00

Yours truly,

CLG/W. L. J. King,
cc-WSP Supt. Midway Div.
FBH
AFLB

[2563]

ASSOCIATED OIL COMPANY
COMPANY BUSINESS

In your reply please refer to
File No. 37-3-1

Fellows, Calif. August 2nd, 1912.

Mr. P. G. Williams, Auditor,
San Francisco, Calif. (Rubber Stamp: T.F.J.
Dear Sir: AUG 5 1912)

The following is report of A. O. Co. Elk Hills Sec. 30, Well No. 1, Production for the month of July, 1912:

JULY

A. O. Co. Elk Hills Sec. 30, Well No. 1	*Production*
Oil on hand August 1st, 1912,	225.00
Fuel Burned,	50.00
Delivered to A. O. Gathering System,	65.00
	340.00
Oil on hand July 1st, 1912,	80.00
Net Production	260.00

Yours truly,

CLG/W L. J. King
cc-WSP Supt. Midway Div.
FBH
AFLB

[2564]

"ASSOCIATED OIL COMPANY
COMPANY BUSINESS

In your reply please refer to
File No. 37-3-1
Fellows, Calif. Aug 27th, 1912
T.F.J.

(Rubber stamp: AUG 28 1912)

Mr. P. G. Williams, Auditor,
San Francisco, Calif.

Dear Sir:

The following is report of A. O. Co., Elk Hills, Sec. 30, Well No. 1, production from Aug. 1st, 1912, to Aug. 5th, 1912:

A. O. Co., Sec. 30, Well No. 1, Elk Hills Production

Oil on hand August 5th, 1912,	20.00	
Fuel Burned,	25.00	Drill
Delivered into Line, Gathering Syst.	210.00	
	255.00	
Oil on hand August 1st, 1912	225.00	
Net Production	30.00	

Yours truly,

CLG/W. L. J. King
cc-WSP Supt. Midway Div.

FBH
AFLB [2565]

(Defendants' Exhibit No. 169 O LL.)

"ASSOCIATED OIL COMPANY

CARBON COPY (In pencil: 9,100 E.H.)
DUPLICATE

(RUBBER STAMP: RECEIVED
OCT 901911)
ASST. GEN. MGR.

37-3-1

Fellows, Oct. 7th, 1911.

Mr. P. G. Williams, Auditor,
San Francisco, Calif.

Dear Sir:

The following is production report of Elk Hills Sec. 26, Well No. 1.

Oil on hand Sept. 1st,	None
Fuel Burned	680 Bbls.
Oil on hand Oct. 1st,	None
Net Production	680

All of this oil was used for fuel.

Yours truly,
L. J. King, Supt.

cc-W.S.P.
F.B.H.
A.F.L.B. [2566]

ASSOCIATED OIL COMPANY

CARBON COPY (Rubber stamp: RECEIVED
DUPLICATE NOV 4 1911
ASST. GEN. MGR.)
(In pencil: 9,100 Elk Hills)

Fellows, Calif. Nov. 3rd, 1911.

Mr. P. G. Williams, Auditor,
San Francisco, Calif.

Dear Sir:

Below I give you *Elk Hills Sec. 26 Well* No. 1 Production Report for the month of October, 1911.

Elk Hills, Sec. 26, Well No. 1

Oil on hand Nov. 1st, 1911	155.00
Fuel Burned	575.00
	730.00
Oil on hand Oct. 1st, 1911	.....
Net Production	730.00

This well produced 730 net bbls. of oil during October, of this amount 575 bbls., was used for fuel, balance of 155 bbls. being pumped into the line. On the morning of the first I finished out the oil line with water, the oil being received in a tank at Pioneer Midway. The amount reaching there being 425 bbls. 155 bbls. of this amount belonging to the Elk Hills well, balance of 270 bbls. belonging to the Pioneer Midway Oil Co., Cons. they having previously pumped it into the line finishing fuel.

Yours truly,

cc-WSP-FBH-AFLB- L. J. King
[2567] Supt.

ASSOCIATED OIL COMPANY
(In pencil: 9,100 E.H.)
(Rubber Stamp: RECEIVED DEC 12 1911

ASST. GEN. MGR.)

CARBON COPY
DUPLICATE

Fellows, Calif. Dec. 9th, 1911.

Mr. P. G. Williams, Auditor,
San Francisco, Calif.

Dear Sir:

The following is production of the Elk Hills Sec. 26, Well No. 1:

Oil on hand Dec. 1st, 1911	60.00
Oil Delivered to A. O. Gathering Syst.	155.00
Oil running into line running from Elk Hills to Pioneer Midway	267.00
	482.00
Oil on hand Nov. 1st, 1911	155.00
Total Production	327.00

Referring to the amount of 267 bbls. This is in the line which runs from Sec. 26 to the Pioneer Midway. In October I flushed oil out of the line with water. I then bled the line, and put 267 bbls. of oil in to the line, which is not sufficient to fill it.

The 60 bbls. are in the small tank at Elk Hills.

Yours truly,

L. J. KING
Supt. Midway Div.

CLG/W
CC-WSP
FBH
AFLB
LJK

[2568]

(In pencil: 9,100)

(Rubber stamp: RECEIVED JAN 5 1912
ASST GEN MGR.) 37-3-1

Fellows, Calif. Jan. 3rd, 1912.

Mr. P. G. Williams, Auditor,
San Francisco, Calif.

Dear Sir:

Below I give you monthly report of production, Elk Hills Division, for the month of December, 1911:

Elk Hills Division Production

Oil on hand Jan. 1st, 1912	130.00
Fuel Burned at Sec. 30 & 24, and Lake Station A.	263.00
	393.00
Oil on Hand Dec. 1st, 1911,	60.00
Net Production	333.00

Yours truly,

CLG/W. L. J. King
cc-AFLB Superintendent
WSP
FBH

[2569]

ASSOCIATED OIL COMPANY
COMPANY BUSINESS

(Rubber stamp: T.F.J. Feb 5 1912) In your reply please refer to File No. 37-3-1

Fellows, Calif. Feb. 3rd, 1912.

Mr. P. G. Williams, Auditor, (In pencil: Bunker)
San Francisco, Calif.

Dear Sir:

The following is report of the Elk Hills Division production, for the month of January, 1912:

Elk Hills Sec. 26, Well No. 1

Oil on hand Feb. 1st, 1912,	185.02
Fuel Burned E.H. Sec. 26, W. No. 1	37.17
" " " " 24, W. No. 1	51.30 (In ink Drill
" " " " Lake Station "A"	112.60
	386.09
Oil on hand Jan. 1st, 1912	130.00
Net Production	256.09

Yours truly,

L. J. King
Supt. Midway Division.

CLG/W
cc-WSP
FBH
AFLB

[2570]

ASSOCIATED OIL COMPANY
COMPANY BUSINESS

In your reply please refer to
File No. 37-3-1

Fellows, Calif., March 2nd, 1912.

Mr. P. G. Williams, Auditor,
San Francisco, Calif.

Dear Sir:

The following is report of Elk Hills Sec. 26, well No. 1 production for the month of February 1912:

Elk Hills Sec. 26, Well No. 1

Oil on hand March 1st,	000.00
Fuel Burned,	20.00
Fuel Del. to Lake Sta. A by wagon	30.00
" " " " " " Pipe Line	50.00
Pumped to tank 10454	315.00
	415.00
Oil on hand Feb. 1st, 1912,	185.02
	289.98

Oil on hand in tank No. 10454, both Sec. 26, and Sec. 30, 496.70 net barrels.

Yours truly,

CLG/W L. J. King W.
cc-WSP Supt. Midway Div.
FBH
AFLB

[2571]

ASSOCIATED OIL COMPANY
COMPANY BUSINESS

In your reply please refer to
(Rubber stamp: File No. 37-3-1
T.F.J. APR 8 1912)

Fellows, Calif. April 5th, 1912.

Mr. F. G. Williams, Auditor,
San Francisco, Calif. (In pencil: Bunker)

Dear Sir:

The following is report of Elk Hills Sec 26, Well No. 1, production for the month of March, 1912:

Elk Hills Sec. 26, Well No. 1

Oil on hand April 1st, 1912	75.73
Fuel Burned,	19.92 (In ink Oper)
Fuel Delivered to Lake Station "A"	115.08
	210.73
Oil on hand March 1st, 1912,	None
Net production	210.73

Oil on hand tank 10454, both Sec. 26, well No. 1, and Sec. 30, well No. 1, 439.49 bbls.

Yours truly,

CLG/W. L. J. King,
cc-WSP Supt. Midway Div.
FBH
AFLB

[2572]

ASSOCIATED OIL COMPANY
COMPANY BUSINESS

(Rubber stamp: T.F.J. May 4 1912) In your reply please refer to File No. 37-3-1

Fellows, Calif. May 3rd, 1912.

Mr. P. G. Williams, Auditor,
San Francisco, Calif. (In pencil: Bunker)

Dear Sir:

The following is report of production A. O. Co. Elk Hills, Sec. 26, Well No. 1, for the month of April, 1912:

Elk Hills, Sec. 25, Well No. 1, Production.

Oil on hand May 1st, 1912,	50.26
Fuel Burned,	10.00
Fuel Delivered to Lake Sta. "A"	68.00
Fuel Delivered to Sec. 24,	172.00
	300.00
Oil on hand April 1st, 1912,	75.73
Net Production	224.53

Yours truly,

L. J. King

Supt. Midway Div.

CLG/W
cc-WSP
FBH
AFLB

[2573]

ASSOCIATED OIL COMPANY
COMPANY BUSINESS

(Rubber stamp: T.F.J. JUN 4 1912)

In your reply please refer to File No. 37-3-1

Fellows, Calif., June 3rd, 1912.

Mr. P. G. Williams Auditor
San Francisco, Calif.

Dear Sir:

The following is report of Elk Hills Division, Sec. 26, Well No. 1, Production for the month of May, 1912:

Elk Hills Sec. 26, Well No. 1 Production.

Oil on hand June 1st, 1912	100.00
Fuel Burned Sec. 26, Well No. 1,	10.00

Delivered to Sec. 24, Well No. 1, fuel	60.00 (In ink: car)
Fuel Delivered to Lake Station "A"	100.00
	270.00
Oil on hand May 1st, 1912	50.26
Net Production	219.74

Yours truly,

CLG/W
cc-WSP
FBH
AFLB

L. J. KING,
Supt. Midway Div.

[2574]

ASSOCIATED OIL COMPANY
COMPANY BUSINESS

In your reply please refer to
File No. - - 37-3-1

Fellows, Calif. July 2nd, 1912.

Mr. P. G. Williams, Auditor,
San Francisco, Calif. (Rubber stamp: T.F.J. JUL 3 1912)

Dear Sir:

The following is report of Elk Hills, Sec. 26, well No. 1, production, for the month of June, 1912:

JUNE 1912

Elk Hills Sec. 26, *Well No.* 1, *production*

Oil on hand July 1st, 1912,	225.00

Fuel Burned, (Del. from Dec. 26, Well No. 1)	10.00	(In ink Oper)
Delivered to Sec. 24, Well No. 3, Fuel,	65.00	
	300.00	
Oil on hand June 1st, 1912,	100.00	
Net Production,	200.00	

Yours truly,

L. J. King
Supt. Midway Div.

CLG/W.
cc-WSP
FBH
AFLB

[2575]

ASSOCIATED OIL COMPANY
COMPANY BUSINESS

In your reply please refer to
File No. 37-3-1

Fellows, Calif., August 2nd, 1912.

Mr. P. G. Williams, Auditor,
San Francisco, Calif.

(Rubber stamp: T.F.J.
AUG 5 1912)

Dear Sir:

The following is report of A. O. Co., Elk Hills, Sec. 26, Well No. 1, Production for the month of July 1912:

JULY

A. O. Co., Elk Hills, Sec. 26, Well No. 1, Production

Oil on hand August 1st, 1912,	375.00
Fuel Burned, at Sec. 26, Well No. 1,	85.00
Fuel Furnished Lakd Sta. "A"	70.00
Delivered to A. O. Co., Gathering System	55.08
	585.08
Oil on hand July 1st, 1912	225.00
Net Production,	360.08

Yours truly,

CLG/W. L. J. King

cc-WSP Supt. Midway Div.

FBH

AFLB

[2576]

"ASSOCIATED OIL COMPANY
COMPANY BUSINESS

In your reply please refer to

(In rubber stamp: File No. 37-3-1

T.F.J. AUG. 28 1912.) Fellows, Calif. Aug. 27th, 1912.

Mr. P. G. Williams, Auditor,
San Francisco, Calif.

Dear Sir:

The following is report of A. O. Co., Elk Hills Sec. 26, Well No. 1, production from Aug. 1st, 1912, to Aug. 21st, 1912:

A. O. Co. Elk Hills, Sec. 26, Well No. 1, Production

Oil on hand August 21st, 1912,	25.00	
Fuel Burned at Sec. 26, Well No. 1	208.00	(In ink)
Fuel Delivered to Lake Sta. "A"	70.00	Drilling
Delivered to A. O. Gathering System	374.45	
	677.45	
Oil on hand August 1st, 1912,	375.00	
	302.45	

Yours truly,

L. J. King
Supt. Midway Div.

CLG/W
cc-WSP
FBH
AFLB

[2577]

(Defendants' Exhibit No. 170 LL.)

ASSOCIATED OIL COMPANY
COMPANY BUSINESS

(Rubber stamp: T.J.F. JUN 4 1912)

In your reply please refer to File No. 37-3-1

Fellows, Calif. June 3rd, 1912.

Mr. P. G. Williams, Auditor,
San Francisco, Calif.

Dear Sir:

The following is report of Elk Hills Division, Sec. 24, Well No. 3, Production for the month of May, 1912:

Elk Hills Sec. 24, Well No. 3, Production.	Bbls.
Oil on hand June 1st, 1912,	185.00
Fuel Burned Sec. 24, Well No. No. 3*	90.00' cannot check
	240.00
Oil on hand May 1st, 1912,	None
Net Production,	240.00

Yours truly,

L. J. King
Supt. Midway Div.

CLG/W
cc-WSP
FBH
AFLB

*See wire C. L. Giborey 6/5/12 E.C.W.

[2578]

"ASSOCIATED OIL COMPANY
COMPANY BUSINESS

In your reply please refer to
File No. 37-3-1
Fellows, Calif. July 2nd, 1912.

Mr. P. G. Williams, Auditor,
San Francisco, Calif. (Rubber stamp: T.F.J.
Dear Sir: JUL 3, 1912)

The following is report of Elk Hills, Sec. 24, Well No. 3, production for the month of June 1912.

JUNE 1912

Elk Hills, Sec. 24, *Well No.* 3 *Production.*

Oil on hand July 1st, 1912, 3000.000

Fuel Burned (Del. from Sec. 24, Well No. 3	115.00	'Drilling
	3115.00	
Oil on hand June 1st, 1912,	150.00	
	2965.00	

Yours truly,

L. J. King
Supt. Midway Div.

CLG/W
cc-WSP
FBH
AFLB

[2579]

ASSOCIATED OIL COMPANY
COMPANY BUSINESS

In your reply please refer to
File No. 37-3-1

Fellows, Calif. August 2nd, 1912.

Mr. P. G. Williams, Auditor,

(Rubber Stamp: T. F. J.
AUG. 5 1912)

Dear Sir:

The following is report of A.O.Co. Elk Hills, Sec. 24, Well No. 3, Production for the month of July, 1912:

JULY

A.O.Co. Elk Hills, Sec. 24, Well No. 3, Production

	Bbls.
Oil on hand August 1st, 1912	3100.00

(in ink: Drilling)

Fuel Burned,	147.00
	3247.00
Oil on hand July 1st, 1912	3000.00
Net Production	247.00

Yours truly,

CLG/W
cc-WSP
FBH
AFLB

L. J. King
Supt. Midway Div.

[2580]

Mr. W. F. Herrin was made President of the Associated Oil Company either in 1909 or 1910. The roster of the officers in the Associated Oil Company is in my custody. I have a manual of the officers of each company. I am the auditor of other companies as well as Secretary of all proprietary and subsidiary companies—fourteen in all, I believe. The other companies that I am auditor of are the Associated Pipe Line Company, Associated Supply Company, Associated Water Company, Bakersfield Iron Works, Shreeves Oil Company, Sterling Oil & Development Company, Pioneer Midway Oil Company, Consolidated West Coast Oil Company, Amalgamated Oil Company, Salt Lake Oil Company of California, Arcturus Oil Company and the Recruit Oil Company. When I spoke of the proprietary Companies, I meant where the Associated owned all the stock and when I spoke of the subsidiaries it was where they did not

necessarily control, but owned part of the stock. The Associated Oil Company owns a control of the capital stock in all the companies I have mentioned except the Associated Pipe Line, stock in that company being owned half by the Kern Trading & Oil Company and the other by the Associated. I have official relations with the Southern Pacific Company, that [2581] is, I do business with them in connection with the Auditing department. That is, the Southern Pacific Company prescribe the method of accounting and that necessarily follows down through all the other companies. This business is done through the Auditor of the Southern Pacific, Mr. T. O. Edwards. Mr. Segar was the Auditor of the Southern Pacific at the time I first went there and Mr. Edwards has pursued the same custom with respect to the method of prescribing the method of auditing for the Southern Pacific and and its subsidiaries, that is, subsequent to the time the Southern Pacific obtained the majority stock ownership of the Associated Oil Company. I don't remember the exact date but I think it was in 1911. It was at that time that this custom of prescribing the method of auditing began. I am Secretary for the Assocaited Oil Company and of all the other subsidiary companies of which I am Auditor. (At this point Mr. Lewers read in evidence Defendants' Exhibit 171 and which is in words and figures, as follows:

'THE NEW YORK TIMES
New York, Wednesday, May 29, 1912.

SAYS RAILROAD STOLE OIL LAND FORTUNE

"Criminal Conspiracy" Among Southern Pacific Officials is Charged by Wickersham.

$15,000,000 WAS THE STAKE

Developments in Suit, Begun in 1910, Are Declared "Sensational"—

Nation May Regain Land. **[2582]**

WASHINGTON, May 28.—In a public statement today Attorney General Wickersham declared that the Government's suit against the Southern Pacific Companies for the recovery of valuable oil lands in Southern California has brought "sensational and startling disclosures."

Testimony by witnesses subpoened by the Government, he says, "presents a remarkable picture of criminal conspiracy among high officials of the Southern Pacific Company to acquire from the United States under an agricultural grant oil lands valued at $15,000.00."

The statement was issued after a conference between the Attorney General and Willis N. Mills, special assistant in charge of the case, concerning recent developments in the suit. The proceedings were begun by direction of Mr. Wickersham in December, 1910, to set aside patents and revest in the Government title to 6,000 acres of valuable oil-bearing lands in the Elk Hills country of Kern County, Cal. The

lands are within the indemnity limits of the grant of July 27, 1866, to the Southern Pacific Railroad Company, in aid of the construction of the road. The original granting act, the Attorney General's statement says, excluded all mineral lands, the intention of Congress being to grant only agricultural lands, reserving mineral lands to the United States for all time.

The Government lawyers are cofident, the statement avers, that the disclosures made by the testimony of Charles W. Eberlein "will result in the restoration to the public domain of a vast tract of the most valuable oil lands in the State of California." **[2583]**

As Acting Land Agent of the Southern Pacific Railroad Company, the statement alleges, Mr. Eberlein saved from the fire following the San Francisco earthquake all the secret correspondence and documents relating to the conspiracy to defraud the Government out of these lands.

Upon being put on the stand, the statement continues, Mr. Eberlein produced correspondence between himself and the late W. D. Cornish, Vice-President of the Southern Pacific, and C. H. Markham, General Manager of the road, "establishing previous knowledge on the part of the railroad company officials of the mineral character of the land selected, and indicating an intention to keep the fact from the Government officials until after patents should be secured"). **[2584]**

ASSOCIATED OIL COMPANY
COMPANY BUSINESS

(Rubber stamp: T.F.J. AUG 28 1912) In your reply please refer to File No. 37-3-1

(In pencil 2500
500)

Fellows, Calif., Aug. 27th, 1912.

Mr. P. G. Williams, Auditor,
San Francisco, California.

Dear Sir:

The following is report of A. O. Co. Elk Hills, Sec. 24, Well No. 3, production, from August 1st, 1912, to August 21st, 1912:

Production, A. O. Co., Elk Hills, Sec. 24, Well No. 3

Oil on hand August 21st, 1912	3085
Fuel Burned,	165.00 Drill
	3250.00
Oil on hand August 1st, 1912,	3100.00
Net Production	150.00

Yours truly,

L. J. King
Supt. Midway Div.

CLG/W
cc-WSP
FBH
AFLB

[2585]

W. E. WHITE, called on behalf of the defendants, being first duly cautioned and solemnly sworn to testify the truth, the whole truth and nothing but the truth, testified as follows:

DIRECT EXAMINATION

By Mr. Lewers:

Q. Your name is W. E. White, is it not?

A. Yes, sir.

Q. And by what company are you employed at the present time?

A. The Associated Oil Company.

Q. How long have you been employed with the Associated Oil Company?

A. By the Associated Oil and subsidiary companies, for the last ten years, practically.

Q. What position do you now hold?

A. Chief clerk to the chief engineer.

Q. And who is the chief engineer?

A. Arthur F. L. Bell.

Q. Does he hold any other title than chief engineer, or has he held?

A. He has until June 1st last.

Q. What title did he hold prior to the 1st of June of this year?

A. Field manager.

Q. And as such field manager, over what did he have jurisdiction?

A. He had entire charge of the field operating and development of all Associated Oil Company properties.

Q. And where were the records of his office kept? That is, in whose charge were they? **[2586]**

A. They were kept in his office, under his and my own charge.

Q. And what, in the ordinary course of carrying on the business of drilling and operating wells—state in a general way what records were kept of drilling operations.

A. Well, complete records of the logs, locations, maps, and so on, of production, and all records incident to the development of the field.

Q. How were reports, if any, made to your office from the field?

A. Some were written reports and others were telegraphed.

Q. And how frequently were those telegraphed in?

A. Well, we had daily reports of operations, drilling, and so on, and monthly reports of production.

Q. These daily reports that you received by wire covered what territories?

A. Covered all the different fields that we were interested in, with the exception of the Kern River field and Santa Barbara county.

Q. Were these telegraphic reports confirmed in any way?

A. They were confirmed by written reports.

Q. How often were those sent in?

A. They were supposed to be sent in daily, but it frequently happened that they would be two or three days late.

Q. After you received these reports, what was done with them in your office?

A. They were filed and put away.

Q. Well, was any other record made in your office from those reports?

A. As far as the drilling of wells was concerned we kept—wrote up logs, and also made graphic logs of those drillings.

Q. By whom were these reports made by wire to your office? **[2587]**

A. By the superintendent of the division involved.

Q. Did you have any reports in your office of drilling operations in the Elk Hills?

A. Yes; we had daily reports.

Q. By whom were those reports made?

A. By Superintendent King, of the Midway division.

Q. In his absence from the field, in case that should occur, did you receive those reports?

A. Yes.

Q. By whom would they be made then?

A. By his chief clerk.

Q. Was any distinction made, or was there any difference in the manner of sending in reports from the Elk Hills operations from that prevailing in other places where you were drilling wells in that vicinity?

A. No difference.

Q. Do you now have in yor office the telegraphic and other reports that were sent in on the drilling of these wells in the Elk Hills?

A. Yes.

Q. Have you prepared from the records that were sent in in this way of operations in the Elk Hills, any graphic log or logs of any of the wells in those hills?

A. Yes; we have prepared logs of all those wells, that is, the three deep wells involved.

Q. You are referring to the wells in Sections 24 and 26 in 30-23 and in Section 30 of 30-24?

A. Yes.

Q. Under whose directions were those graphic logs prepared?

A. They were prepared at my instance.

Q. You say they were "prepared at your instance". What do you mean by that? **[2588]**

A. As matter of office record I kept them up or had them kept up for the benefit of every one concerned.

Q. Now, I show you a blue-print and ask you what that is

A. That is a resume of the operations of well 1 on Section 30, Township 30-24.

Q. Prepared from what?

A. Prepared from the daily drilling reports and reports of production.

Q. And what period does that cover?

A. That covers the period from the beginning of drilling until they shut down; in other words, from July 30, 1910, to August 23rd, 1912.

Q. And does that graphic log faithfully or truthfully represent the reports and records of daily drilling operations and productions received in your office upon these wells?

A. It does.

Q. Upon that well?

A. Yes.

Q. And what does the last column, that is, the column—or the figures, rather—at the bottom of each of the columns represent?

A. That is to show the actual monthly net production.

Mr. Lewers—We offer this graphic log in evidence. And I will state that I have all of the telegraphic and written reports and daily well reports here upon which that is based, and I shall offer similar graphic logs of the other two wells.

Mr. Mills—You intend to introduce the telegraphic reports, don't you?

Mr. Lewers—No, I don't; because, although I would like to dot it, it would involve incumbering the record with a mass of practically non-usable stuff—there is so much of it. It is mingled with all the other reports of all the wells in that [2589] territory.

Mr. Mills—I think we should be able to check the reports.

Mr. Lewers—I have them here, and you can make such use of them in that respect as you desire, but in the interest of shortening the record I prefer not to introduce them because they would simply uselessly incumber and greatly add to the expense of the trial without being of any assistance to the court.

Mr. Mills—We of course cannot assure ourselves that this is a correct resume of those logs without examining them.

Mr. Lewers—That is very true. I have them here.

Mr. Mills—I should want to do that before cross-examining this witness.

Q. You say that this was prepared at your instance?

A. I prepared that myself.

Q. You prepared it from the logs?

A. From the logs, daily reports.

Q. That is, you made the paper from which this is a blue-print?

A. Yes.

Q. And these are your figures on here, are they?

A. No; I didn't do the drawing myself, but I did a similar one from which that was made up; in other words, I collected the data and put it in that shape.

Q. Did you personally make up the sheet from which this is a blue-print, from the logs, without any one else's work?

A. Yes sir; I collected all the data, but the actual drawing of the lines I did not do myself.

Q. Well, the data, as I understand it, was collected in your office, to start with?

A. Yes sir.

Q. By that you mean you handed it to some one else to make the figures? **[2590]**

A. To make an exact copy; yes sir.

Q. Did you pesronally take each log and report on this particular well and make up the sum total without any one else doing any work on it?

A. Yes.

Mr. Mills—May I see the data from which this is made, now? (Papers handed to counsel.)

Q. Now, is this all relating to this one well?

A. No; that covers all the wells in the district.

Mr. Mills—Will you get out the logs from which you made this document?

Mr. Lewers—You will see each telegram covers a number of wells.

Q. By Mr. Mills—Well, just point out that from which you made this statement. (Witness indicates to counsel.) Does this statement include matters from each one of the papers in these eight packages?

A. No; it was taken practically entirely from this one, and this covers the dates. This was intended to be a resume of these daily reports.

Mr. Mills—I have no formal objection to the introduction of this summary constituting the offer of Defendants' Exhibit 172, purporting to show the record of the operations on well No. 1 in Section 30, 30-24, and what I understand to be some offers you will make on wells 24 and 26 of 30-23, in view of the fact that the defendants' counsel have produced the alleged daily reports and alleged daily logs from which the summary is prepared, with the understanding, however, that the originals of the reports and the daily logs be left here for checking and examination by government's counsel.

Mr. Lewers—As far as the custody of the original data from which these graphic logs were prepared is concerned, I can say **[2591]** that I have no author-

ity to take those for any considerable length of time out of the possession of the Associated Oil Company, nor has Mr. White, as I am informed, any authority to do that, but that this arrangement can be carried out, and, as I understand it, is the usual arrangement under situations of this kind: All of these telegrams, daily reports and other data on which these graphic logs are based will be retained in the office and the custody of the Associated Oil Company and open to the inspection, as carefully as may be desired, of the counsel for the government or any representative whom he may designate, at any convenient hour that may be agreed upon, and that as full an examination and checking as counsel desires may be made of those records in the office of the Associated Oil Company in San Francisco, but I have no authority—and that is my reason for making the suggestion—to dispose of them in any other way, as they are not my records.

Mr. Mills—I understand; and I don't want to discommode you. But, in view of your statement, I will have to take time now to ascertain whether I have any objection to make to this offer.

Mr. Lewers—Well, proceed with the examination. Our time is limited. You will have ample opportunity to make your examination at a later time. I want to complete the examination of this witness, so far as my direct examination is concerned, now.

Mr. Mills—Well, I shall object to your proceeding with the examination until I have time to inspect these documents and determine whether I want to object to this offer.

Mr. Lewers—I will agree that you may heerafter make your objection, without any question being raised as to the time your objection is made.

Mr. Mills—Suppose I offer these. I do offer these papers **[2592]** now, with the understanding that the Associated Oil Company may substitute copies, if they desire. I now make the offer of all these papers which have been handed to me by defendants' counsel, including a bunch of telegrams dated from June 29th, to November 30th, 1912; December 31st, 1911, to March 2, 1911; telegrams dated from October 9, 1911, to March 11, 1912; a bundle of letters running from April 27, 1910, to November 3, 1910; daily reports running from January 1st, 1912, to June 3, 1912; a bundle of telegrams from March 12th, 1912, to June 28th, 1912; daily log reports running from July 29, 1910, to May 5th, 1911; and a bunch of daily reports running from May 6th, 1911, to April 3, 1912; and I ask them to be identified by the Examiner.

Mr. Lewers—Mr. Examiner, these are all my documents and in my custody for the time being and belonging to the Associated Oil Company. Counsel for the government has no right to take them, and I have offered, and repeat the offer, that they shall be open to the inspection of counsel for the government as extensively as he desires. If he desires to have copies of these papers and will pay for them, we will arrange to have complete copies made, but I have no authority to consent to their being taken and put in evidence, nor has Mr. White any authority, and I feel that it is an attempt, in the absence of the court, to take advan-

tage of a situation, without any necessity for it, as no opportunity to examine them has been denied or will be denied, and for that reason I decline to surrender their possession to the Examiner.

Mr. Mills—I protest against the conduct of counsel for the defendants in seizing papers already introduced in evidence before the Examiner, and cite it as prejudicial misconduct.

Mr. Lewers—Well, will you pay for the copies?

Mr. Mills—I don't ask for copies, I want to see the originals. They are in the custody of the court now. I don't **[2593]** see how you can take them out.

Mr. Lewers—They are not in the custody of the court. No order of court has been made. If there is an order of court I will comply with it, of course. Furthermore, I brought these into court myself and I am personally responsible for them, and as along as no effort is made to prevent a full and complete examination I don't think that there is any occasion for counsel endeavoring to introduce what is obviously a mass of material nine-tenths of which refers to wells that are not involved in this controversy.

Mr. Mills—I don't care to introduce any portion of the documents which do not pertain to the wells in this particular area. The papers have been introduced and I see no power on your part to take them out of the custody of the court.

Mr. Lewers—Mr. Examiner, will you mark this as Graphic Log with its appropriate exhibit number?

The graphic log last referred to and offered in evi-

dence is marked "Defendants' Exhibit 172—L. L."

Mr. Mills—I call upon the Examiner now to know whether he intends to permit counsel for defendants to remove from his custody these papers and documents.

Mr. Lewers—They have not been in the Examiner's custody yet. They have been in my custody. If you desire to have any order of court made, you can get that order; but in the meantime I have not withdrawn my suggestion.

Mr. Mills—Will you leave these papers here in the custody of the Examiner until I can get an order from the court?

Mr. Lewers—I have no authority to do that. I have authority to bring them here so that you may see what they are and to arrange for an examination of them as comlpete as you desire. [2594] My authority goes no further.

Mr. Mills—What is your ruling, Mr. Examiner? Are you going to permit these documents to be boldly and forcibly taken out of your possession?

The Examiner—As always, I, as Special Examiner, have very little effective authority in this matter. It seems to me, though, Mr. Lewers, that as you have brought these documents here and offered them for Mr. Mills' inspection, and as they are the basis of the document you have already introduced, you should afford Mr. Mills full opportunity to examine them, and I do not see any reason why you should be unwilling to leave them in my custody for that purpose.

Mr. Lewers—My authority is not the same as it would be in connection with documents belonging to myself; and, inasmuch as I am putting in testimony and the government is not, at this time, and inasmuch as the time for cross-examining has not yet arrived and these matters, or the papers that have been referred to, containing a great many matters that are not at all relevant and would unduly encumber the record if copied into it, I merely repeat that I will make any arrangement that I have authority to make, and I have the authority to make the arrangement that these will be open to the fullest inspection at any time that counsel for the government desires. I can do no more and I will do no less.

Mr. Mills—Mr. Examiner, I have made the statement that I was perfectly willing to have these documents left in your custody until Monday night, so that I may have opportunity to examine them for the purpose of checking up the accuracy of this offer of defandants' counsel, and that they be turned over promptly to Mr. Lewers or to the representative of the Associated Oil Company, as I have no desire to discommode either counsel for the defendants or the Associated Oil Company; but I do resent **[2595]** this high-handed attempt on the part of counsel to take from the custody of the Examiner these papers, which have been introduced solely because of his refusal to permit us to examine them.

Mr. Lewers—Have I refused to permit you to examine them?

Mr. Mills—You refused us the opportunity of ex-

amining them in the presence of the Examiner, refused to leave them with him here. Do you desire us to go over to the Associated Oil Company's office to make the examination, at such time as is convenient to the Associated Oil Company? I think I have been perfectly fair. I didn't want to introduce these documents at all, because I thought it might discommode you, but in view of your statement that you refused to permit me to examnie them until Monday night in the custody of the Examiner in this case I introduced them solely to protect the government in the examination of this witness.

Mr. Lewers—Well, the Examiner will not be here until Monday night. It will involve the taking of these documents to Los Angeles.

Mr. Mills—The Examiner will be here until Monday night, if the government has to pay his fees. I don't think you are right in this matter, Mr. Lewers.

Mr. Lewers—You have seemed to interpret what I said in a way in which I didn't say it. Every opportunity will be given you to examine these as fully as you please. There will be no restriction placed on it. The only restriction will be that we don't expect you to examine them at any time except during office hours.

Mr. Mills—I don't expect to take the time to examine these reports months after the opportunity for making the objection has gone by. Now is the time to examine the reports. I think on reflection you will take a different attitude. **[2596]**

Mr. Lewers—I think on reflection you will withdraw your attempt to offer something in evidence that don't belong to you. That cannot be done, as you know.

Mr. Mills—Well, they are offered in evidence, and I think the court will sustain me in my attitude.

Mr. Lewers—If you desire to make the arrangement that they shall remain in the custody of the Examiner in San Francisco and the government will pay his fees during the period of your examination, I will endeavor to arrange with the Associated Oil Company, and I have not any doubt that when this is put up to them in that way they may be put in the possession of the Examiner with full opportunity for you to make such examination as you desire.

Mr. Mills—What do you mean by that? That I shall go to the Associated Oil Company?

Mr. Lewers—No; I said I will leave them in the possession of the Examiner.

Mr. Mills—The Examiner of the court.

Mr. Lewers—If you will pay his fees for holding them over here.

Mr. Mills—And you will leave them with him?

Mr. Lewers—I will leave them with him. I will endeavor to get permission to do so and I have no doubt I will be able to.

Mr. Mills—I want them left with him without your taking them out of court.

Mr. Lewers—He will be responsible for them.

Mr. Mills—I understand the Examiner will take

possession of them and you will talk with the Associated Oil Company and endeavor to get permission to accomplish that.

Mr. Lewers—Yes. And you will pay him for his services?

Mr. Mills—Yes. And you will not take them out of the possession of the Examiner? [2597]

Mr. Lewers—No.

Mr. Mills—Also, you will recall Mr. White for further cross examination if I so desire?

Mr. Lewers—At some later time that will be done. Mr. White is busy, but some convenient time will be found later for that. That was my original suggestion. There is no desire to restrain you from examining these matters as fully as you please.

Mr. Mills—The understanding is, then, Mr. Examiner, that these are to be left with you and the government is to pay your fees.

Mr. Lewers—Yes.

Q. Mr. White, I show you a similar chart or graphic log that purports to be of a well in Section 26, of Township 30-23, in the Elk Hills. That was prepared in the same manner as the one of the well in Section 30 of 30-24?

A. Yes; it was.

Q. Under your direction?

A. Yes sir.

Q. And by whom was the material compiled?

A. By myself.

Q. By Mr. Mills—That was compiled in the same

way, was it, as the other—with your own hand and without any assistance?

A. Yes.

Q. By Mr. Lewers—With the exception of the drawing?

A. Yes.

Q. You checked it, though, as your own?

A. Yes.

Mr. Mills—I have no objection to any of this excepting such objection as we may have after the examination of the log.

Mr. Lewers—I agree you may make any objection to the three charts, or anything concerned with them, at a later time, after [2598] you have examined the charts and are advised an objection is necessary. (Marked "Defendants' Exhibit 173—L.L.")

Q. I also show you a similar graphic log of the well No. 3 in Section 24 of Township 30-23, and ask you if that was prepared in the same way, in the same manner, from data in your possession.

A. It was.

Q. And checked by yourself, was it?

A. Yes sir. (Marked "Defendants' Exhibit 174—L.L.")

Q. Now, calling your attention to this last graphic log of the well on Section 24, from what did you obtain the foot-notes that appear upon that graphic log? Were those obtained, likewise, from the daily reports?

A. Yes. I am quite sure they appear on the daily report under this date.

Q. That is, I am referring particularly to the foot-note "A", where it says it "Flowed 350 (rate) which was run in to wash out hole." Foot-note "B"., "Flowed 350 (rate) which was run into wash out hole". Foot-note "C", "Filled hole with oil from sump." Then foot-note which is starred, "All production this month pumped back into hole to hold back gas pressure." What is shown there as the net production of the well for the last month—the month of June, is it not, 1912?

A. Month of August.

Q. August, 1912?

A. It shows 150 barrels net.

Q. Have you made an estimate of the amount of oil that could be flowed back into the well of the size that that was?

A. Well, at the time they were flowing oil into the hole there was also oil coming out, and it is pretty hard to estimate the quantity that would flow in there, because part of it may go back, under pressure, into the sands from which it ori-**[2599]** ginated, again.

Q. Have you made any estimate as to the capacity of the well itself?

A. I have figured up the capacity of a hole of that size. With that sized casing it would be about one hundred and seventy-five barrels. But still it would take considerably more oil than that going into the hole, on account of part of it going back into the formation. At any rate, the hole itself would hold one hundred and seventy-five barrels, approximately.

Q. Were these wells, as far as the records of your office are concerned and show and as far as your own personal knowledge goes, handled any differently from any other wells that were being drilled in the field?

A. In what way do you mean "handled differently"?

Q. As to the effort made to obtain production.

A. No; they were handled the same as any other wells.

Q. Mr. Mills—Has this witness been qualified yet to know any such matter? I object to it because the witness has not qualified, so far, by direct testimony, to answer such a question.

Q. By Mr. Lewers—Was there any effort made to hinder or conceal the possible production of any of these wells?

Mr. Mills—That is also objected to, unless it is limited to his own knowledge.

A. No; not from my knowledge.

Q. By Mr. Lewers—Was there any effort made to the contraray?

Mr. Mills—That also is objected to.

A. I don't quite understand you now.

Q. By Mr. Lewers—To endeavor to make them produce.

A. Every effort that I know that could be made was made.

Q. What efforts were made?

A. That is, reperforating, and testing and doing

every- [2600] thing that we know of to get them into some shape to produce. Some of the wells were tested several times, and reperforated, and so on.

Q. Do you know anything about the process of putting hot oil back into the well? Do you know anything about that?

A. Yes.

Q. Was that done with any of these wells?

A. Yes.

Q. What is the purpose of that?

A. In the well in 24—three—that was done to cut down the gas pressure.

Q. By Mr. Mills—Were you present at the time that was done?

A. No.

Mr. Mills—I object to that as hearsay, and move that the answers, so far as they related to what was strictly hearsay, be stricken out.

Q. By Mr. Lewers—Upon what do you base your answer that these efforts were made?

A. Well, on the records of our office, on the instructions that emanated from the field manager's office. We were in constant touch while the well was being drilled. Our instructions went from the field manager's office here.

Q. And were you familiar with those instructions?

A. Yes.

Q. And did that office receive reports back as to what had been done?

A. Yes; reports sometimes written and sometimes telephone conversations.

Q. Does Mr. Bell's office maintain connection with the operations in the field by means of telegraph or telephone?

A. Yes. **[2601]**

Q. What connection do you have?

A. We have both telephone and telegraph connection with Fellows, which is situated in the Midway field.

Q. Did you have prepared any other forms of logs from the data in your office?

A. We had graphic logs prepared, as we call them.

Q. What do you mean by a graphic log?

A. A diagramatic log drawn to scale.

Q. Do you mean a log drawn to scale and depth?

A. Yes, sir; casings, and so on.

Q. I show you what purports to be such a log of well No. 1 in 30, of 30-24, and ask you what you know about the preparation of that particular log.

A. It was prepared at my request by a draftsman employed in our office, and afterwards checked with the daily reports.

Q. Checked by whom?

A. Checked by myself and Mr. Jeffres.

Q. Do you mean Mr. E. J. Jeffres?

A. Yes.

Q. Who is now dead?

A. Yes.

Q. And what was the result of that checking, as to

whether or not this is an accurate representation of the results of the various reports received?

A. It agreed with the reports.

Q. And were similar logs, prepared in the same way, as to the other two wells, one in Section 24 and the other in Section 26 of 30-23?

A. Yes.

Q. And are these documents I hand you the logs which were prepared in that way?

A. Yes. Those are the two. **[2602]**

Mr. Lewers—I now offer these three graphic logs of the wells referred to, in evidence, and ask that they be marked with the appropriate numbers.

The logs last referred to and offered in evidence are marked, respectively, "Defendants' Exhibits 175, 176 and 177—L. L."

Mr. Mills—With the same understanding.

Mr. Lewers—Subject to the same understanding as the prior ones.

Mr. Mills—Subject to any objection after examining the logs.

Mr. Lewers—Yes.

Q. Do you receive any daily reports of drilling operations from the Elk Hills at the present time?

A. No; we are not drilling at the present time.

Q. Is there anything at all being done in the Elk Hills by the Associated Oil Company at the present time?

A. No.

Q. In the testimony this morning given by Mr.

Williams, in his cross-examination, he was asked with reference to what is known as pipeline No. 1. Do you know anything about the construction of that pipeline or where it runs?

A. Yes. That was a four inch line that ran from Pioneer, Midway, Section 30 of 31-23, to the Elk Hills.

Q. And to what section in the Elk Hills does it run?

A. Section 35, I believe it is, of 30-23.

Q. And where is pipeline No. 2?

A. Pipeline No. 2, as I remember it, connected with that line and ran to Buena Vista Lake station, where we had a pump station. **[2603]**

Q. And what was pipeline No. 2 used for?

A. For delivering fuel oil to the pump station at the Buena Vista Lake.

Q. And what was pipeline No. 1 constructed for?

A. No. 1 was for delivering fuel from Pioneer over to the Elk Hills.

Q. For whose use?

A. For our own and other companies who purchased from us.

Q. Why was that constructed?

A. For the purpose of delivering fuel oil.

Q. Is it not possible to bring fuel in in any other way?

A. We started in there hauling in wagons but it was too expensive that way. We had tank wagons. And we found it was cheaper to put in a pipeline than to haul in wagons.

Q. And was that the reason why this pipeline No. 1 was constructed?

A. Yes.

Q. I show you what purports to be a carbon copy of a letter dated July 13, 1910, addressed to Mr. O. Scribner, and purporting to be signed by Mr. Bell. Do you know where that came from and what that is?

A. That is a report or a recommendation to Mr. Scribner, assistant general manager, regarding the installation of the fuel line to the Elk Hills in place of the teams that had been used prior to that time.

Mr. Mills—I move that that answer be stricken, as not responsive to the question, an attempt to state the contents of a letter before it is offered in evidence.

Q. By Mr. Lewers—Where did this particular piece of paper come from? Out of what files?

A. It is out of one of the files of the field manager's office. **[2604]**

Q. From any file that is in your control?

A. Yes.

Q. Or in your custody?

A. Yes.

Q. And by whom was the original of that letter signed, if you know?

A. Signed by Arthur F. L. Bell.

Q. And was the original of that letter sent, that you know, to Mr. Scribner?

A. It was.

Mr. Lewers—We offer to read this in evidence and into the record.

Mr. Mills—All right.

Q. By Mr. Lewers—Was that letter written on or about the date it purports to be sent?

A. To the best of my recollection it was.

Q. By Mr. Mills—Where is the original of that letter now? Do you know?

A. It should be in Mr. Scribner's files.

Mr. Mills—I think I shall object, at the present time, to the introduction of this alleged copy of the original until the original is produced, and for the further reason that it is a self declaratory statement.

Mr. Lewers—I didn't produce the original because I didn't think any question would be raised upon that point.

"Associated Oil Company. Carbon copy duplicate. July 13, 1910. Mr. O. Scribner, Asst Genl Manager. Dear Sir: Referring to my letter to you of July 9th in the matter of installing a 4" oil line from the Elk Hills district to the Pioneer Midway lease, Sec. 30: At present, we are using five teams at a cost of $50 per day or $1500 per month; six months being estimated time of drilling a well in that field would mean a cost of $9,000 for [2605] teams. It will therefore be seen—"

Mr. Mills—I onject to your reading into the record any letter which is not left for examination by this court.

Mr. Lewers—All right. Then I will have a copy made of it for you.

Mr. Mills—I don't want a copy. I think the paper itself should be left in evidence.

Mr. Lewers—I mean I will have a copy made for our file and leave this, if that will suit. "It will therefore be seen that it will cost more to haul the oil then the amount we would lose by installing the pipe-line. If we strike oil we then have a line for pumping the oil to the storage on the Pioneer Midway lease. Yours truly, Arthur F. L. Bell, Field Manager. cc. to Mr. Porter AFLB/Z P. S. On account of pipe delivered from Coalinga to Fellows being second-hand, we can get a special rate, which will reduce the net total loss on pipe line if installed, to $6000.00. A. F. L. B."

(Marked "Defendants' Exhibit 178—L.L.")

Q. Was that suggestion acted upon and was that pipe-line built?

A. Yes.

Q. In pursuance to it?

A. It was; yes.

Q. And do you know whether any oil was actually pumped through that pipeline from the Pioneer Midway into the Elk Hills?

A. Yes.

Q. And how large a quantity, if you know?

A. I couldn't say. We sold considerable of what we did pump, to other parties, besides our own fuel.

Q. Do you know wether any was pumped out?

A. You mean back through the line?

Q. Yes.

A. I think there was some run back. [2606]

Q. Was there as much pumped out as there was pumped in?

Mr. Mills—If you know of your own personal knowledge.

A. I don't know the figures. My belief is a great deal more went in than went out.

Mr. Mills—We object to your statement of what your belief is, Mr. White. I move that that answer be stricken out.

Mr. Lewers—I ask that it stand.

Q. When did you first become connected with the oil business in any form?

A. In, I believe, August, 1903.

Q. And where?

A. In San Francisco.

Q. With what company were you then connected?

A. With the Recruit Oil Company, a branch of the Associated.

Q. And from that time until the present have you been engaged in any other line of work?

A. No.

Q. From 1903, when you first began your connection, what were your duties for the first few years?

A. They were varied. I had no particular calling but simply "utility man," you might call it; looked after government lands and the interests of the company in that field.

Q. And in what field did you operate?

A. Well, I was, at different times, at Santa Barbara, Coalinga, Midway, Sunset and McKittrick.

Q. While you were in the field looking after lands, as you say, what would you do, what were you trying to do?

A. Mostly looking after government land.

Q. What do you mean by that?

A. Looking after open government land and taking care of locations we already had.

Q. Well, for what purpose did you desire to obtain that land? **[2607]**

A. Simply to obtain it for its oil land value, or its future.

Q. Were you at that time what is commonly called "a scout" in the field?

A. I presume you might term it that.

Q. And in your work in the Sunset, Midway and McKittrick districts, just what territory did you cover from 1903 on?

A. I covered all of that territory, at various times.

Q. Up to what years? What year was it, rather, that you quit this work?

A. I left there in 1909, I think, spring of 1909, although I have been down in the field many times since.

Q. Then prior to the time you quit the field work you were employed by the Associated Oil Company, were you?

A. Yes sir. More particularly the Recruit Oil Company.

Q. When was it that you became employed directly by the Associated Oil Company?

A. In 1909, when I came to San Francisco for headquarters.

Q. How frequently were you in the Sunset, Midway and McKittrick districts in 1903, '04 and '05?

A. Well, I was in that vicinity all the time, or practically all of the time. There were periods, though, when I would be away. I went to Santa Barbara county, San Pedro, and came to the city.

Q. Were you engaged during all of that time in looking for oil land?

A. Well, I was supposed, if I saw any, to report it, but my principal business was looking after our interests in the Carissa Valley.

Q. And where is that situated?

A. It is on the opposite side of Midway Valley.

Q. Across the range? **[2608]**

A. Across the Temblor Range, in San Luis Obispo county mostly.

Q. Were any operations for oil being carried on there at that time?

A. Nothing more than locating and doing assessment work.

Q. What companies were in there?

A. During what period did you want to know?

Q. 1903, '04 and '05 or later.

A. The Recruit Company was the only one in there during 1903 and '04, although there were other individual interests. After that the Union Oil Company and the Vishnu Oil Company came there.

Q. Well, in addition to the Associated Oil Company, what large companies were in either the Midway or Sunset or McKittrick fields in 1904, '05 and '06?

A. In addition to the Associated Oil Company?

Q. Yes.

A. Well, there was quite a number of them: The Chanslor-Canfield Midway Oil Company, that is now the Santa Fe Oil Company. They were the largest in the Midway. They were mostly small companies in the Sunset and Maricopa district. And the McKittrick had a number of companies, usually smaller companies.

Q. Well, was the Chanslor Canfield Company the only large or strong company that was in there at that time?

A. Well, they were the largest of them all, and they were graduated down from that to the smaller companies.

Q. Do you know whether the Chanslor-Canfield Company was making any effort at that time to obtain additional territory in that vicinity?

A. Yes; they were always obtaining additional territory whenever they could get hold of some other open land.

Q. And did they have the means to obtain that territory? **[2609]**

Mr. Mills—That is objected to, unless the witness can qualify to testify as to their financial condition.

Mr. Lewers—You may answer.

A. Judging by appearances, they had.

Q. And were there any other companies in there that had the means of acquiring additional lands for development purposes besides what they were already operating?

A. You mean other companies outside of the Union, the Associated and the ones I have already mentioned?

Q. Well, outside of the Chanslor-Canfield is what I was after. Was the Union one of those companies you have referred to?

A. Yes sir; the Union was in there.

Q. And was it in position financially, so far as you know, to obtain additional property?

A. I presume it was, because it was obtaining additional property.

Q. And were other companies in there obtaining additional property?

A. Usually the property was obtained by locators and then turned over to these companies, so it is pretty hard to answer the question, although the Associated, Union and Vishnu Oil Companies were getting whatever land they could.

Q. How many of those companies, to your knowledye, maintained agents or scouts to look out for the additional oil territory?

A. Well, the Union and the Associated were the only ones I know of.

Q. Were you acquainted with the general opinion prevailing throughout the oil districts from the Midway and up through McKittrick and in that

vicinity concerning the extent of the oil territory, in 1903, '04 and '05? **[2610]**

A. Yes; I have heard a good many expressions of opinion through there.

Q. What was the general opinion as to the extent of the oil territory?

Mr. Mills—That is objected to as calling for mere neighborhood gossip among people some of whom possibly were incompetent to express an opinion.

A. The general opinion prevailed that the oil belt was along the edge of the foothills in the Midway field.

Q. Along the egde of what foothills?

A, On the edge of the Temblor Range, you might call it.

Q. What was the opinion at that time as to the oil belt extending out in the Elk Hills?

Mr. Mills—That is, a general opinion, you mean, Mr. Lewers?

Mr. Lewers—Yes.

A. I never heard any one speak of the Elk Hills as being oil land.

Q. When did you first hear the Elk Hills discussed as possible oil land?

Mr. Mills—It is understood that objection goes to all this testimony?

Mr. Lewers—Yes.

A. I presume along in 1907 or '08 was the first time I had heard of it being spoken of, any more than, possibly, in the general way that people speak of any place as being possible oil land; but I never

heard of its being spoken of as possible oil land until 1907 or somewhere along in there.

Q. When did the Associated Oil Company go in there?

A. They went in there in the early part of 1910.

Q. Was there anything to prevent their going in there prior to that time?

A. No; although they had no locations in there. Still, **[2611]** they could have bought other locations for a very small amount of money.

Q. When did you yourself first go into the Elk Hills?

A. I believe it was along in 1905 or the early part of 1906.

Q. Was there anything, so far as you know, to prevent the Chanslor-Canfield people going into the Elk Hills, if they desired to?

Mr. Mills—That is objected to as irrelevant, incompetent and immaterial to any issue in this case.

A. No.

Q. By Mr. Lewers—Did they go into the Elk Hills at that time?

Mr. Mills—Same objection.

A. Not to my knowledge.

Q. By Mr. Lewers—Well, if they had done so would you have been in a position to know it?

A. Yes, if they had gone in on any extensive scale.

Mr. Mills—You might as well ask if John Smith mightn't have gone in. What difference does that make to the issues in this case? There was lots of

territory Chanslor and Canfield didn't go into that proved to be valuable.

Q. Was there not, Mr. White?

A. Yes.

Q. By Mr. Lewers—Did you make any effort to keep posted as to the general operations going on through that district?

A. Yes; we kept in touch in a fairly close way.

Q. Well, was it any part of your duty to keep in touch with development and new discoveries?

A. Yes.

Q. Or with prospective territory?

A. Yes; it was. **[2612]**

Q. What was the occasion of your going over into the Elk Hills the first time?

A. The first time I went over there we were going hunting and went down in through there the first time I went over there.

Q. And how long was it before you went in there again?

A. Oh, I should say six months, or such a matter, later.

Q. And what was the occasion of the visit at that time?

A. Well, one of the Chanslor-Canfield men wanted me to go over and see an oil sand, exposed oil sand, that he had located over there.

Q. Did you see it?

A. I saw something but I didn't know whether it was oil sand or not.

Q. And do you now know where that was situated?

A. No; I don't know what section it was on.

Q. Was it situated anywhere near any of the present wells that have been sunk by the Associated, to your knowledge?

A. I think it is in that vicinity, but I don't remember now just where it was located. I went over, a couple of years or a year or so after that and tried to find it, but could not do it.

Q. Under whose direction were you working in 1903, '04, '05 and '06?

A. Under the direction of Arthur F. L. Bell.

Q. And what position did he then hold and with what company?

A. He was manager of the Recruit Oil Company, and the chief engineer for the Associated.

Q. And in whose jurisdiction was the determination of new territory that was to be taken up for oil purposes?

A. Well, he reported on them and acted in the capacity of geologist for the Associated.

Q. When was it that people first began to go into the Carissa Valley district that you have referred to? **[2613]**

Mr. Mills—That is objected to as immaterial to any of the issues in this case, the Carissa Valley being twenty or thirty miles distant from the lands in suit and across a mountain chain.

A. The first time any of the oil companies went in, that I know of, was ourselves, in 1903.

Q. By Mr. Lewers—How is the Carissa district situated with reference to its accessibility under conditions that existed in 1903?

A. Well, it was about forty miles from the nearest town, forty or forty-five miles, and there was no water or accommodations of any kind in there.

Q. Was it more or less accessible to the existing towns and sources of supply than the Elk Hills at that time?

A. No; it was not as accessible, by any means.

Q. What, if any, indications were there then known or discovered in the Carissa district that led people to go in there looking for oil?

Mr. Mills—Same objection.

A. Well, in one case we had heard of and seen several large oil sands—at least we had heard of these oil sands and when we went in there we found them—surface indications.

Q. By Mr. Lewers—Describe the extent of those in a general way that you found in there.

A. Well, they were scattered along the base of the foothills of the Temblor Range there for a distance of probably fifteen miles at various points; not continuous.

Q. Are they oil sands?

A. Yes.

Q. Well, how do you know?

A. Because they test out under chloroform tests, and so on.

Q. And how thick were any of those oil-sands that you [2614] found in there?

A. Well, they varied a great deal. The particular one I saw when we first went in there was probably fifteen or eighteen feet thick, although it was badly broken up. On account of the dip you could not tell just how thick it was. I should judge in the neighborhood of fifteen or eighteen feet.

Q. And were there any others that were thicker than that?

A. Yes; we afterwards found some that were thicker than that still. That is, not one continuous body of oil-sands but probably two or three stratified oil sands.

Q. How many wells were sunk in the Carissa district that you know of?

A. There are three outside of the shallow pot-holes that have been put down in there. There are three standard wells, what you would call oil wells.

Q. And by what companies were they put down?

A. One was put down by the Vishnu Oil Company and one by the Union and one by the Recruit.

Q. And what results did they obtain from those?

Mr. Mills—It is understood this objection goes to all this testimony?

Mr. Lewers—Yes.

A. The Vishnu obtained a well at about fifteen hundred feet. They have never tested it out to see what production they had. They have a light grade of oil and it is estimated somewhere along about a fifteen barrel well. The Union struck some gas but never got any oil. They didn't continue down more than about eight hundred feet. The Recruit Oil

Company went down fifteen hundred feet and abandoned the well—got no oil. By the way, there has been one other well in there that I have overlooked.

Q. What is that?

A. What they call the Humauma well. **[2615]**

Q. By what company was that sunk?

A. That was sunk by the Humauma Oil Company.

Q. Did they get any oil?

A. They got a slight showing. They got down about twenty-three hundred feet and I understand their money gave out.

Q. So that up to the time you left the field, in 1909, was the Carissa district regarded as an oil district?

A. Well, it was considered to have possibilities. That is about all you could say for it. Because, there had been no development that had proven anything.

Q. From your experience in the field do you regard oil sands of the kind you found in the Carissa district as a sure indication of the presence of oil in commercial quantities?

A. No; I would not say that.

Q. Do you know of any territory that contains showings of that kind that has not developed into an oil district?

A. Oh, yes; there are a great many places that contain the sand and seepages that have not shown up anything after being developed.

Q. Can you mention some of those places?

A. Well, the Rio Grande Company, as they called

it, or Rio Grande field, in San Luis Obispo county, and what is known as the Tar Spring Company in San Luis Obispo county.

Q. What is the nature of the showings there?

A. Well, they have seepages and oil sands.

Q. Have they any wells?

A. They have a few. Not in the localities I speak of, they have no producing well.

Q. Well, have they done any prospecting in the effort to obtain producing wells there?

A. Yes; they have drilled a considerable number of wells through there. Some of them seven or eight barrel wells. Not [2616] considered a paying investment.

Mr. Lewers—You may take the witness.

Mr. Mills—I will cross-examine the witness when I look over these documents.

Mr. Lewers—You might cross-examine him on the portion of his testimony which is entirely distinct from the other.

Mr. Mills—I cannot very well separate it, because I have made up my mind, in view of these documents, to cross-examine upon these all at the same time. And I will cross-examine you on Monday at 2 o'clock, Mr. White, if you will be here.

The Witness—All right.

Whereupon the further taking of testimony herein was adjourned until Monday, July 7, 1913, at 2 o'clock P.M., at the same place.

On Monday, July 7, 1913, at 2 o'clock P.M., by agreement and consent of counsel the further taking

of testimony herein was adjourned until Tuesday, July 8, 1913, at 10 o'clock A.M., at the same place.

On Tuesday, July 8, 1913, at 10 o'clock A.M., the further taking of testimony herein was resumed pursuant to the adjournment:

W. E. WHITE,
recalled, CROSS-EXAMINATION

By Mr. Mills:

Q. Mr. White, when you referred to the daily drilling reports and telegrams and letters and other data in your custody in the Associated Oil Company, as chief clerk, which formed the basis of these summaries, Defendants' Exhibits 172, 173 and 174, you had in mind the documents which Mr. Lewers handed me in your **[2617]** direct examination?

A. Yes.

Q. Including the several packages of papers consisting of telegrams, and these envelops containing the daily drilling reports, and the letters and other data?

A. Everything except these yellow slips. I don't have charge of those. These in the envelops. Those are in our geological department.

Q. By Mr. Lewers—By "yellow slips" you mean pink slips?

A. Yes sir.

Q. By Mr. Mills—You refer to these as daily well reports, do you?

A. Daily log reports.

Q. Now, where did these come from?

A. Those are made out by the superintendent in the field.

Q. And who are they sent to?

A. They are sent to the geological department of the Associated Oil Company.

Q. Have you, since your direct examination on Thursday, conferred with Mr. Lewers?

A. Mr. Lewers and I have talked over the telephone—telling me not to come yesterday but to come this morning.

Q. Have you conferred in any other way with him?

A. No.

Q. These daily drilling reports, known as—or contained in an envelop marked "510", are for what well?

A. Well No. 1 on Section 30, 30-24.

Q. And that consists of two packages?

A. Yes sir.

Q. Do you know anything about the custom of reporting these from the field, Mr. White?

A. The custom is to have what we call a tower report, that **[2618]** is, one report for each twelve hours, which is made out by the driller. He turns those in to the office and they make up one report covering the twenty-four hours.

Q. And that is mailed in to the company's office here?

A. That is mailed in to the company's office in San Francisco.

Q. You are satisfied that these are the original

receipts of the daily drilling reports upon the well No. 1 of Section 30 of 30-24?

A. Yes.

Q. Did you get these for transfer to Mr. Lewers, among the other papers?

A. Yes.

Q. Now, if you will take that first slip, first drilling report—is that the original of the drilling report?

A. This is the original, and then there is a copy kept at the Midway office.

Q. And the name "T. E. Barnes" at the bottom —is that his signature?

A. T. E. Barnes, our superintendent of drilling in the Elk Hills at that time.

Mr. Lewers—The question is, Is that his signature?

Q. By Mr. Mills—Do you recognize his signature?

A. I think not. At least, I don't recognize it as his signature.

Q. It might have been signed by some one else?

A. Some clerk, probably.

Q. And that, for instance, appears to have an initial under this?

A. Yes sir.

Q. And is the same as the other. Who does the "O" stand for, under that name? **[2619]**

A. I couldn't say. That is some clerk.

Q. Now, to be more specific, I call your attention to the daily drilling report for the 29th of July,

1910, upon well No. 1 in Section 30 in 30-24, in the Elk Hills, signed by T. E. Barnes, which states that the formation passed through was from "zero to 20 feet of the surface, started spudding 7 p. m. 7-28-1910", and ask you if that is one of the papers which you handed to Mr. Lewers as a basis of this offer.

A. Yes; this is one of the logs that I turned over to Mr. Lewers.

Mr. Mills—Now, have you any objection to—I don't want to ask that all of the matter that is in these daily reports go into the record. I would like only so much as shows the formation passed through, that is, the depth each day, the date and the remarks.

Mr. Lewers—That is, you mean all of that portion of the log slips that is really historical and not part of the blank?

Mr. Mills—Yes.

Mr. Lewers—I was going to make a suggestion in that connection, if you expect to make use of any part of this, which will facilitate and might shorten the entire proceeding—by merely having a copy made of those portions right straight through that we agree upon.

Mr. Mills—That is satisfactory to me. I have already asked the Examiner to prepare a copy, with a view of agreeing with you to use only so much of these slips as excludes the printed matter and unfilled blank.

Mr. Lewers—That is, use only the blanks that are filled, in other words?

Mr. Mills—Well, some of those need not be reduplicated. For instance, I don't think that has to be reduplicated, or the description, in any case which refers to—**[2620]**

Mr. Lewers—That is, just sufficient to identify the well.

Mr. Mills—Yes. That first one will identify that well.

Mr. Lewers—That is the idea that I had, in order to get sufficient of it to be intelligible without unduly encumbering the record.

Mr. Mills—Yes. Well, the, I think perhaps with that understanding I might read into the record, then, the daily drilling reports of well No. 1 of Section 30 of 30-24, and let it be understoood that they are read with that limitation.

Mr. Lewers—There is no objection.

Mr. Mills—So that the Examiner may go on and copy that much of it into the record.

Mr. Lewers—Yes. In that connection, would you desire the names of the drillers to appear in all cases?

Mr. Mills—I think that ought to appear, except where they are repeated from time to time, and it might show the same driller until a change takes place. For instance, here is the name of C. E. Stephenson and J. B. Simpson on the first report. If that appears on twenty-five subsequent to that, it is not necessary to carry that through but only to carry the name until there seems to be a change.

Mr. Lewers—My recollection of my examination

of those is that there appears to be a shifting, a variation, from time to time, and I cannot see where it is material.

Mr. Mills—It is not material. If the Examiner will take a list of the drillers, it will be sufficient for me—of all the drillers that appear in this—without repeating it in the copying.

Mr. Lewers—That will shorten it very much. With the understanding these records shall be returned to Mr. White as soon as the Examiner completes copying them.

Mr. Mills—Now, the same stipulation may be made—**[2621]**

Mr. Lewers—As to all the logs of the other wells.

Mr. Mills—Yes. Then let the same proceedings appear as to well No. 1 of Section 26, Mr. Examiner, and well No. 3 of Section 24, as to the original daily drilling reports.

(The drilling reports and other documents read in to the record while this witness was on the stand, are transcribed from the original record and bound with the volumes of exhibits and sent up as an original document without being printed.) **[2622]**

Q. By Mr. Mills—Referring to "Defendants' Exhibit 173, which purports to be a tabulated statement of the operations and production on well No. 1 of Section 26, 30-23, the statement covers the time from March 10, 1911, until about August 20th, 1912. Is that correct?

A. That is correct.

Q. It is a fact, is it not, that there are no tele-

grams among those which you produced in support of this summary or tabulated statement which cover the period from March 10, 1911, to March 11, 1912?

A. That is to say, that there is no telegrams covering this period in here?

Q. There are no telegrams covering the period I mention. That is refering to well 26.

A. We must have them.

Q. Will you look? I hand you a bunch of telegrams, Mr. White, covering or purporting to cover the time from October 9, 1911, to March 11, 1912, and ask you if you can find anywhere in that bunch of telegrams any information as to the well on Section 26 included in your tabulated statement, "Defendants Exhibit 173?"

A. During the period mentioned the well was not drilling.

Q. Is that the way you state it? You say the well was flowing?

A. It was flowing; yes. But prior to that time, from the period from March 10 to September 11 there should be telegrams covering the operations on well 26, No. 1.

Q. How as to the other dates, from September 11 on?

A. From September 11 until about the middle of July, 1912, there were no telegraphic reports. I believe the telegraphic reports commenced about the middle of July, 1912, and continued until the well was shut down, in August, 1912. **[2623]**

Q. Now, then, what period of time, as to the his-

tory of well No. 1 in Section 26, 30-23, to which we have been referring, is not covered by telegrams?

A. I couldn't tell exactly unless I had the other telegrams here, but it was approximately from September, 1911, until—

Q. That is, the 1st day of September?

A. Well, approximately the 1st of September, 1911.

Q. Yes.

A. Until about the middle of July, 1912.

Q. Now, what do you mean when you say "the other telegrams"?

A. There evidently is a package of telegrams covering a period from March 10, 1911, up to about September 1st, 1911. You would have a period of from the middle of July, 1912, up to about the 20th of August, 1912.

Q. Those last telegrams, from July 17 to the middle of August, are here in court?

A. Well, then there must be still another package covering the period from March 1911, until September, 1911.

Q. Then, what you mean to say, Mr. White, is that the period up until September 1st, 1911, covering the history of well No. 1 in Section 26 as set out in your summary, was drawn from telegrams which you did not bring into court

A. It is my recollection that was taken from telegrams or the confirming daily written reports.

Mr. Lewers—Which are here in court, Mr. Mills.

Mr. Mills—Now, I object to any interruption of

the examination, Mr. Lewers.

Mr. Lewers—And have been in your possession or under your examination for four days.

Mr. Mills—That statement is untrue, as counsel well knows.

Mr. Lewers—I think your statement is very remarkable.

Q. By Mr. Mills—Now, why didn't you bring in those tele-[2624] grams, Mr. White?

A. Well, we thought we had all that was necessary.

Q. You have endorsed, though, on the Exhibit No. 173, which constitutes counsel's offer as to well 1 of Section 26, information which was contained in those telegrams, have you not?

A. Well, I couldn't state positively now whether this was taken from the telegraphic reports or the daily written reports which you have here. My recollection is, though, that there were telegrams covering that period of time.

Q. And those telegrams you have not here in court?

A. Apparently not.

Q. Mr. White, in this series of letters, signed by Mr. L. J. King, addressed to Mr. Bell, field manager, beginning at March 10, 1910, and running to September 1, 1911, are references to this particular well that we have been discussing. Do these purport to contain some of the information which was on the telegrams you refer to?

A. They contain it, only in some cases it is a little more lengthy.

Q. Which is more lengthy?

A. A little more detail in the written report.

Q. Are you positive that there are not some differences between this written report and the telegrams?

A. There is no other difference except that there may be a little more details in the log or written report,

Q. Now, isn't it true that as a matter of custom the letters—These are the confirmatory letters, are they not, which you referred to?

A. Yes.

Q. That the letters contained, in most instances, the exact statement found in the daily drilling report? **[2625]**

A. They are supposed to and should contain the same information.

Q. Now, I call your attention to a letter dated March 10, 1911, addressed to Mr. Bell, field manager, and signed by L. J. King, among the papers handed to me by Mr. Lewers on Thursday last. Do you know Mr. King's signature?

A. Yes.

Q. Do you know whether that is his signature, or was it signed by some clerk?

A. I think not. I think that was signed by his chief clerk, Williams.

Q. In this letter appears this statement: "Elk Hills—Section 26, No. 1. 3548 feet; 3168 feet of 4½

inch casing; formation 3548, blue shale. Getting ready to make test." That refers, does it not, to this well we have been talking about?

A. It refers to 26, No. 1.

Q. And the well which we have been discussing?

A. Yes.

Q. Now, is it possible that you used any of these letters from March 10, 1911, to September 1, 1911, as forming a basis of your tabulated statement known as Defendants' Exhibit 173?

A. Yes; it is very likely, because some of the telegrams are missing.

Mr. Mills—Let the same method be pursued, then, as to this, Mr. Lewers?

Mr. Lewers—That is agreeable.

Mr. Mills—In respect of introducing so much of each one of these letters into the record as bears on Section 26 well, as if read into the record?

Mr. Lewers—Yes.

Mr. Mills—And I suppose it may be further stipulated **[2626]** that the excerpts taken from these papers as read into the record will have the same force and effect as if the originals were produced and read to the court?

Mr. Lewers—That is agreed.

Q. By Mr. Mills—Again referring to Exhibit 173, which constitutes the tender of counsel for defendants on Thursday last, is there anything which was brought into court purporting to support the accuracy of this offer which covers any of the period from September 1st, 1911, until July 17, 1912, relat-

ing to the history of the operations of well No. 1 on Section 26?

Mr. Lewers—That is what you have just introduced in evidence.

Mr. Mills—No; that does not cover it, Mr. Lewers.

Mr. Lewers—It certainly covers part of the period, don't it?

Mr. Mills—No. It carries it from the last date of what I introduced to the first date of the next set of telegrams.

Mr. Lewers—Oh, you are coming at the telegrams now.

Mr. Mills—No; I am coming at a period that is not covered by anything, so far as I can discover.

A. My recollection is that during the period referred to—

Q. Just a minute. The question is whether there was anything which you brought into court in support of that document which covers that period that I mention.

A. What is that period, again?

Q. September 1, 1911, to July 17, 1912.

A. During that period I believe there was no report.

Q. That is not an answer to the question, Mr. White. It is not responsive. I ask you if you brought anything into court in the way of data, drilling reports, or telegrams or letters, which in any way covered that period that I have [2627] mentioned, from September 1, 1911, to July 17, 1912, relating to the well No. 1 on Section 26.

Mr. Lewers—If you will look at that list just introduced in evidence, Mr. Mills, I think you will find something.

Mr. Mills—I didn't introduce the list.

Mr. Lewers—You didn't call attention to that. You have a right to examine those files carefully, Mr. White, before you answer those questions. There is a lot of stuff in there after September 1st.

Mr. Mills—I will withdraw that question, Mr. Examiner, and ask this question:

Q. Mr. White, have you brought anything into court in the way of letters and telegrams or daily drilling reports or other data which you examined for the purpose of making defendants' offer 173, covering the period from October, 1911, to July 17, 1912, inclusive?

A. To the best of my knowledge, we have nothing. We have brought nothing into court covering that period, as the well was shut down.

Q. You say the well was shut down. Does not the summary or tabulated statement which you produced show, on the contrary, that the well was flowing during the entire time of the period I have mentioned?

A. It was flowing a small quantity of oil during that period.

Mr. Mills—I move that that answer be stricken, as not responsive,

Mr. Lewers—Well, I submit it is responsive.

Q. By Mr. Mills—I didn't ask you how much oil it was flowing, Mr. White. My question is, and I

ask it again, whether, on the contrary, your tabulated statement, which constitutes the defendants' offer 173, shows that well No. 1 of Section [2628] 26 flowed during the entire time of the period I have mentioned.

A. It did flow.

Q. That is not the question. Doesn't your tabulated statement show that?

A. Yes.

Q. Now, have you brought any data into court in support of the accuracy of this exhibit we have referred to, which in any way shows the production, month by month, during the period I have mentioned, from October, 1911, to July 17, 1912?

A. We have production reports.

Q. I ask you if you brought them into court. Just read the question. (Last question read by Special Examiner.)

A. We have.

Q. Where is that data? I am referring, now, to data which is offered in support of the accuracy of this exhibit which on Thursday was submitted to me for examination.

Mr. Lewers—That was already introduced in evidence, Mr. Mills, that other data. He has answered the question. It was brought into court and introduced in evidence.

A. We brought that data. I don't know whether it was submitted or not.

Q. By Mr. Mills—Well, what did it consist of?

A. Letters to the auditor.

Q. Covering well No. 1 of Section 26?

A. Yes.

Mr. Mills—Have those been introduced in evidence?

Mr. Lewers—Yes; they were introduced in Mr. Williams' testimony, Mr. Mills.

Mr. Mills—May I see them Mr. Examiner? (Letters handed to counsel for the government.) That appears to cover it, Mr. Lewers. **[2629]**

Q. Mr. White, I call your attention to a telegram dated January 23, 1912, addressed to F. B. Henderson, A.F.L.Bell, San Francisco, reporting up to midnight of January 22, 1912, and signed L. J. King, in which there is a reference to well No. 1 of Section 30. Will you read that portion of the telegram which refers to the Elk Hills?

A. "Elk Hills. Well Section 30, No. 1. Placed on pump at 2360 feet; started 9 A. M. Pumped water three hours. Turned to oil. Showed production at rate of 350 barrels for eighteen hours. Cut 9 per cent B.S. No water."

Q. Now, I notice that on defendants' offer No. 172 for that date, in your tabulated statement of production—you may read what your tabulated statement gives as to that particular date.

A. "350 rate. 9 per cent B.S."

Q. Now, when you say "rate", you mean the amount of oil that the well will produce in twenty-four hours, don't you?

A. That is it.

Q. So that the statement on the summary is erro-

neous in placing the rate at 350 barrels when in fact the well actually produced 350 barrels for eighteen hours. Is not that correct?

Mr. Lewers—I object to the question, on the ground that the question does not fairly state the report of the telegram, as the word "rate" is used in the telegram and the transcription is a fair one.

Mr. Mills—You may answer.

A. That was copied from the telegram and the word "rate" used in the same sense.

Q. Now, Mr. White, what would be the actual rate per day of twenty-four hours on a well which will produce 350 barrels in eighteen hours?

Mr. Lewers—I object, on the ground that there is no **[2630]** evidence that the well produced 350 barrels in any number of hours. It is merely the report of the telegram that it produced at the rate of 350 barrels.

Q. By Mr. Mills—It would be 466 2/3 barrels, wouldn't it?

A. Yes. But you must understand that that is estimated. It is all guesswork anyway, because they had no way of saving the oil and they simply estimated it at 350 barrels at the time it was operated.

Q. Were you there to see they had no way of saving the oil, when that well was operated on January 22nd, 1912?

A. No.

Q. That forms the basis of that telegram?

A. No; but I know the conditions at the well at the time.

Q. You knew it from hearsay only, didn't you?

A. Well, from our records and office routine.

Q. Yes, from hearsay; that is what I mean. That is correct, isn't it?

Mr. Lewers—That is not hearsay, and it is not fair to ask the witness whether it is or not. Records of an office are not hearsay, in the regular course of business.

Q. By Mr. Mills—Now, Mr. White, a fair interpretation of your tabulated statement would indicate that you intended the court to understand that under the entry for this particular date of well No. 1 of Section 30, that the well was producing each twenty-four hours 350 barrels with 9 per cent B. S.?

A. "Each twenty-four hours"? I don't get that. Because there was only eighteen hours that it did produce.

Q. Is there anything on your tabulated statement to show that it pumped only eighteen hours? You may look at the statement.

A. No, there is nothing on the statement to show that. **[2631]**

Q. You intended to have the court understand, when you made that statement, that the well was producing at the rate of 350 barrels a day, did you not?

A. I meant that the well produced during that day 350 barrels, or at the rate of 350 barrels during that day.

Q. Yes. That is at the rate of what? 350 barrels for what time?

A. That was the total production for the day.

Q. Well, now, you have, on this same sheet, put down the total production for the day at various places, have you not, without putting the word "rate" after the amount of the production?

A. Yes. This statement was supposed to eliminate some of the unimportant details.

Q. It becomes quite important, doesn't it, to inform the court, when you are trying to show the monthly production or daily production of a well, to show that it would produce at the rtae of 466 barrels, if that is the fact, rather than to indicate that it would produce only 350 barrels?

A. Well, practically there is no way of telling whether a well is doing 350 or 400 barrels a day. It is simply an estimate.

Q. When you put down "350 barrels", it was your intention to have the court understand that that well produced at the rate of 350 barrels a day, when you put the word "rate" after 350.? Now is not that true?

A. Well, it may be a little misleading, the way it is put down here; but my intention was to convey the idea that during that day we secured 350 barrels of oil from the well.

Q. What was your intention in the item opposite January 24, on the same well? Was that also to show what was actually produced? **[2632]**

Mr. Lewers—You have a right to look at the telegram.

Mr. Mills—I am referring now to the summary itself.

Mr. Lewers—But he has a right to look at the telegram upon which the summary was based.

Mr. Mills—Well, this question does not call for the examination of the telegram. I am asking him what that meant on the paper itself.

Mr. Lewers—I instruct you, Mr. White, you are not required to answer that unless counsel permits you to examine the telegram for that date upon which you have testified the entry was made.

Q. By Mr. Mills—Now, I understand you to say that it was your intention, as to the entry on January 22, where you say, "350 (rate)", to show that that well actually produced, during all the day that it was pumping or operated, 350 barrels. Is that correct?

A. Yes.

Q. Now, it was also your intention, was it not, in the item of January 26, to show the same thing as to the 400 barrels?

Mr. Lewers—There is the same question again. Will you permit Mr. White to examine that telegram? He is not testifying from his own knowledge, made on the ground, an observation of a well, but has testified that this is a chart that he has made from the telegrams and other records and the chart purports to faithfully represent, as nearly as may be, the results of those telegrams. Now, you ask

him what he meant. He has already testified that he meant to put down what the telegrams and reports showed. You will not permit him to see the telegrams, and I think the question is unfair.

Mr. Mills—I cite your constant interruptions as misconduct. **[2633]**

Mr. Lewers—I will very cheerfully plead guilty to that sort of misconduct; but I would not to yours.

Mr. Mills—Read the question, Mr. Examiner.

Mr. Lewers—I instruct you you are entitled to examine that telegram.

(Question read by Special Examiner.)

Mr. Lewers—Let the record show that counsel refuses to permit the witness to examine the telegram.

Q. By Mr. Mills—Can't you tell that without referring to the telegram? I am referring now simply to your own tabulated statement.

A. Well, in making up the statement I simply endeavored to follow the wording of the telegram and not to put down my own conclusions entirely.

Q. Well, take this question, then: When you put down so many barrels, with the word "rate" after it in one case, and so many barrels in another case without the word "rate", is there any distinction to be drawn from that by the court?

A. Well, wherever the word "rate" was mentioned in the telegrams from which I made this statement up, I included it; where it was not given I left it blank.

Q. Now, do you want the court to understand

that that is true in every instance, Mr. White? Aren't there numerous instances in these tabulated statements where you haven't followed that plan?

A. Well, in some of the reports the word "rate" itself will not be shown, but from the report itself it could be seen that the well was not operating the twenty-four hours, not pumping, for instance, or being operated, the twenty-four hours.

Q. Well, I am speaking generally, now, of the whole statement—wherever you have used the word "rate" after the num- **[2634]** ber of barrels, is there any distinction to be drawn, or did you intend any distinction to be made on the part of the court, from a case where you simply put down the number of barrels without the word "rate"?

A. Yes.

Q. What distinction did you desire the court to have in mind?

A. Well, speaking generally, in the well that would flow at 350 barrel rate, you would have produced 350 barrels.

Q. Yes; and when you say "rate" what time is covered?

A. Twenty-four hours.

Q. Twenty-four hours. So that you intended the court to understand that when you used the word "rate" in any instance, it meant that whatever length of time it pumped for that day, if pumped twenty-four hours at that rate it would produce that number of barrels in that time?

A. Yes; that is my idea.

Q. So that, in this particular instance on the 23rd of January, where, as you read in that telegram, the well produced at the rate of 350 barrels for eighteen hours, the way you have placed it upon the summary is misleading, is it not?

Mr. Lewers—I think your question is misleading. The telegram does not state that that was the fact.

Mr. Mills—I have quoted the telegram exactly.

Q. Why don't you answer, Mr. White?

A. Well, on a statement of this size you could not put all the details.

Q. I understand that; but the question is whether or not it is not misleading, the way you have it, without putting in the words "eighteen hours."

A. It may be a trifle dense, but as the estimate of pro- **[2635]** duction is simply an estimate it really does not make much difference.

Q. Well, Mr. White, the question is whether it is not misleading.

Mr. Lewers—I submit that has been answered—answered twice.

Q. By Mr. Mills—Why don't you answer?

A. It may be a little misleading.

Q. "A little bit misleading". Isn't it misleading to the extent of 116 barrels on twenty-four hours?

Mr. Lewers—That question has been answered several times.

A. Strictly speaking, I presume it would be misleading to that extent.

Q. By Mr. Mills—Now, according to your tabulated statement, Mr. White, 172, that we are now ex-

amining, what was the initial production—350 barrels or 466 barrels—of that well?

A. Well, the initial production was 350 barrels in twenty-four hours.

Q. According to the statement?

A. Yes. Speaking of initial production, however, Mr. Mills, there was a slight production prior to that; so it wouldn't be initial production.

Q. Well, this 350 barrels, then, was after the initial production had—

A. Yes.

Q. That is, it had grown up to that, you mean?

A. Yes.

Q. Now, I call your attention to a telegram dated January 25, Mr. White, addressed to the same parties as the last telegram, signed by the same sender. Will you kindly read that **[2636]** portion of it which refers to this well that we are discussing?

A. "Elk Hills—Section 30, No. 1. Pumping 400 barrels actual gauge at 2360 feet, gravity 24.5; cut 2.1 water, 6 per cent B. S."

Q. Now, is there anything on your tabulated statement to show that that well was put on the actual gauge on that date? Is there anything on your tabulated statement to show that the well ran 400 barrels actual gauge?

A. What is the date?

Mr. Lewers—January 25th.

Mr. Mills—No; up to this night of January 24th.

A. The statement shows production of 400 barrels during the twenty-four hours of that date.

Q. I read from telegram dated January 29, reporting up to midnight of January 28th, as to this well: "Elk Hills—30. Pulled tubing. Put on new pump. Lowered well to 2600 feet. On at midnight." There was a difference of 240 feet in the position of that pump from January 22nd, was there not?

A. I don't get that question, Mr. Mills.

Q. On January 22 the pump was at 2360 feet, according to the information from which you based that summary, and on January 28th, according to the telegram, up to the 29th, the pump was lowered 2600 feet, which would make a difference of 240 feet, would it not?

A. Yes.

Q. Now, what happened in the production as soon as that pump was lowered 240 feet? And I refer you to the information contained in that telegram of January 30, reporting to midnight of January 29th, 1912.

A. With reference to the telegram indicated, dated January 28, 1912, you will note that the well, the fluid level in that well, was lowered to 2600 feet, and not the pump. Under date of **[2637]** telegram of January 30, reporting up to midnight of January 29, 1912, the pump was put down to 2600 feet.

Q. And what happened to the production?

A. The production had been falling off, possibly due to the head being pumped off the well.

Mr. Mills—I move that the latter part of the answer be stricken, as mere speculation on the part of the witness, and not responsive.

Mr. Lewers—I insist that the answer stand.

Q. By Mr. Mills—Now, what production, after the pump was put on at 2600 feet, did the well give?

A. It pumped at the rate of 212 barrels.

Q. And on January 30 the production went down still further, did it not, that is, on the next day, as you have it in your statement?

A. Yes.

Q. Down to ninety barrels?

A. Yes.

Q. Is that correct?

A. That is correct.

Q. And on the following day pumped only a hundred barrels. Is that correct?

A. That is correct.

Q. What is the total production which your tabulated statement gives for January, 1912, on well 1 of Section 30?

A. 687 barrels.

Q. Now, I show you a telegram dated January 23, 1912, reporting up to midnight of January 22. What amount of oil, according to that telegram, was pumped from the well we are talking about?

A. Pumped at the rate of 350 barrels for eighteen hours.

Q. How much oil would that be? Three hundred and fifty **[2638]** barrels, wouldn't it?

A. No, it would be less than that.

Q. How much would it be?

A. It would be approximately 270 barrels, as I interpret it.

Q. Now, I refer you to telegram of January 24, 1912, reporting for the 23rd. What amount of oil, according to that telegram was produced from this well on that day?

A. It is hard to tell from that whether it is producing twenty-four hours or not. It is producing at the rate of 350 barrels in twenty-four hours. Whether it pumped twenty-four hours or not you can't tell.

Q. There is nothing to show that it didn't pump for the full twenty-four hours, is there?

A. No.

Q. And on the preceding telegram there is something to show that it pumped less than twenty-four hours?

A. Yes.

Q. So that it is a fair assumption to say that it pumped twenty-four hours, is it not?

Mr. Lewers—I submit that is purely argumentative. It is not a fair assumption, either.

A. Well, it was producing at that rate, Mr. Mills. It is guesswork.

Q. By Mr. Mills—Well, what did you put down for the 23rd?

A. I put down 350 barrel rate.

Q. Well, how did you arrive at your total monthly production?

A. That is taken from the statements sent in by the superintendent to the auditor, which has already been introduced as evidence. [2639]

Q. What statement was that?

A. The letters to the auditor.

Q. You are referring to your well on Section 26, aren't you?

A. They are all—

Mr. Lewers—They are recited with reference to each well, Mr. Mills.

Q. By Mr. Mills—Then you paid no attention to the telegrams at all?

A. Not in securing the total production, as they do not give it.

Q. Have you anything there for January 27th, in the way of production?

A. No production.

Q. Now, I call your attention to telegram of date January 29th, reporting for midnight of January 27th, "Elk Hills—30-1, pumping 400 barrels at 2300 feet, gravity 25". Have you anything to show that it was pumped on that date on your tabulated statement?

A. On the 29th?

Q. On the 27th.

A. I show here that the well had trouble on that date.

Q. Well, the question is not what you showed affirmatively, but is there anything on that tabulated statement to show that the well produced any oil on that day?

A. No. I considered the fact that the well had trouble on that day more important than the production.

Q. Then you disregarded the telegram, which stated that for that day, "Well No. 1 on Section 30

was pumping 400 barrels at 2300 feet, gravity 25"? Now, you state you regarded the "trouble" as more important that day. Is that right?

A. I will have to look at the original telegram, Mr. Mills, [2640] before I answer.

Q. Will you read the question, Mr. Examiner? (Question read by Special Examiner.) Let the record show that the witness does not answer for several minutes.

Mr. Lewers—Well, let the record show that the witness is examining the telegrams, which counsel has refrained from letting him see before.

Mr. Mills—It does not require any telegram to answer that question, whether he regarded the trouble as more important or not.

Q. Can't you answer the question without reference to the telegram, namely, whether you regarded the trouble which may have occurred on this day as more important than the production?

Mr. McCormick—I think he answered that.

Q. By Mr. Mills—Did you testify to that, Mr. White?

A. I believe I did.

Q. Now, wasn't it your purpose, in making this tabulated statement, and were there not instructions issued to you, to show the actual monthly production of these various wells?

A. Actual monthly production?

Q. Yes. Was not that the purpose?

A. I have shown the actual monthly production.

Q. Won't you answer my question? Wasn't that

the purpose? Not what you did, but what was the purpose?

A. The purpose was to show the actual monthly production.

Q. It was not to show the "trouble", was it?

A. The purpose of the entire statement was to show the history of the operations on that well.

Q. Why were you so particularly interested in showing the great trouble which occurred on a certain day, and for that reason failed to put down on that day the production of the well, [2641] when you say it was your purpose to show the production?

A. Not entirely. It was my purpose to show the history of the operations of drilling, and the work on the well, as well as the production.

Mr. McCormick—I don't think he answered your last question.

Mr. Lewers—I submit he has answered it several times.

Mr. Mills—Read the question and answer, please. (Last question and answer read by Special Examiner.)

Q. As I understand you, then, Mr. White, the figures which you call actual monthly production you didn't take from the telegraphic reports from the field but took from figures submitted to you by some one else, in a different way?

A. Took the production from the regular monthly reports submitted from the superintendent from the field.

Q. And you disregarded these telegrams entirely?

A. Disregarded the production shown on the telegrams, any more than as a matter of information.

Q. So that, in any place where the telegram shows an actual production of in excess of what you state in your total, that is, where the telegrams of that month will show more than that, that was due to the fact that you didn't consult the telegrams for the monthly production but took the monthly report? Is that correct?

A. Let me understand you. You mean by adding up the total production that is shown here daily it would amount to more than the total for the month? Is that it?

Q. No. What I mean to say is that the total which you give for each and every month, where it differs from the total as shown by the telegrams would be due to the fact you didn't consult the telegrams but consulted some other medium of information?

A. I have shown on here daily— **[2642]**

Q. Just answer that. I didn't ask you what you have shown.

Mr. Lewers—I object to the interruption of the answer as the witness starts. You have a right to answer in your own way, Mr. White, and explain your answer as you desire, without interruption from counsel, too.

(Last question read by Special Examiner.)

A. That question is a little dense to me; but I have shown on the statement—

Q. By Mr. Mills—Now, I didn't ask you what you have shown, and I will reframe the question, if you want me to.

Mr. Lewers—I object to the interruption. Permit the witness to answer the question. Every time you see an answer coming you don't like—you indulge in some interruption trying to disconcert the witness. I desire to enter a formal protest against that method of examination.

Q. By Mr. Mills—Mr. White, what I mean to say is this: Wherever the total monthly production as given on the foot of your tabulated statement would differ from the total monthly production as shown by the telegrams, that discrepancy would be due, as I understand you, to the fact that you didn't consult the telegrams to get the production, but consulted some other medium of information? Is that correct?

Mr. Lewers—We object to that, on the ground the telegrams don't show total monthly production. The question is misleading, assumes a fact in evidence which is not in evidence. There is no total monthly production shown on the telegrams.

Q. By Mr. Mills—Where it shows it day by day and the total of those days shows actual production up to a certain amount, and that should differ from the total you show, would it be due to the fact that you consulted some other medium than the telegrams in making up your totals for the month? **[2643]**

A. Yes. In securing these totals, I have taken the totals for each month from the official statement sent in by the superintendent, which are now in evidence.

Q. And you paid no attention to the telegrams in respect to the totals?

A. You could not secure the information from the telegrams, and I disregarded it.

Q. Now, will you answer the question? You paid no attention, did you, to the telegrams in putting in your totals?

Mr. Lewers—I submit he has answered it. He said he disregarded them. He could not get the information from them. If you would listen to the answer before you interrupt him with another question, you would understand it.

Q. By Mr. Mills—Now, can't you answer that question by Yes or No?

A. There was no attention paid to the telegrams in compiling or in setting down the monthly totals shown for each month.

Mr. Mills—Yes.

Whereupon the further taking of testimony herein was adjourned until Tuesday, July 8, 1913, at 2 o'clock P. M., at the same place.

On Tuesday, July 8, 1913, at 2 o'clock P. M., the further taking of testimony herein was resumed pursuant to the adjournment:

W. E. WHITE

recalled,

CROSS-EXAMINATION

resumed [2644]

By Mr. Mills:

Q. Why did you think it was necessary, Mr. White, in answer to those last questions, to look at the telegrams in order to interpret these summaries which you have brought in?

A. Well, Mr. Mills, that schedule there was made up some time back and these things are not very fresh in my memory at the present time.

Q. Did you expect the court in this case to be able to interpret this blueprint exhibit which we have been talking about without the aid of the telegrams, when you who were the constructor of it could not interpret its meaning without the aid of the telegrams?

Mr. Lewers—To which I object, on the ground that it is irrelevant what he expected the court to interpret. That is for the court to determine and not for the witness.

A. At the time I made up that schedule I didn't know that it was to be brought into court.

Q. Oh, you didn't understand that this was to be used as an exhibit in court?

A. No; not particularly.

Q. What did you think it was to be used for?

A. I made it up as a summary of the development and production of the wells.

Q. I ask you, what did you expect it to be used as or used for?

A. Well, I didn't know what purpose it would be used for.

Q. Who told you to make it up?

A. I made it up of my own accord.

Q. That is, no one suggested it to you at all? You thought it a desirable thing to make that so that you might have it for future reference, or something of that sort? Is that what you mean? **[2645]**

A. I thought it was more desirable than to introduce all our telegrams and other office records.

Q. Introduce them where?

A. In any proceedings that might take place.

Q. In any future proceedings?

A. Any future proceedings, at that time.

Q. What kind of proceedings?

A. Any court proceedings.

Q. Possibly any court proceedings affecting the title to these lands, in the United States courts, you mean?

A. No. I will explain the reason for making up the report. One of Mr. Lewers' representatives called at the office and wanted some data.

Q. What was his name?

A. Mr. E. G. Jeffress. And instead of giving him all our office records, I thought it would be advisable to give him a summary of the office records.

Q. Did Mr. Jeffress tell you at that time that there was a case in which the United States was seeking to recover certain lands in the Elk Hills, and that one of the questions involved was the mineral character of the lands?

A. Well, he did not state it in those exact words, but I knew that from other sources.

Q. Then you knew that this information was desired for the purpose of supporting the contention that certain lands adjoining the lands affected by this summary were not mineral in character?

A. Yes; I understood that.

Q. And with that in mind you constructed these three charts which are known as Defendants' Exhibits 172, 173 and 174?

A. Yes.

Q. Now, suppose it had been the contention, and you under- **[2646]** stood it to be so, of the railroad company, to show that these lands were mineral, instead of non-mineral, that is, that they were applying under a mineral law for the lands and agricultural adverse interests had interposed; would you then, in that case, have swelled the rate instead of minimizing the amount of actual production, as you did in one case on this chart?

A. I don't think I have swelled the rate.

Q. I know you haven't; but I say, would you then have swelled the rate or the production, instead of minimizing it, as you confess to have done in one chart here?

A. I have put down the facts, to the best of my ability, as I found them from our office records, neither increasing nor decreasing them.

Q. What control has Mr. Lewers over the affairs of the office over which you preside?

A. None that I know of.

Q. Did you know Mr. Lewers before Mr. Jeffress came there?

A. I knew of him.

Q. And what did you know of him? That is, what did you know about his connection with the railroad company?

A. I simply knew that he was the attorney in the case involved.

Q. You knew that he was the attorney in the case which the government had brought to recover certain lands in the Elk Hills?

A. Yes.

Q. Now, why did you think it was necessary to furnish to Mr. Jeffress this information from the private files of your company? Who authorized you to do that?

A. Mr. Jeffress told me that he had authority to secure that information, and I accepted his word for it. **[2647]**

Q. What officer of the Associated Oil Company authorized you to give up private information regarding the production and history of wells which they claimed to own in the Elk Hills?

A. Mr. F. B. Henderson, assistant general manager.

Q. And in what form did those instructions come to you?

A. I called him on the phone and asked him if it was all right to give that information, and he said yes.

Q. Did you explain to him that a representative

of the railroad company's law department was there seeking information about the wells in the Elk Hills of the Associated Oil Company?

A. I told him who desired the information, and he understood, apparently.

Q. You understood at that time, did you not, as a man abreast of the affairs in your company, that the Southern Pacific Company owned a majority of the capital stock of the Associated Oil Company?

A. I don't know as to that of my own knowledge.

Q. Well, you knew of that by rumor and by hearsay among officers of the company, did you not?

A. From hearsay evidence; yes.

Q. And, that is, you had heard it discussed by your associates in the Associated Oil Company, and knew that the Southern Pacific—

A. That was my understanding, Mr. Mills.

Q. Yes. So that, in furnishing this information, you were really doing it for the parent company of the Associated Oil Company?

A. Well, this particular schedule involved was my own idea. Instead of having them take all our records, and so on, I thought it would be a better idea to have a concise history of the development of our own wells.

Q. Now, will you read the question? (Question read by **[2648]** Special Examiner.)

Mr. Lewers—I submit that has been answered.

A. I was doing it in accordance with the routine of our own business.

Q. By Mr. Mills—That is, it would be a matter

of routine, if the Southern Pacific Company would ask for information from the Associated Oil Company—you would not regard it as strange, would you?

A. That is not the point. I was instructed by my superiors to give the information, and I did it. I don't know where the authority came from, or anything else about it.

Q. Now, at this morning's session I think we reached a telegram dated January 25, reporting up to midnight of January 24, upon well No. 1 of 30-24.

Mr. Lewers—No; you got three days later than that, Mr. Mills.

Q. By Mr. Mills—Well, now, will you refer to the telegram, please, in which this statement appears: "Elk Hills—Section 30, No. 1, pumping 400 barrels actual gauge at 2360 feet, gravity 24.5"? On that day, namely the 24th day of January, the telegram which I have referred to showed that there had been an actual production of 400 barrels, did it not?

A. Yes sir.

Q. Now, in a telegram dated the 30th day of January, reporting for the 29th to midnight, appears this statement: "Elk Hills—30-1, pumping at 2600 feet, production at rate of 212 barrels." That represents, according to your understanding, does it not, that at midnight of January 29th the superintendent reported that as to that well it had been pumping at the rate of 212 barrels during the day of January 29?

A. Yes. **[2649]**

Q. Now, then, you made an error, did you not, in

your summary or tabulation, by placing that on the 28th day of January, 1912.

A. May I see those figures? (Figures shown to witness.) It looks as though we have it just one day in advance of the actual date.

Q. It is clearly an error, isn't it, after refreshing your memory about it?

A. It is clearly an error, inadvertently made. That is, we have taken the date of the telegram instead of the date of the day of production.

Q. On the 31st day of January appears a telegram, addressed to the same parties, F. B. Henderson and A. F. L. Bell, signed by King, reporting for January 30, 1912, up to midnight, in which this sentence occurs: "Elk Hills—Section 30 No. 1, pumping 90 barrels at 2600 feet, gravity 25." You understand that to be a report of the 30th day of January, up to midnight of that day, do you not, and that the well had been pumping that day, up to midnight, and had reported at 90 barrels?

A. That was on the 29th?

Q. On the 30th; reported up to midnight of the 30th.

A. (After examining telegrams.) My record here shows a hundred barrels. It is evident that we have taken the date of the telegram instead of the date of the day that the telegram purports to report on.

Q. In other words, you have made an error in the tabulated sheet, known as Defendants' Exhibit 172, of one day, and got it on the wrong space.

A. Wrong line. It looks as though we had taken the date of the telegram instead of the date of the day it was reported on. **[2650]**

Q. Yes. Now, you may answer the question, after having explained the error in your sheet. Read the question. (Question beginning at line 13 of the preceding page read by Special Examiner.)

A. It is evident that we have taken the date of the telegram instead of the date of the day.

Q. Yes; you explained that. Eliminating that explanation, now, assuming that you have placed it on the correct space in your sheet—

A. Yes.

Q. —will you answer the question, whether you understood from that telegram that it reported the day's operations up to midnight of that day and that that well did ninety barrels?

A. I don't quite understand your question yet.

Q. Why can't you answer it?

A. I don't quite grasp the question. Do you mean to ask if I—

Q. I will ask you again, if you don't understand it, and try and put it in a different form. In the telegram to which I called your attention, did you understand that that constituted a report, in so far as it related to this particular well, of the doings of that well up to midnight of the day before, namely, January 30th?

A. Yes; I did.

Q. That is, that the well did 90 barrels?

A. Yes.

Q. And you placed it down for the 29th?

A. Instead of the 30th.

Q. Is that correct?

A. That is correct.

Q. So that the only error you see is in placing it on the 29th instead of for the 30th? **[2651]**

A. That is all.

Q. Now, in a telegram dated February 1st, and reporting up to midnight of January 31st, addressed to the same parties and signed by Mr. King, the superintendent, appears this sentence: "Elk Hills—Section 30, No. 1. Pumping 100 barrels at 2600 feet, gravity 25." Did you understand that in the same way as you did the telegram preceding, that it was a report of the well's doings up to midnight of the date previous, namely January 31st?

A. Yes.

Q. You, however, have made an error, have you not, in your tabulation, by placing the production for that date on the day preceding.

A. It is evident that I have; yes.

Mr. Lewers—Right in that connection there is some confusion, Mr. Mills. I think Mr. White stated that that was through inadvertently using the date of the telegram. That could not possibly be the explanation, because it is a day ahead instead of a day behind.

Q. By Mr. Mills—So that, Mr. White, according to the actual statements you have now made, which are supported by these telegrams, there was production for the month of January, 1912, a net production

of 1771 barrels of oil, whereas you, in your total for the same month, have only credited that well with 687 barrels? Is not that true?

A. I can't see how you figure the 1771 barrels, Mr. Mills. The statement does not show anything of that kind.

Q. Can you figure in any manner, from your own tabulation, which apparently carries this day by day, but which in fact, as you have stated this morning, does not make the total for the month of January, 1912, agree with the actual production which you yourself have placed on the tabulation, eliminating **[2652]** the word "rate" wherever it occurs?

A. There is no way of totaling up the daily production as shown for the month of January, because in a great many cases it is a "rate" of so many barrels a day.

Q. Well, I was eliminating where it says a "rate" of so many barrels a day, upon your actual tabulation; and taking those which appear to be clear, without the word "rate," can you possibly make the total of those figures, the actual total, agree with the total which you have placed there?

A. The total which I have here is the amount of oil sold.

Q. Well, can't you answer that Yes or No?

A. There is no way of adding "rates."

Q. I have eliminated the "rates" in my statement.

A. We have no data at all to show us the daily production.

Q. I ask you whether you can take the figures in the month of January, as you have placed them on there, where the word "rate" does not occur, add them up, and make the sum total agree with the total which you have placed at the foot of that column.

Mr. Lewers—I object to the question, on the ground that the witness has already testified that that is not production in all cases, but an indication of the rate while the gauge is being taken or an estimate made—just the same as if you would say a train runs 60 miles an hour it does not mean it runs an hour at all.

Mr. Mills—Read the question. (Question read by Special Examiner.)

Q. Now, can't you answer that question Yes or No?

A. I have simply taken the figures as I have found them.

Q. I have asked you another question. Can't you answer that by Yes or No?

Mr. Lewers—He is not required to answer Yes or No at **[2653]** the behest of counsel. You may answer it in your own way, Mr. White, to express your statements and not his.

Q. By Mr. Mills—Now, I ask you again, Mr. White, and I request you most respectfully, if you can do so, to answer it by Yes or No, whether you can make the fitures which you have placed in the column for January, 1912, upon this sheet, for the well on Section 30, agree in its total with the total which you have placed at the foot of that column?

A. I could not answer that by Yes or No very intelligently, Mr. Mills.

Q. Can you make it agree, do you think?

A. The production shown at the foot of the column is our official production for the month.

Q. Well, didn't you explain that this morning?

A. Explain what?

Mr. Lewers—Explained it repeatedly.

Q. By Mr. Mills—You explained what that was this morning, didn't you?

Mr. Lewers—Apparently you don't understand it.

Mr. Mills—Oh yes; I understand so much about this chart that I can give you lessons on it.

Mr. Lewers—I don't think you can.

Q. By Mr. Mills—Now, as a matter of fact, Mr. White, to be perfectly fair, as I think you try to be, you cannot make the figures agree, can you, the totals of the two columns?

A. I have simply attempted to set down things as I have found them. I have not made any attempt to reconcile figures.

Q. Assuming you did that in good faith, and I have no reason to disbelieve that, can't you answer that question so we can proceed to something else? The actual totals of the figures in that column, eliminating those figures after which the word "rate" appears, will not agree, will they, with the [2654] total which you have placed there?

A. Well, I will explain that to you.

Q. I don't care for an explanation. I ask you,

first, that question; then you may explain afterwards if you desire. Will they agree?

A. As these are an estimated daily production there would be no sense in adding them up, because that is simply an estimate.

Q. Why is it that you refuse to answer the question, Mr. White?

Mr. Lewers—I object to that as unfair.

Q. By Mr. Mills—Is it because you are an employee of the company?

A. Not at all.

Q. Under some feeling that you ought not to answer the question?

A. I have no interest one way or the other except to tell what I know.

Q. What is there about the question that you regard as a trap?

A. Well, because I see no way of adding oranges and apples and making oranges, in other words.

Q. Which are the oranges in this case?

A. "Rates"; and we have simply taken these from the telegrams and they are simply an estimated production. The evidence is the official production.

Q. I have told you to eliminate the figures where the word "rate" occurs, although you have not done it correctly even according to the figures themselves.

A. I think I have.

Q. Well, I won't quibble with you. But eliminating those figures after which the word "rate" occurs, and taking only **[2655]** those figures after which

nothing appears, add them up, and can you make them come to the same total you have placed at the bottom of that column?

A. You could not add them up, because that is simply an estimate.

Q. You can add 400 and 400 and 96.

A. But it is an estimated production.

Q. It is not necessary for you to tell what that is. The telegram speaks for itself.

A. It does not, entirely.

Q. I ask you whether you can add up and make the total of the figures in that column which you have put down as actual production total the amount you have put at the foot of the column.

Mr. Lewers—I object to that question, on the ground that it assumes that he has totaled those as actual production to appear in the column. He has repeatedly stated he has not done anything of the kind. The actual production appears at the foot of the column, as he has stated.

Q. By Mr. Mills—Well, now, after so much coaching on the part of distinguished counsel for the defendant, I will ask you this question. See if we can get at it in another way. Will the figures on the column for January, excluding all figures after which the word "rate" appears, after being totaled, foot up to the same amount as the figures which you have put down at the foot of the column?

A. No; I think not.

Q. Now, in what respect do they differ?

A. Because they are simply estimates.

Q. I didn't ask you what they were. I asked you in what respect they differ in amount.

A. They would be more than the total shown for the month. **[2656]**

Q. And how much more, according to your own sheet?

Mr. Lewers—I submit that is a matter of calculation that is apparent on the face of the exhibit.

Mr. Mills—It is a matter of calculation for the benefit of the court.

A. I should say some 200 to 250 or 300 barrels more.

Q. Yes. So that the figures you have placed there, eliminating even those after which the word "rate" appears and allowing nothing for that time or those days, would show an actual production, according to your tabulation, of at least 200 barrels more than you have given for the month of January?

A. That is, taking the daily production shown as being—instead of its being at that "rate." The daily production, however, is simply an estimate. It may be a hundred barrels either way.

Q. Well, I have no desire to argue it with you, Mr. White. Now, as a matter of fact, when you constructed this tabulation you made up a sheet which would apparently show, day by day, from 1 to 31, and month by month, from the birth to the death of the well, that is, until the time when it was closed down, and have carried at the foot of each one of those columns what apparently ought to be a total of the columns, and without analysis the court might be mis-

lead in reading this sheet as to how that sheet was made up, might he not?

A. Well, it shows very plainly—

Q. Well, is not that true?

Mr. Lewers—You will not permit Mr. White to say five words before you interrupt him.

Mr. Mills—Mr. White and I are getting along very well. He is a very intelligent witness.

A. It is marked at the bottom of the page there, actual monthly production, Mr. Mills. **[2657]**

Q. Yes; but that actual monthly production is not, upon analysis, the sum of the different days' production which you have placed on the sheet, is it?

Mr. Lewers—Oh, that has been answered a dozen times over, Mr. Mills. They don't have anything to do with each other. I object to the useless consumption of time on that.

A. It would be impossible to add up the daily production shown, because they are estimates.

Q. By Mr. Mills—As a matter of fact, although you have constructed a sheet as if to show a sum total of all the figures carried in any one column under which it is headed, by taking your information for the entries in the column itself from one source, namely, telegrams and daily drilling reports, or what not, and taking that customarily in bookkeeping or accounting would appear to be the total of those figures from an entirely different source, namely monthly reports? Is not that true?

A. That is true.

Q. Now, you have no knowledge, excepting the

monthly reports as shown by letters introduced in evidence, here, of the daily production during any one month, of this particular well, have you?

A. No; there was no such reports made up.

Q. I didn't ask you if there was any such reports made up; and I move that that answer be stricken. I asked you if you had any knowledge of it.

A. No; I have not.

Q. Please don't volunteer anything until you are asked.

Mr. Lewers—I submit the witness has not volunteered anything.

Q. By Mr. Mills—Now, Mr. White, in that respect, namely, that the totals of the various columns for the different months during which this particular well was operated, were taken from **[2658]** an entirely different source from the source from which the different items were taken, is misleading, is it not?

A. I think not, Mr. Mills.

Q. Do you think that without the aid of an analysis of all of these telegrams, numbering several hundred or a thousand and all of these daily drilling reports, numbering several thousand, that the court could understand how those sum totals were made up that you put apparently at the foot of each column as if it were the sum total of the figures in the column?

Mr. Lewers—I submit that question is unfair. He has not put it "as if it were." He put the words "actual monthly production."

A. I fail to see how you could add the production

of any one column with the percentage of water and B. S. and so on, and make any intelligent footing.

Q. By Mr. Mills—That is not the question. Is not your report misleading to that extent?

A. I think not, if it is looked at in the proper light.

Q. Is there anything on this report to show that the figures which appear as the total at the foot of the columns for the several months were taken from anything except from the figures which appear above them in the column?

A. Well, from glancing up the columns you could see at once that you could not add those different figures.

Q. That might be due to a mistake, might it not?

A. No, I think not.

Q. Haven't you made at least three or four different mistakes in that one month of January?

A. Apparently we have, yes; inadvertently.

Q. And having made those mistakes you might have made a mistake at the foot of the column, might you not?

A. No, I think not. **[2659]**

Q. You think you would be safe at the foot of the column but unsafe on the others?

A. I think these are correct, Mr. Mills.

Q. As a matter of fact, Mr. White, this chart was constructed for the purpose of showing the production which was reported by the month to you and not for the purpose of showing the daily production? Is not that true?

A. No, it is not entirely true. This chart was constructed for the purpose of showing the history of the well in a concise form.

Q. Was it constructed to show the daily production of this particular well?

A. In a measure, yes.

Q. Do you show the daily production?

A. As far as we had the records, we showed it.

Q. Now, if you had gone to these telegrams and analyzed them carefully, you would have found that for the month of January you should have credited that well with 1771 barrels, instead of which you credit it only with 687 barrels because you took your information from the totals from an entirely different source.

A. The telegrams don't show the daily production. They show an estimated daily production.

Q. When you find a telegram which says 500 barrels were pumped on a certain day, does that show the actual production, or is that an estimate?

A. That is an estimate.

Q. And does the man who reports that particular item have sufficient qualification as a superintendent of a large concern like the Associated Oil Company to make a pretty close estimate of the production of a well for one day?

A. It depends on circumstances. In this case they had a **[2660]** very rough way of estimating it. If they had a tank to run the oil into they could gauge it very closely.

Q. Didn't they gauge the oil, and wasn't it the

custom of Mr. King to gauge the oil which came from these wells?

A. They did in a rough manner.

Q. Now, do you know, from the information which you have in your possession as custodian of the files of the Associated Oil Company, that on the 24th day of January, where you have credited this well with 400 barrels of oil, that the well did not pump twenty-four hours but produced 400 barrels in less than twenty-four hours?

A. Without referring to the record I couldn't answer that question.

Q. Well, is there any record in this court-room that would enlighten you on it?

A. Well, the daily drilling reports would show that.

Q. The drilling reports would show that?

A. Yes.

Q. You say you have not examined your drilling reports?

A. I have examined the drilling reports.

Q. I thought you said this morning you had not examined the drilling reports in making up this chart.

A. I think not.

Q. The daily drilling reports.

A. I examined them as they came in every day.

Q. Did you have those in mind in making this chart?

A. Are you referring to the typewritten report here?

Q. No; I am referring to what you called the daily drilling reports.

Mr. Lewers—Log reports, is what you mean.

Q. By Mr. Mills—No; I am talking about the daily drilling reports, using your own language. [2661]

A. I certainly had access to the daily drilling reports.

Q. Well, did you have those in mind, I say, when you constructed these exhibits?

A. Yes, we used those in constructing them, partly.

Q. As a matter of fact, the well on Section 30 and other wells which were producing oil, operated by the Associated Oil Company in the Elk Hills, were using a part of their production to maintain some fifteen or eighteen other wells in fuel in the Elk Hills, were they not?

A. I think not.

Q. Didn't they ship fuel out to the other wells that they were operating, from these wells?

A. No; I think not. Not to any great extent.

Q. Do you think they shipped as high as two to three and four hundred barrels a month of this oil which they produced here, for fuel, to fifteen or eighteen other wells they were operating in the Elk Hills?

A. I think not.

Q. Do you know how much oil was shipped for fuel to the other wells?

A. No; I don't know of any that was shipped

from the production of the Elk Hills wells to other wells.

Q. Now, in the month of January, 1912, well No. 1 on Section 30 of 30-24 was operated only six days, was it not?

A. That is, you mean actually on the pump, Mr. Mills?

Q. Yes sir.

A. It would appear from this chart that it had been on the well about seven days.

Q. By Mr. Lewers—On the well or on the—

A. On the pump.

Q. By Mr. Mills—And it flowed 295 barrels, about, or nearly 300 barrels—that is, it produced 295 barrels, or **[2662]** nearly 300 barrels a day, for the month of January? Is not that true?

A. I think not.

Q. Notwithstanding that the pump was lowered 260 feet, or 240 feet.

A. It was lowered because the fluid level had lowered.

Q. I understand about the fluid level. It pumped in excess of 250 barrels a day for the time it was operated in the month of January, 1912, did it not?

A. I think not. I can't see it that way. There were intermittent days in there, you will notice, that the well was shut down—trouble.

Q. Now, Mr. White, you have taken great pains and trouble on this chart to show whenever there was any trouble, by inserting, on the day, instead of a blank for no production you would take the

pains to write in the word "trouble." In the month of January you wrote that word in five different times during a period of less than half a month, didn't you?

A. Yes.

Q. Why was it that Mr. King, as superintendent of the Associated Oil Company, when a well only pumped for eighteen hours, reported it as eighteen hours, when it pumped for ten hours he reported it as ten hours, when it pumped any aliquot part less than twenty-four hours he always reported the exact number of hours it pumped, and in all other instances he reported up to midnight of the day on which he reported?

A. Why did he do that?

Q. Yes.

A. That was to give us an estimate of the capacity of the well, I presume.

Q. And on every other day when he didn't report it for a time less than twenty-four hours, it pumped steadily right **[2663]** along for the twenty-four hours, steadily day after day, and you know it, don't you, Mr. White?

A. We took it for granted when he didn't put anything else in his advice to us, that the well had been pumping steadily.

Q. Certainly. Now, I want to ask you, in the month of February,—Now, if you took it for granted it was pumping right along steadily for twenty-four hours unless you got advice to the contrary, why was it that you gave this well no credit for the 22nd day

of January, at 350 barrels, and why was it that you gave no credit on the 23rd day of January for any production, and on the 24th day of 400 barrels, and on the 26th day of 400 barrels, and on the 28th day of 212 barrels, the 29th day of 90 barrels, the 30th day of 100 barrels?

Mr. Lewers—I submit that has all been asked and answered repeatedly.

A. We have shown that exactly that way on the schedule, Mr. Mills.

Q. By Mr. Mills—Then what you meant by that schedule was that you wanted to give the well the credit for that produceion for that day according as it appears there?

A. Well, those are simply estimates of the production for that day and we took it for granted that the telegram was an abbreviated way of reporting these things.

Q. Then, on the estimates will you estimate, please, how much production was actually made, according to your total sheet, for the month of January?

Mr. Lewers—I object to the useless consumption of time on going over something that has been repeatedly asked and answered. It is a frivolous waste of time.

Q. By Mr. Mills—Just estimate it, please, according to that.

A. Well, the estimate is shown by the figures there. I **[2664]** could not improve on that in any way.

Q. What you mean by the estimate would be the addition of those figures? Is that what you mean?

A. That is the only information I have in the matter, and I could not estimate the production to any better advantage.

Q. That is satisfactory. I won't attempt to test you out on addition. Now, let me call your attention to this telegram of February 3, reporting up to midnight of February 2, 1912. Is not that the end of it over here? That is the only way I can account for that sheet. This one here, at the end of this telegram; is not that the one that you found misplaced?

Mr. Lewers—No; the one that was misplaced is in June or July.

A. This says, "Reported January 29."

Q. By Mr. Mills—It seems to agree with your 300 barrels there, and that is the only way I can account for it.

A. Yes; evidently that is it.

Q. On February 3, in a telegram addressed to the same parties, Mr. Henderson and Mr. Bell, reporting drilling operations up to midnight of February 2nd, 1912, appears this statement: "Elk Hills —Section 30, No. 1. Placed on pump at 2600 feet at 5 P. M. Producing at rate of 300 barrels, gravity 25." On the next day, February 5, reporting for February 3, a telegram of that date, made and addressed to and by the same parties, states: "Elk Hills. Section 30, No. 1, pumping 72 barrels at 2600 feet, gravity 25." As you recollect it now, that was

the time when the pump was lowered from 2360 feet to 2600 feet, or shortly thereafter?

A. I think it was, Mr. Mills.

Q. On February 5, reporting up to midnight of February 4, telegram to and by the same parties, recites: "Elk Hills—Section 30, No. 1. Pumping 72 barrels at 2600 feet." On **[2665]** February 6, reporting up to midnight of February 5, 1912, a telegram to and by the same parties recites, "Elk Hills —Section 30, No. 1, pumped last twenty-four hours 53 barrels." On February 7, reporting up to midnight of February 6, a telegram to and by the same parties recites, "Elk Hills—Section 30, No. 1, pumping 53 barrels at 2600 feet." On February 8, reporting up to midnight of February 7, a telegram to and by the same parties recites, "Elk Hills, Section 30, No. 1, pumping 50 barrels at 2600 feet. Cut 8 per cent water, 12 per cent emulsion." Now, on February 9, reporting up to midnight of February 8, a telegram to and by the same parties recites, "Elk Hills, Section 30, No. 1, pumping 50 barrels at 2600 feet. Cut 8 per cent water, 12 per cent B. S." February 10, reporting up until February 9, a telegram to and by the same parties recites: "Elk Hills—Section 30, No. 1, pumping 50 barrels at 2600 feet. Put in bull-wheels and put on cable to swab well. Cut 8 per cent water, 12 per cent B. S." Now, on March 1, reporting up to midnight of February 29, 1912, a telegram to and by the same parties recites: "Section 30, No. 1, Elk Hills. Pumped last twenty-four hours 120 barrels of oil." Now, Mr. White,

construing those telegrams as you have construed all of these telegrams, that where no recitation to the contrary appears, and allowing for the cut of 20 per cent of water and emulsion in each of the instances, that well should have been credited with a net production of 790 barrels instead of 560, as you have stated, for the month of February? Is not that true?

A. I couldn't say it is.

Q. You can't say it is not, either, can you?

A. I would say that you could not add those daily productions and emulsions and so on and arrive at any definite results. The footing shows the amount of oil we saved, and I believe **[2666]** that to be correct.

Q. You can't swear now, on your oath, that it is not true, can you?

A. Well, I don't believe there is any way of adding those daily productions and arriving at any definite results.

Q. Assuming that the well, unless the contrary appears from the telegrams, was pumping full twenty-four hours, then you have failed to credit that well with a substantial per cent of its production for that month? Is not that true?

Mr. Lewers—I submit that has been asked and answered repeatedly. Counsel will insist on the assumption that those are true totals of the production, made in that way, and the witness has repeatedly said they are not. I don't think it is a fair proposition to ask that sort of a question.

Mr. How—Not intended to be or ever claimed to be.

Mr. Mills—That is, you now repudiate your offer of yesterday and desire to withdraw it?

Mr. Lewers—I do not. I understood it. I supposed any intelligent man would. I never accused you of lack of intelligence, so I can only attribute your constant misinterpretation of it to some other cause.

Mr. Mills—Read the question. (Question repeated by Special Examiner.)

Mr. Lewers—I add the further objection that the question is hypothetical, assuming something in evidence which is not.

A. I would simply put down the daily estimated production as I received it from our records.

Q. By Mr. Mills—The daily estimated production?

A. Wherever it was shown.

Q. Now, assuming that that is the estimated production, you have failed to credit the well with the amount of production it is entitled to, haven't you, by over a hundred barrels of oil, **[2667]** or nearly two hundred?

A. Well, the daily estimate may be in error to more than that amount, or that amount at least.

Q. 230 barrels?

A. The daily estimated production is a thing that fluctuates greatly. It may be correct, and it may be a hundred barrels either way.

Q. Now, do I understand you to say that the fig-

ures which appear opposite the daily blanks here on these sheets are the estimated production for the particular month in the column in which they appear?

A. They are supposed to be; yes.

Q. Regardless of what appears at the foot of the column?

A. Yes. The footing has nothing whatever to do with the total.

Q. So that on the entire three wells, for the full time, you find that the total estimated production is 13,103 barrels as against a credit of 6,628 barrels?

A. I have not totaled the figures, Mr. Mills.

Q. Now, assuming that I have correctly added those figures, what became of the rest of that oil?

Mr. Lewers—I object to that question on the ground that it is assuming something not in evidence.

Q. By Mr. Mills—Referring to the month of March, 1912, on well No. 1 of Section 30, 30-24, I see you have the figure opposite March 1, or under March 1, 75 barrels. Was that actual or estimated production that you intended?

A. They were all estimated daily productions.

Q. What do you mean by the statement "They were all estimated?" Were none of them actual?

A. Except where they were shown here as actual gauges, they were estimates. **[2668]**

Q. For instance, where do you show on actual gauge?

A. In the telegrams, I think one day in January.

Q. Well, this occurs as one of actual production for twenty-four hours, doesn't it, March 1st? I refer now to telegram tendered by Mr. Lewers in support of the accuracy of this chart, of the date of March 2, 1912, addressed to the same and written by the same parties, wherein it recites: "Elk Hills, Section 30, No. 1. Pumped 75 barrels last twenty-four hours." That was an actual production, wasn't it?

A. I couldn't state, Mr. Mills.

Q. Well, according to this telegram, what would you say? Would you construe that to be an actual production?

A. I would construe that as an estimate.

Q. That is, where it flatly says, "Pumped 75 barrels last twenty-four hours," you would construe that as an estimate?

A. Yes; in the absence of further information I would say that was an estimate.

Q. On March 4, 1912, a telegram addressed to Henderson and Bell by King recites as follows: "Section 30, No. 1, pumped 50 barrels last twenty-four hours." That makes 125 barrels, does it not, actual production?

A. I couldn't say whether it is actual or estimated production.

Q. And the telegram of March 4, reporting for March 3, same parties, "No. 1, pumped 50 barrels last twenty-four hours;" and telegram of the 5th, reporting for the 4th, which recites, "Pumped 50 barrels last twenty-four hours;" and a telegram of the

6th, reporting for the 5th, which recites that the well was flooded with 250 barrels of oil to place back on the pump; on the 7th of March, reporting for the 6th of March, in a telegram by the same to the same parties, which recites that this particular well pumped 200 barrels the last twenty- **[2669]** four hours—will you look at these? I hand you now the rest of the telegrams for that month, beginning with March, 1911, reporting for March, 1910, and ask you to glance through them preparatory to answering a question. (Telegrams handed to witness.) Now, do you find, Mr. White, after examining the balance of the telegrams for the month of March, 1912, relating to well No. 1 on Section 30, that your estimated production agrees with the telegram for each of the days?

A. You have reference to the totals shown at bottom of the columns?

A. No; I mean with reference to the daily entries.

A. I think the daily entries are substantially correct.

Q. That is, you find that your entry, or the entry of the daily production, for that month agrees with the telegrams as to those days?

A. I think so.

Q. Can you give us a total of the estimated production as shown by the daily estimate in that column?

Mr. Lewers—I object to that. If counsel desires

to add up on a fruitless chase of that kind, let him do it himself and not take the time of the witness.

A. It seems here—

Q. By Mr. Mills—Well, just add them up as estimates.

A. In one case they had a day where they poured oil back into the well.

Q. Well, add the 250 barrels first which the telegram shows came from the well, and then deduct it because it was poured back. That is a simple calculation, isn't it?

A. I see no way of making the totals agree.

Q. I don't ask you to have the totals agree. I ask you what the total of your estimate for daily production is.

A. I have no voice in the matter. The total estimated **[2670]** production is shown hereon.

Q Well, will you kindly foot up the figures which you put down as the daily estimated production and tell me what it is?

A I can add up these daily productions.

Q That is what I want you to do.

A But it will be of no value, I believe.

Mr Lewers — Well, add them up and see if they agree with Mr Mill's arithmetic.

A Well, adding up the daily estimated production, excluding those days on which "rate" is shown, and also excluding 200 or 225 barrels that was run back into the well to flood it, would give an estimated total for the month of 600 barrels.

Q By Mr Mills — That is fater excluding the 150 for the 18th?

A Excluding the day of the 18th when it pumped at the 150 barrel rate.

Q And the one on the 10th?

A And also one on the 10th.

Q Of 100 barrel —

A 100 barrel rate.

Q Now, what did you do with that 250 barrels?

A With the 250 barrels that was run back into the hole?

Q Yes.

A Well, that was included in the production in the first four days.

Q Yes.

A That would practically offset the first four days' production. Outside of that there would be approximately 600 barrels as an estimated production for the month.

Q Now, I show you a telegram of March 11th, reporting for March 10th, and in that portion of it which refers to the production of this well do you find anything that indicates [**2671**] the well was not pumped for twenty-four hours at a rate of 100 barrels? I am referring to this particular telegram.

A Well, not by referring to this particular telegram, but by referring to the telegram for the day previous you will find the well was shut down accumulating head.

Q Well, assuming that it was, the inference from

that telegram is that it pumped twenty-four hours? It says so.

A Yes.

Q And that it pumped at the rate of 100 barrels? Is not that true?

A That is true; but you should take into consideration the fact that it was pumping a head that had accumulated the day previous.

Q Well, supposing it had; how much oil would you say it pumped for that day?

A There is no use stating, but I would say from this telegram it had pumped 100 barrels during that day.

Q Now, I refer you to the telegram of March 19th, to the same parties, by Mr. King, reporting up to midnight of March 18th. Will you state what the reference is there to the amount of oil pumped on that day from this well?

A This telegram states that this well pumped at the rate of 150 barrels during last twelve hours.

Q Well, how much oil would that be actual production?

A That would be in the neighborhood of 75 barrels.

Q So that, by adding, then, the 100 barrels for the 10th day of March and 75 barrels for the 18th day of March to your estimated total, how much would you have for the month of March?

A Well, that would make an estimated production of 775 barrels.

Q Now, what was the production that you placed

there from the reports, monthly reports, for that month? [2672]

A The amount of oil reported to us as being actual production for the month of March was 320 barrels.

Q There is actually a difference, then, between the estimated amount by the daily production and the amount reported to you, of 455 barrels?

A Yes; taking into consideration the seepage and evaporation.

Q Or more than a hundred per cent. Is not that true?

A Yes.

Q How many days during that month of March was that well on the pump?

A Approximately twenty days.

Q And notwithstanding all of the trouble which your chart shows the well had, pulling rods for days at a stretch, and trouble of other kinds, and flooding the well, the estimated production as you have now figured it out amounts to 38-¾ barrels a day, about, of 25 gravity oil?

A That would be the estimated production of it. I have not figured it.

Q Now, Mr White, what is the difference in value between 25 gravity oil and, say, 15 gravity oil?

A There is considerable difference. It depends on the market fluctuations, you know.

Q Well, is there any general relative value between the two?

A Oh, yes.

Q How would you express it?

A Well, I should say that 25 is worth in the neighborhood of 55 cents a barrel, and 15 is worth practically 30 cents.

Q It is almost double, then, the value of oil at the gravity of 15?

A That is, if it is clean, commercial oil. [2673]

Q This well No. 1 on Section 30 of 30 - 24, taking the estimated daily production as you have given it, and as shown by the telegrams, excepting where you have made errors, would show that that well was operated actually about ninety-three days, with an average daily production of fifty-four barrels, would it not?

A No; I think the well was operated over a period of practically eight months.

Q Well, I am talking about being on the pump.

A Well, it was on the pump off and on over a period of eight months — seven months, at least.

Q Well, was it on the pump during the months of October and November, 1911?

A No.

Q Was it on the pump in August and September of that year?

A Not 1911. It was put on the pump in January, about the 19th of January it was put on the pump, and was on and off until — well, until August.

Q That is true enough, but I am asking you when it was on and not off. It would be about ninety-three days by actual count, wouldn't it, according to your own chart?

A I have not computed it. I have not added up the number of days, Mr Mills.

Q Do you think, now, that your chart, Defendants' Exhibit 172, correctly states the time when that well was on and off the pump?

A I think so. I think that statement is substantially correct.

Q You say "substantially correct". Is that as far as you will go?

A Well, it is correct, to the best of my knowledge and belief. **[2674]**

Q I call your attention to a telegram dated June 3, reporting up to midnight of June 1st, 1912, between the same parties. What is the statement there about Section 24 of the Elk Hills?

A "Elk Hills — Section 24, No. 3, pumped 40 barrels of oil, 20 barrels of M. and B. S. Most a shale. About 12 per cent water."

Q They actually pumped 40 barrels of oil and 20 barrels of M. and B.S., of about 12 per cent water. Is that correct?

A The "M and B. S., mostly shale and about 12 per cent water."

Q Yes. That refers to the mud and B.S. ?

A Yes.

Q But it was 40 barrels of oil pumped on that day, was it not?

A Well, this may be 40 barrels of sludge. It depends whether it could be separated or not.

Q What does it say.

A "40 barrels of oil and M. and B.S."

Q Is there anything there that says anything about "rate"?

A No.

Q Yet on your sheet for well No. 3 on Section 24 you estimate the production of that day at a "rate" of 40 barrels of oil.

A Which would mean the same thing.

Q It wouldn't mean the same thing if that well only pumped one hour, would it?

A No.

Q Is there anything in this telegram to show that that well pumped twenty-four hours?

A There is nothing to show the contrary.

Q Therefore you assert that it must have pumped that? [2675]

A 40 barrels in the twenty-four hours.

Q Very well. Now, we will use the same plan on all these. Pardon me a moment. I call your attention to telegram of June 3, reporting up to midnight of June 2. Will you examine it with reference to the report on the well on Section 24 and state how much oil it reports having been pumped that day?

A "Elk Hills — Section 24, No. 3. Pumped at 2500 feet 45 barrels of oil, 25 barrels bluish shale or rotary mud, 10 barrels of water."

Q Now, what does the statement which you prepared and was introduced in this case as Defendants' Exhibit 174 show for that day?

A It shows it had produced 40 barrels, some oil, mud and water.

Q Doesn't it, on the contrary, show that it produced at the rate of 40 barrels?

A It is the same thing. 40 barrels for the twenty-four hours.

Q Will you turn to the telegram dated the 5th day of June, reporting for the 4th, on Section 24?

A "Elk Hills, — Section 24, No. 3. Pumped 90 barrels of oil, 10 barrels M. and B.S. in nine hours. Still pumping and shows great improvement.

Q How much was actually pumped that day?

A 90 barrels.

Q Now, will you turn to the telegram of the 6th, relating to the 5th, as to the same well?

A "Pumped 190 barrels and 10 barrels M. and B.S. the last twenty-four hours."

Q How many barrels of oil, then, would you say were produced on that well for that day?

A Well, their estimate is 190 barrels. [2676]

Q Well, using that telegram as the basis of information, how many barrels would you say were pumped on that well on that day?

A Approximately 190 barrels.

Q Now, take the telegram of June 7, reporting for the 6th.

A "Elk Hills — 24, No. 3, pumped 125 barrels net last twenty-four hours. Only slight trace of water."

Q Will you refer to your chart and state what entry you have made for that day?

A "125 barrels (rate) for the twenty-four hours".

Q How many barrels, then, do you say were pumped from that well on June 6th?

A Well, their estimated production is 125 barrels.

Q Do they say "estimated production" in the telegram?

A No. That would be my understanding of the production for that day. They estimate it at 125.

Q In other words, if the telegram even says "125 barrels net pumped", you say it is estimated?

A Well, that was net in this case because they had no M. and B. S.

Q How many barrels, according to the telegram of the 8th of June, were pumped from that well?

A "Pumped 125 barrels. Shows some water."

Q How many barrels were pumped on the 9th from that well?

A "Pumped 174 barrels pure oil. Shows quantity of gas."

Q How many barrels were pumped on the 8th?

A "Pumped 115 barrels practically all oil and pure, gravity 21.8, cut .9 water .2 B.S."

Q What does that .9 mean?

A That would be 9/10th of 1 per cent.

Q Practically 1 per cent? [2677]

A Yes; practically.

Q That is on the 8th, is it?

A That is to midnight of June 8th.

Q So that 1 per cent of that 115 barrels of pure oil would be about one barrel and a seventh?

A Yes.

Q And on the 10th of June how many barrels were pumped from that well?

A "Pumped 120 barrels showing large quantity of gas."

Q How many barrels were pumped on the 12th of June from that well?

A "Well flowed almost continuaously while pulling tubing."

Q How many barrels?

A "This morning started flowing between casings. At present time is making 800 or 900 barrels. This may not keep up at this rate."

Q Between eight and nine hundred barrels?

A Eight and nine hundred rate.

Q Does it say "rate"?

A No; but it says here, "It is making 800 or 900 barrels. This may not keep up at this rate."

Q Yes. On the 14th how many barrels were pumped from that well, 14th of June?

A "Flowed 250 barrels through 6-¼" casing."

Q And on the 15th how many barrels did it flow?

A "Flowed 300 barrels."

Q On the 16th how many barrels were produced from that well?

A "Flowed spasmodically, putting out large quantity of oil sand; also making good clean oil. Produced 750 barrels oil yesterday."

Q That would be the 15th, wouldn't it? It is reporting [2678] up to midnight of the 16th.

A Yes.

Q On the 17th how many barrels were produced from that well?

A On the 17th there was produced 325 barrels.

Q On the 18th how many barrels were produced from that well?

A 225 barrels.

Q On the 19th how many barrels were produced from that well?

A 200 barrels.

Q On the 20th how many barrels were produced there?

A 200 barrels.

Q On the 21st?

A 175 barrels.

Q On the 22nd?

A 150 barrels

Q Was that pumped or did it flow?

A This is flowing.

Q On the 23rd?

A 150 barrels.

Q Now, how many were produced on the 24th of June from that well?

A 175 barrels.

Q On the 24th?

A On the 24th; midnight, June 24th.

Q Will you read the entry for that day, please, on the telegram?

A "Elk Hills, Section 24, No. 3".

Q What date is that telegram?

A "June 25th.", reporting up to midnight of June 24th.

Q Yes. [2679]

A "Elk Hills, Section 24, No. 3. Cleaning out at 2940. Well flowed 175 barrels. Sand comes in about as fast as taken out."

Q On the 25th of June how many barrels flowed from that well?

A About 150 barrels.

Q On the 26th how many barrels were flowing from that well?

A 125 barrels.

Q What is the entry for that day?

A "Elk Hills, Section 24, No. 3. Cleaned out to 2950 feet. Well flows continuously. Made 125 barrels."

Q On the 27th of June how many barrels were produced from that well?

A 100 barrels.

Q Will you read the entry?

A "Elk Hills, Section 24, No. 3. Cleaned out to 2990 feet. Gas blows sand out of hole as fast as tools mix it up in bottom."

Q On the 28th of June how many barrels were produced from that well?

A 100 barrels.

Q Now, on the 29th and 30th of June there was a cleaning out generally of the well, was there not, according to the telegrams?

A "Cleaning out."

Q Yes. So that, according to the actual reports from the field made daily, and not from any monthly statement, that well produced for the month of June,

working twenty-six days, 5214 barrels of oil, whereas from the report which you received from the field and from which you made up this exhibit you have stated the total to be, for that month, 2965 barrels? [2680]

A Yes.

Q Or a difference of a little over 2000 barrels of oil, one well, in the month. As a matter of fact, Mr. White, that well, for the month of June, averaged 200 barrels a day, did it not, working 26 days during that month?

A No, I think not.

Q Well, assuming that I have added the figures correctly, 5214 barrels per month divided by 26 would give you the amount per day, would it not?

A The amount of the estimated production?

Q Yes.

A Yes.

Q Which would be about 200 barrels. Is that correct?

A Yes, approximately.

Q Now, will you take the month of August, so as to expedite matters, beginning with say the 4th of August — the telegram of the 4th, reporting for the 3rd. What oil was produced?

A "Flowing at rate of 50 barrels."

Q And on the 4th of August?

A "Flowing at rate of 100 barrels."

Q The 5th?

A "Flowing 100 barrels."

Q The 10th?

A Flowing a trifle over 100 barrels a day.

Q What is the entry?

A "Elk Hills, 24, 3. Fishing for lost drilling bit. Well flowing trifle over 100 barrels per day actual measurement in tank."

Q For the 11th of August. Read the entry.

A "Fishing for drill bit, well flowing 100 barrels per twenty-four hours day. Also flowing regularly with oil, a [**2681**] quantity of 3,200,000 cubic feet gas." Does your chart show any record of the gas on that well, that is, your exhibit?

A No. I have not shown any gas on there.

Q That is, Exhibit 174. Now, for the 12th of August.

A "Flowing 100 barrels oil, 3,000,000 cubic feet gas. Fishing for drill bit."

Q The 13th?

A "Flowed 100 barrels, 3,000,000 cubic feet gas. Fishing for bit."

Q Do you understand that they were fishing for that bit while this was flowing oil?

A Yes sir. I have got it so marked.

Q What was the 14th?

A "Flowing 100 barrels oil, 3,000,000 feet gas, fishing for bit."

Q What kind of a bit is that they were fishing for? Drill bit?

A Drill bit; yes.

Q Do you know the weight of it?

A No. Let's see if that was a rotary.

Q Yes; that is a rotary.

A It was not so much the weight of it; it is the awkward part to get hold of.

Q Now, the 15th. What performance did the well make on that date?

A "Flowing same prior report. Making special fishing tool to fish for lost bit."

Q On the 16th?

A "Flowing same as yesterday. Will fish for bit today."

Q On the 17th?

A "Flowing the same. Fishing for bit."

Q On the 18th? [**2682**]

A "Flowing, and trying to get hole cleaned out down to bit. Sand running in badly."

Q On the 19th?

A "Flowing, and fishing for bit."

Q On the 20th?

A "Unable to recover drill bit. Will therefore cap well as directed."

Q Now, who had the power to direct the capping of that well?

A Mr Bell, the field manager.

Q Now, will you read the entry for the 21st of August?

A "Elk Hills, Section 24, No. 3. Closing well in tight to shut down."

Q Read the telegram of the 22nd, so far as it relates to this well.

A "Elk Hills. Section 24, No. 3. Capping and will be closed down today."

Q On the 23rd. What does the telegram say for the 23rd?

A "Elk Hills. All wells shutting down."

Q Is that all it says?

A That is all.

Q Is there a later telegram than that?

A There is one on the 24th here, same thing.

Q Well, read that one.

A "Elk Hills. All wells closed down."

Q As a matter of fact, that well was closed down by direction of somebody at a time when the drill bit could not be recovered, was it not?

A Yes.

Q Has that ever been recovered?

A Not to date.

Q During the entire month of August, then, that well was [**2683**] continually flowing, was it not, according to the reports which you have read from those telegrams?

A Up until the 21st of August.

Q Until the time it closed down?

A Yes.

Q And it flowed at the rate of 100 barrels a day during the month of August, beginning at the 4th day of August?

A Well, this report does not show that that way. It shows that on the 4th and 5th it flowed 100 barrels; and then, commencing with the —

Q You are reading from your chart now?

A Yes.

Q I am talking about the telegrams you just read.

A Well, I have not —

Q Well, go on with your chart.

A It shows that the 4th and 5th it flowed 100 barrels, then, commencing with the 10th, it flowed 100 barrels until the 21st.

Q That is, daily?

A Up until the 21st of August.

Q That is, daily?

A 100 barrels daily.

Q Now, how many barrels would that be, during the month of August? That is a simple calculation.

A That would be an estimate of 1250 barrels.

Q And how many barrels are credited, according to the plan by which you constructed the chart, for that month?

A The chart shows 150 barrels. The balance, or a great deal of the oil, being run back into the hole to keep down the gas pressure.

Q You think they ran back 1250 barrels or 1000 barrels into a hole that will hold 175 barrels? [2684]

A The hole will hold more than 175 barrels.

Q How many barrels will a hole hold?

A It will depend a great deal on the formation. The casing itself would hold 175 barrels, approximately.

Q Where did you get the information that we find on your total for the month of August, on Exhibit 174, namely, "150 barrels. All production this month pumped backed into hole to hold back gas pressure."? Where did you get that information?

A Well, at the time I made up this schedule I no-

ticed this same discrepancy; that is, adding up the daily drill production, it looked to me we ought to have more than 150 barrels within the month. So I took the matter up with Superintendent King and asked his explanation of it.

Q That is, orally?

A No. By wire.

Q Well, without stating what the wire contained, you got it, then, from some wire that Mr King sent you?

A He sent me his explanation of why the month was not more than 150 barrels, stating that —

Q Never mind. Don't state what the wire contained. You are not entitled to give that. Then you have not produced anything before the court here to show how you came to make that statement, have you, in this chart?

A No; I have not. We can do it, Mr Mills.

Q Well, it would probably be incompetent evidence at this late date. The Associated Oil Company has no title to that land, has it, Mr. White?

Mr Lewers — I object, as not cross-examination, and asking for a legal conclusion.

A I am not acquainted with the details of that, Mr Mills. I couldn't tell you.

Q By Mr Mills — Are you able to state on your oath that [2685] the oil company have anything more than a contract with some locators to drill that land?

A I couldn't say just what arrangement they have made.

Q Well, generally, don't you know that they have

a contract with certain locators in the Elk Hills to drill certain land there?

A That is simply hearsay, again, Mr Mills.

Q Yes; that is what I mean. You know that, don't you, generally?

A I know that I have heard the rumor.

Q Yes. Now, all these wells were ordered closed, including well No. 1 on Section 26 and well No. 3 on Section 24, of 30 - 23, and well No. 1 of Section 30, 30 - 24, besides all the other wells which were in operation or being drilled, dominated by the Associated Oil Company — were closed and shut down under the same order?

A Some of them had been shut down prior to that time.

Q But all that were then operating were shut down under the one order?

A Well, I would not say that exactly. Some of them had been shut down prior.

Q All that were operating at the date that this well was shut down were shut down under the same order?

A I believe that was the only one operating.

Q There were two other wells operating in the month of August at about that time, were there not?

A Yes.

Q And they were shut down under that order, which was issued from San Francisco?

A Yes.

Q Now, do you know where that order emanated from?

A It emanated from the San Francisco office. [2686]

Q And do you know from what officer the order came?

A I couldn't say. It was transmitted by Mr Bell, field manager.

Q Don't you keep custody of the files of Mr. Bell's office and have access to the order which shows?

A Well, a great many of those things are verbal and not on paper.

Q Did you ever see a written order in your files ordering those wells shut down?

A I think I have seen it.

Q You don't know whether it was accompanied by verbal instructions or not?

A Well, it may have been. I couldn't say. But I believe we have a letter on record in reference to authorizing Mr Bell to shut them down.

Q Now, from whom is that letter. Who signed that letter?

A I couldn't say whether it was Mr Porter or Mr Scribner or Mr Henderson.

Q Did Mr William F. Herrin, of the Southern Pacific Company, have anything to do with the Associated Oil Company while you were in custody of the files of the office you now hold?

A In what way?

Q In any way?

A I have never come in contact on anything with Mr Herrin.

Q Mr Herrin was an officer of the Associated Oil Company at one time, was he not?

A I believe so; yes.

Q And what office did he hold?

A I think he was a director and —

Q By Mr Lewers — He was president.

A He was an official, a president, at one time, I believe. [**2687**]

Q By Mr Mills — Were you in the employ of that company while Mr Herrin was president.

A Yes.

Q He is the same William F. Herrin who is in the law department of the Southern Pacific Company of this city, is he not?

A I don't know anything about Mr Herrin. I believe he is; yes.

Q Who keeps the minutes of the proceedings of the Board of directors of the Associated Oil Company?

Mr Lewers — I object, on the ground this is not cross-examination, and I don't think it is proper. You have already asked and ascertained from the secretary of the company who keeps them.

A The secretary of the Associated Oil Company, Mr P. G. Williams.

Whereupon the further taking of testimony herein was adjourned until Wednesday, July 9, 1913, at 10 o'clock A. M., at the same place.

On Wednesday, July 9, 1913, at 10 o'clock A. M., the further taking of testimony herein was resumed pursuant to the adjournment:

W. E. WHITE.

recalled, CROSS-EXAMINATION resumed.

By Mr Mills:

Q Who was T. E. Barnes?

A T. E. Barnes was the superintendent, or under-superintendent, drilling foreman, of the Elk Hills division.

Q And did he have authority to act in the absence of Mr [2688] King, who was the superintendent?

A Yes.

Q In all matters pertaining to the jurisdiction of Mr. King?

A Not exactly. All matters pertaining to the Elk Hills wells.

Q I mean as to the Elk Hills wells.

A Yes.

Q Now, Mr White, you have spoken of getting some information which forms the basis of these exhibits, Defendants' Exhibit 172, 173, and 174, by the medium of telephone from the field, with Mr King. Did you ever telephone to Mr Barnes?

A I think you misunderstand me. There was no information secured over the phone that was made the basis of this schedule.

Q Now, let us understand each other. Didn't you state yesterday —

Mr Lewers — Telegrams, he said.

Q By Mr Mills — Oh, by telegram?

A There was one telegram.

Q Now, did you ever have any conversation with

Mr Barnes with reference to the Elk Hills wells of the Associated Oil Company?

A I may have, but I don't recall any conversation with Mr Barnes.

Q Did you ever talk with Mr Barnes, at some time prior to the 15th day of May, 1912, with reference to the construction of this 4-inch pipeline from the Elk Hills to the Pioneer Midway on Section 30 of 31- 23?

A I don't recall any such conversation.

Q Did Mr Barnes, at any time in or about the month of May, 1912, have a discussion with you about the purpose of the [**2689**] construction of what you have termed the pipeline No. 1, which runs from these wells in the Elk Hills to the Pioneer Midway?

A I can't recall having any conversation, practically, with Mr Barnes at all.

Q In which Mr Barnes stated that that line was constructed for the purpose not of supplying oil for fuel for work upon those sections of lands, but for the purpose of sending oil from the wells to Fellows?

Mr Lewers — To which I object, on the ground that no foundation has been laid for the question, that no time or place is fixed, and that it is obvious, considering the answer of the witness, that he had no conversation with Mr Barnes about the matter at all, that counsel is now following the same procedure that was followed in the examination of the witness J. A. Taff and others, in which, under the guise of asking questions purporting to be impeaching questions, counsel attempted to testify into the record concerning statements alleged to have been made by T. E. Barnes and

others at different times and places; and I assign the repetition of this as prejudicial misconduct and as unprofessional conduct on the part of counsel. And I make the further objection that this is not cross-examination of any matter that was brought out in the direct testimony of this witness. And I desire to add the further objection that the statement of counsel purports to be taken from evidence given by T. E. Barnes at the land office hearing, in which T. E. Barnes testified, not with reference to the pipeline counsel now refers to but with reference to a branch pipeline that ran from Section 30 over to Section 26 — an entirely different matter — and not pipeline No. 1.

A I don't recall having any conversation with Mr. Barnes.

Q By Mr Mills — Did you have any conversation with a man by the name of James McKay, who is the "trouble" man for the [**2690**] Associated Oil Company?

A No; I think not.

Q With reference to the same subject.

A I don't recall any such conversation.

Q Are you familiar with the practical operation of oil wells?

A In a measure.

Q That is, have you ever operated yourself?

A No.

Q Have you ever been in charge of the operation of a well either drilling or at any time?

A No.

Q You spoke of this bit, or drill head, or drilling stem that was lost in the well on No. 3 of Section 24 in 30 - 23. Do you know what that was?

A It was what we call a fish-tail bit.

Q And what size was it? Do you know? Diameter, and so forth.

A I don't know.

Q Will you examine the documents you brought into court here and ascertain the diameter of that pipe or casing at that point where it was lost?

A It was a 6-¼ bit, or a bit run into 6-¼ pipe.

Q Do you know what the weight of a bit of that size would be?

A No, I don't

Q Well, as near as you can estimate it from those you have seen.

A Well, I should say 200 or 250 pounds.

Q What was the size of the casing?

A 6-¼ inch.

Q Now, the drill bit, or the bit, the drill stem, or [2691] whatever it was that dropped in there, was less in diameter than the casing, was it not?

A Yes.

Q How much less?

A Oh, slightly less. It makes a 6-¼ inch hole.

Q About six inches?

A Practically six inches.

Q Do you know what the elevation of Section 30 of 31- 23 is?

A 30 of 31- 23? I could not any more than give you an estimate.

Q About 1200 feet, isn't it?

A I don't believe it is quite that high. It may be.

Q Do you know what the elevation of Section 24 of 30-23 is?

A No, I do not.

Q About 1300 feet, as nearly as you recollect it, isn't it?

A I know there is a slight difference in elevation between Section 30 in 31-23 and Section 24 in 30-23. No great difference in elevation.

Q Now, in order for that pipe line to get to Section 24 of 30-23 from Section 30 of 30-23, it would necessarily cross the valley at a lower point than the Pioneer Midway, or about 875 feet, would it not, elevation?

A A line running from that well to the Pioneer Midway would cross a lower elevation than the Pioneer Midway property.

Q And, as nearly as you recollect, it would be about 875 feet elevation at the lower point where it crosses?

A I couldn't state.

Q Do you know, of your own knowledge, whether there is more than one pumping station connected with pipe line No. 1? [2692]

A There is only one pumping station I know of.

Q Do you know, as a matter of fact, that it is connected? Have you seen it?

A It was connected —

Q Have you seen it, is the question.

A Yes.

Q You saw it connected?

A I didn't look into the details of the connections, but I know that we pumped oil from that station through the line, and it must have been connected.

Q Well, how do you know that?

A Because that is where we secured our fuel oil for the drilling of the wells.

Q Well, I am asking you if you know of your own personal knowledge, from something you have seen yourself and not from something you have read or heard other people talk about?

A Well, I have not seen the oil going through the line; no.

Q And you have not actually seen the connection of that line, have you?

A No, I have not seen the details of the connection.

Mr Mills — Then I move that the answer of the witness, so far as it appears to be hearsay, be stricken.

Mr Lewers — I submit that the answers are proper and responsive to your questions.

Q By Mr Mills — Mr White, will you look at this drilling slip and give the date of it, please, and the well to which it refers?

A Well 1, Section 30, Township 30 - 24.

Q What date?

A For twenty-four hours ending 12 P. M., 1st day of June, 1911.

Q What endorsement is there on that drilling slip? [2693]

A L. J. King.

Q And what remarks appear above his signature?

A "Hauling pump and 4-inch line to take care of any oil that well may flow."

Q Is that the original daily drilling report for that day which was sent in from the field?

A Yes.

Q I hand you another drilling report. Will you state for what day that report is and what the endorsements are?

A For the twenty-four hours ending 12 P. M. the 2nd day of June, 1911.

Q And signed by whom?

A Signed by "L. J. K."

Q What is that?

A It is evidently intended for the signature of L. J. King.

Q Is that the original daily drilling report for that day on that well?

A I believe it is; yes.

Q Will you read the remarks which Mr King put or caused to be put on that report?

A "In starting to wash mud out of hole, hole was found to be over one-half full of solid oil. Water evidently having seeped away through the oil sand, and mud from rotary had settled to bottom. Well showed so much gas that it is not advisable to complete washing or drill any further until we have line installed to take care of production."

Q Now, I hand you another daily drilling report. Please state what that is.

A It covers the period of twenty-four hours ending 12 P. M. the 3rd day of June, 1911.

Q On what well? [**2694**]

A Well No. 1, Section 30, 30 - 24.

Q Signed by whom?

A Signed by L. J. King.

Q And what statements appear upon that report?

A "Generally placing things in condition to handle flow of oil."

Q Is that an original daily drilling report?

A Yes.

Q I hand you another paper. Will you state what that is?

A This covers a period of twenty-four hours ending 12 P.M. the 4th day of June, 1911.

Q On what well?

A Well No. 1, Section 30, 30 - 24.

Q And signed by the same party?

A Signed L. J. King, per G.N.

Q Is that an original daily drilling report on that well for that day?

A Yes.

Q Will you read the endorsement on that, please?

A "Generally placing things in condition to handle flow of oil."

Q I hand you another paper. Will you state what that is?

A Report for the twenty-four hours ending 12 P. M. the 5th day of June, 1911.

Q For the same well?

A Well No. 1, Section 30, Township 30 - 24.

Q And by whom signed?

A Signed by L. J. King, per G.N.

Q What is the endorsement?

A "Generally placing things in condition to handle flow of oil."

Q I hand you another paper. Will you state what that is? [**2695**]

A It covers a period of twenty-four hours ending 12 P. M. the 6th day of June, 1911, well 1, Section 30.

Q Signed by the same party?

A Signed by L. J. King, By G.N.

Q And what is the endorsement?

A "Preparing to handle expected flow of oil."

Q I hand you another paper. Please state what that is.

A This covers the period ending at 12 P. M. the 9th day of June, 1911, signed by L. J. King, per G.N.

Q Is that the original daily drilling report for that day?

A Yes.

Q On the same well?

A On the same well.

Q Signed by the same party?

A Yes.

Q What is the endorsement?

A "Preparing to handle expected flow of oil".

Q I hand you another paper. Please state what that is.

A This covers a period of twenty-four hours ending 12 P. M. the 10th day of June, 1911.

Q What is it?

A It is the original daily drilling report.

Q Upon the same well, signed by the same party?

A Yes.

Q What is the endorsement?

A "Preparing to handle expected flow of oil".

Q It appears, then, from the daily drilling report of that period that that 4-inch line was used for the purpose of taking care of any accumulation of oil or production of oil from that well? Is not that true?

Mr Lewers — To which I object, on the ground that the [**2696**] question is indefinite. It does not say which 4-inch line you are referring to. The other 4-inch line, it seems, was constructed in 1910.

A This 4-inch line they are simply hauling in there to connect the well with the fuel line already in there.

Q By Mr Mills — That is, to the line which you call pipe line No. 1?

A Yes.

Q And for the purpose of taking care of any production from that well?

A That was the idea.

Q And pumping it to the Pioneer Midway? Is that correct?

A Yes.

Q Mr White, I hand you another daily drilling report. Will you examine it and state what it is?

A This report covers the period of twenty-four hours ending 12 P. M. the 26th day of February, 1912.

Q On what well?

A On well No. 1, Section 30, 30 - 24.

Q Is that an original daily drilling report signed by Mr King?

Mr Lewers — I will concede that all of these are originals that you are referring to.

A Yes; that is the original.

Q By Mr Mills — Will you please read the endorsement on that report?

A "Swabbing out oil to get enough to flood well. Fluid stands 1800 feet from surface. Well shows up better than heretofore."

Q I hand you another paper. Will you state what that is?

A The daily drilling report covering the period of twenty-four hours ending 12 P. M. the 27th day of February, [**2697**] 1912, well No. 1, Section 30, 30 - 24.

Q Signed by Mr King?

A Signed by Mr King per some one else.

Q And what is the endorsement?

A "Swabbing well to accumulate enough oil to flood well. Fluid swabs down to 2200 feet from surface."

Q I hand you another paper. State what that is.

A The daily drilling report for the twenty-four hour period ending 12 P. M. the 28th day of February, 1912, on well 1, Section 30, 30 - 24.

Q Signed by Mr King?

A Signed by Mr King per some one else, and reads as follows: "Put on pump at 2600 feet to accumulate enough oil to flood well."

Q Those three drilling receipts cover the period

in which they were pumping oil from the well itself in order to accumulate enough to flood it, do they not?

A Yes sir.

Q And that was the usual custom on all these three wells?

A Yes; they have been pumping some of the oil out and running it back.

Q Were you ever present, Mr White, at any occasion in the Elk Hills, at any one of these three wells, when you actually saw the parties in charge pumping hot oil into the well?

A No, I was not.

Q Will you examine this sheet I show you in that bundle and state what it is?

A It is the written report of the drilling department on Elk Hills division, well 1, Section 26, 30 - 23, for March 10th and 11th, 1911.

Q Signed by whom?

A Signed by L. J. King, per W. [2698]

Q Is that one of the papers which you had custody of?

A Yes.

Q Now, will you state what the letter says about this well?

A "March 10, 3548 feet; 3168 feet of 4-½ inch casing. Formation 3548 blue shale; after washing mud out of hole and washing oil formation at 3342 feet to 3485 feet with drill pipe we pulled drill pipe out of hole. As last of pipe came out, gas blew nearly all of water out of hole and 30 feet above derrick. The hole bridged over with sand at 2640 feet, stop-

ping the flow. March 11, 3548 feet; 3168 feet of 4-½ inch casing. Formation 3548 feet, blue shale. Baling hole from top of bridge at 2640 feet: Shows a very small amount of water. Well flowed twice of its own accord."

Q Will you state what that paper is, Mr White?

A That is a report of the drilling department for March 12, 1911, on various Elk Hills wells.

Q Signed by whom?

A Signed by L. J. King, per W.

Q Will you read what it says about this well on 26 of 30 - 23?

A "Elk Hills. 26 No. 1 3548 feet; 3168 feet of 4-½ inch casing; formation 3548, blue shale. Unable to break bridge with bailer at 2640 feet. Well flowed twice of its own accord and once from agitation with bailer, probably two or three barrels of oil at each flow. Shows a very small amount of water."

Q What is that paper, Mr White?

A That is a report of the drilling department for March 20, 1911. It covers various Elk Hills wells.

Q Signed by whom?

A Signed by L. J. King per W. [**2699**]

Q Will you state what it says of this well we are discussing, on 26?

A "Elk Hills - Section 26, No. 1. 3548 feet; 3104 feet to 3548 feet 3 liner. Baling well. Commencing fluid level stood 300 feet from surface, receded to 1200 feet; now stands 700 feet and cannot lower same at present time. Shows more gas as bailing is continued."

Q Does the exhibit offered through your testimony covering this well, the record of its operation and history for the 20th day of March, have any endorsement of the gas at that point?

A No, it does not state anything in regard to the gas.

Q Now, I show you this paper, Mr White, and ask you what it is.

A That is a confirming report of the drilling department for March 25, 1911, covering various Elk Hills wells.

Q Including Section 26?

A Yes.

Q Signed by whom?

A Signed by L. J. King, per W.

Q Will you read the statement the letter contains as to 26?

A "Elk Hills, Section 26, No. 1. 3548 feet; 3104 to 3508 3 inch liner. Formation 3548, blue shale. Well pumped intermittently; some water; also flowed. Produced approximately 75 barrels oil." Will you examine Defendants' Exhibit 173 for March 25th and state what endorsement you have placed on that exhibit.

A It looks from this as though I have —

Q Just state what appears on 25, if you can read it.

A "Pumping and drilling water."

Q Is that all that is contained on March 25th?

A That is all. [2700]

Q Then you haven't correctly given the history of this well on that date, have you, on Exhibit 173?

A I have the information shown on the next day following.

Q I say, you have not, on March 25th, given the correct information concerning the history of the operation of this well on Exhibit 173, have you?

A In making up this report I could not say whether I used this or the telegram. I would have to refer to the telegram to determine.

Q Is there a telegram covering March 25th, 1911, among the papers which you brought into court?

A I would have to look into that. (Examines telegrams.)

Q The question is whether there is any telegram among those papers which you brought into court, covering the date I have given you.

A I fail to find any.

Q And you know of none that was brought in, do you?

A No.

Q Now, the other question is still unanswered. If you will read it, Mr Examiner. (The question beginning at line 5, this page, read by the Special Examiner.) Will you answer that question?

A I can't answer that by Yes or No. I would have to answer it in my own way. I have made up this schedule from our office records. I couldn't say whether they were made up from telegrams or from reports which you have here; but at any rate the information shown in the daily report which you have

there on the 25th is shown in my schedule on the 26th, and I could not say whether that is an error in report or an error of my own. At any rate it was inadvertent.

Q What telegram do you refer to when you say that you may have examined and got your information from a telegram [**2701**] rather than from this report, or this written report signed by Mr King?

A My recollection is that we were at that time receiving daily telegraphic reports which we haven't brought with us.

Q That is, covering the month of March and subsequently, on that—

A I believe at that time we were securing telegraphic reports as well as the daily written reports.

Q Now, why is it that you didn't bring into court those telegrams which gave that information?

A Well, we presumed that we had everything. It was overlooked; that was all.

Mr Lewers — That is the fact, Mr Mills. There is no effort to conceal anything. Those were brought into court by me, and I am responsible for it.

Q By Mr Mills — Now, paying no attention to the excitement of counsel for the defendants, if you will kindly inform me why you didn't bring in the telegrams covering this period, if, as you say, you might have taken this information from those telegrams.

A I didn't know that they would be required.

Q Then this chart which you call Defendants' Exhibit 173 is in part made up from information

taken from telegrams which have not been produced in court to test its accuracy?

A It is possible we have some telegrams at the office that would cover a small period shown hereon.

Q On this chart 173 for Section 30?

A I would not say that is a fact or say it is not a fact.

Q Well, did you get it from a telegram? The telegram is not in the court-room nor brought in by you in support of the accuracy of this Exhibit 173.

A No; I brought no telegram here. [2702]

Q Then the chart known as Exhibit 173 was made up from information obtained from other data not brought into court?

Mr Lewers — I submit that has been answered three times.

Q By Mr Mills — Is that true, Mr White?

A It is possible that I have secured some of this information from telegrams, although you have the confirming records here.

Q That is, from telegrams not brought into court?

A Yes. I would not state that is a fact, because I am not positive there were such telegrams.

Q Then where did you get it? If you can't state it as a fact, where did you get the information?

Mr Lewers — Get what information? I object to the question as indefinite.

Q By Mr Mills—Where did you get it, Mr White, if you didn't get it from a telegram?

A Get what?

Q Do you ask me that because counsel for the defense indicated to you some question to ask me?

A You have been interrupting so much I can't get your question.

Q You say you would not swear to it as a fact that you got it from a telegram which you didn't bring into court. If you can't swear to it as a fact that you got it from a telegram which you didn't bring into court, where did you get it?

Mr Lewers — I submit that that whole question is obviously unfair. The witness answered, if you will recollect, that he may have gotten some information portrayed on those charts from other telegrams not brought here. He was not certain that he did, and his answer was not directed to any particular piece of information.

Mr Mills — I object to your constantly coaching the witness [**2703**] under the guise of good faith objections.

Q Will you examine Exhibit 173, which is the chart you prepared for well No. 1, Section 26, and state whether the information which you have placed there under date of March 25th is correct according to the papers which you have brought into court to support its accuracy?

Mr Lewers — I submit that question has been answered three times.

A There seems to be a discrepancy of one day in the date; but the information for the 25th is shown on the 26th on this schedule.

Q By Mr Mills — Now, will you answer the question more specifically?

A I can't do that.

Q Does the date March 25th, as shown on your chart, Defendants' Exhibit 173, give the information correctly for that day according to the papers you have brought in to support the accuracy of this chart?

A It does not agree with the date on the drilling report for the 25th.

Q Now, you made some statement that it does agree with the following day, didn't you?

A I believe it does.

Q Now, is there anything on the following day by way of endorsement on Exhibit 173, which you hold in your hands, showing that the well flowed on that day?

A I show here on this statement that the well was pumped and flowed on the 26th, instead of on the 25th, I presume. There is simply an error in the date there, Mr Mills. That is the trouble with it.

Q Mr White, will you examine this paper which I show you, and state what it is? [**2704**]

A That is a confirming report of the drilling department for March 31, 1911, covering various Elk Hills wells, signed by L. J. King, per W.

Q Does it cover the well we are discussing, on 26?

A 26, No. 1; yes.

Q Will you read what endorsement there is there?

A "Elk Hills, Section 26, No. 1; 3548 feet; 3104 to 3548, 3 inch liner. Pumping by air at 3050 feet;

shows a production of twenty barrels per day. No water."

Q Now, will you examine Exhibit 173 and state whether the information concerning production for March 31 has been correctly placed on that exhibit?

A I have averaged the production for March 29th, 30th and 31st under a total of 90 barrels of oil and 9 barrels of water for that period.

Q Well, I asked you whether the 31st bears any endorsement of 20 barrels per day, according to your chart.

A It does not state specifically that there was 20 barrels production on the 31st, although there was 90 barrels produced for the three days of March 29th, 30th and 31st.

Q That is up to 7 A. M. the 31st, isn't it, according to your chart?

A Yes.

Q That is accounted for in a report previous to this, is it not, in the report of March 30th, that is, the 90 barrels that you have placed there? You may read the report for March 30th, so far as it affects Section 26.

A "Elk Hills, Section 26, No. 1. 3548 feet; 3104 to 3548 feet, 3 inch liner; formation 3548, blue shale. Stopped compressor at 3 A. M.; lowered tubing to 3050 feet. At noon put in air; started fluid with 675 pounds, dropped down to 150 pounds (run compressor until 7 A. M. March 31). Production all [2705] told, from 10 A. M. March 29 until 7 A. M. March 31, 90 barrels oil and 9 barrels water."

Q Now, that production as stated on that report for March 30th agrees with what you have put on for the 29th, 30th and 31st of March, does it not?

A I have shown the —

Q Answer the question. Does it agree, or doesn't it? (Previous question read by Special Examiner.)

A Yes.

Q You find, however, on the chart which you have prepared, no endorsement according to the report for March 31, namely, 20 barrels per day.

A From this report —

Q Just a minute. Read that question, and see if it can be answered by yes or no.

Mr Lewers — You have a right to answer in your own way, Mr White. You are making the answers; not Mr Mills.

(The question beginning at line 28, preceding page, read by Special Examiner.)

Q By Mr Mills — Can't you answer by yes or no?

A I cannot.

Q Well, will you answer this question: Do you find, about March 31st, any endorsement on Exhibit 173, under date of March 31st, of 20 barrels of oil per day?

A I do not.

Q Then it does not agree — that is, your Exhibit 173 does not agree with the report for that date, does it?

A The report for the day of March 31 does not show conclusively that the well produced 20 barrels.

Q Well, what does it say about the 20 barrels?

A It says it shows production of 20 barrels; but on the report from the — [**2706**]

Q I am not asking you about the report.

Mr Lewers — You may complete your answer.

A March 30th, it shows the compressor was shut down at 7 A. M. on March 31st, and that production I have shown included in the period of thirty days which is shown on the report for the day of March 30th, 1911.

Mr Lewers — You will find on examination that is correct.

Q By Mr Mills — Now, I ask you this question, again: Mr White, does your prepared chart which forms the basis of Defendants' Exhibit 173 agree with the report signed by Mr King under date of March 31st as to that well?

A I believe it does, in substance.

Q That is, it shows a production of 20 barrels per day, does it, on your chart?

A The report for the —

Q Now, answer that question, will you?

Mr Lewers — You may answer in your own way, Mr White.

Q By Mr Mills — Now, will you answer my question? Repeat the question, without all that subsequent talk, Mr Examiner. (Question beginning at line 5, this page, read by Special Examiner.) Why don't you answer?

A My chart shows the production for the day of March 31st.

Q The question is, does your chart, under date of March 31st, as reported in this report of Mr King, show a production of 20 barrels?

A It does not, because there was no daily report to show that the well produced 20 barrels.

Q Does not the daily report for March 31st, signed by Mr King, read as follows: "Section 26, well No. 1. Shows a production of 20 barrels per day, no water"?

Mr Lewers — Will you read the other one for March 31st?

A The report of March 30th shows that the well is shut [**2707**] down at 7 A. M. on March 31st.

Q By Mr Mills — I am asking you whether this report, dated April 2, signed by Mr King, which you have identified, does not state that for March 31st this well we are discussing shows a production of 20 barrels of oil and no water? This is what I am talking about, this specific question.

A It shows on there; yes.

Q And your chart does not show that, does it?

A My chart shows the production of the well —

Q Your chart does not show 20 barrels for March 31st, does it?

A Not specifically.

Q And what it does show is included in a report up to 7 A. M. of March 31st, as you have it, of 90 barrels of oil. Your report was dated by Mr King on March 31st and reporting for March 30th? Is not that true?

A It also reported for March 31st.

Q Will you answer that question first before you tell me what it also reported?

Mr Lewers — I submit he has answered it. What more do you want?

Mr Mills — I will tell you. I would as soon test the question out right now as to whether this witness will answer a question.

Mr Lewers — Go ahead.

Mr Mills — If you take the position that the witness shall not answer a specific question reasonably answered by yes or no, I am willing to test it right now, if that is your purpose. I supposed you wanted to facilitate this examination.

Mr Lewers — I do; but when you are attempting to create confusion by refusing to allow the witness to explain that there are two reports covering the same period and that he has [**2708**] taken the aggregate —

Mr Mills — This report — perhaps you have not read it.

Mr Lewers — I have.

Mr Mills — This report for March 30th runs to 7 A. M.

Mr Lewers — Of March 31st.

Mr Mills — Now, the report for March 31st is dated April 2nd and shows for the whole day of March 31st.

Mr Lewers — Which may have been before 7 A. M., when they took off the compressor.

Q By Mr Mills — Now, Mr White, I am going to give you an opportunity to answer this question, and

we will see whether you can answer it or not. If the question is unfair, the court will tell me so; but I will test this out with you now.

Mr Lewers — I except to the statement of counsel and to the manner of counsel, flourishing a pencil in a menacing manner in the direction of the witness and talking in a tone that indicates an attempt to intimidate, as unprofessional and prejudicial.

Q By Mr Mills — Now, Mr White, I ask you again whether your report shows, under date of March 31, a production of 20 barrels per day?

A It does not, specifically.

Q Yet you had a report before you, did you not, dated April 2, 1911, reporting for March 31, 1911, showing an actual production of 20 barrels per day?

A I had two reports.

Q I ask you if you didn't have that report before you? Did you have that report before you?

A I evidently did.

Q And yet you didn't put it down upon the date of March 31st, did you?

A Because I had two reports for March 31st. [2709]

Q I didn't ask you "because". You didn't do it, as a matter of fact, did you?

A I put it down, as I —

Q Can't you answer that question? Did you put it down, is the question, on March 31, according to this report of April 2?

A I didn't put it down specifically, but I have included the total production for the three days.

Q Now, I will read into the record at this point the report of March 31, 1911, as follows:

(Said report so incorporated in the record is reproduced and bound with the Exhibits in accordance with the stipulations and orders of court.)

[2710]

Q Now, did you get any information in regard to the 31st day of March, 1911, from any telegram which was not brought into court?

A. I think not. I don't know whether there was telegrams or not. I could not say.

Q. Now, under date of March, Mr. White, 1911, on this well, in your chart known as Exhibit 173, you have placed no total for any oil whatever, have you?

A. No.

Q. Neither have you for April?

A. No. We had no official report of production.

Q. Did I ask you whether you had any official report of production?

Mr. Lewers: I object to that question as not —

Q. By Mr. Mills: Why is it you try to throw in things, Mr. White, all the time?

Mr. Lewers: I object to that question.

A. You asked me to explain the statement, and I am trying to do it, and I don't want anybody to have any misapprehension of the facts.

Q. By Mr. Mills: Did I ask you to explain anything there? I asked you one simple question, whether you placed any production, for the month of March, at the foot of that column?

A. I think the statement shows for itself that I have not.

Q. Have you any special interest in this case yourself?

A. None whatever.

Q. Will you look at that chart, Exhibit 173, and say whether, under the date of May 9, 1911, you have any showing there, at a depth of 3140 feet, showing oil, as to this well 26?

A. I have nothing there except the fact that the well was drilling.

Q. This chart I understand you to be in part prepared, first, [2711] to show actual monthly production, and also to show the history of the well itself?

A. Yes.

Q. Now, will you examine the report dated May 10, 1911, from Mr. King, for the day of May 9, as to well 26, and state whether it contains any reference to a showing of oil?

A. It refers to a show of oil between — or at 3140 feet in blue shale.

Q Why didn't you place that on your chart, if you wanted a record of the history of the well?

A. I didn't consider it of enough importance.

Q. That is, it tended to show that the well was passing through oil formations, and you didn't consider that of any importance?

A. That had already been in oil formation and that slight showing didn't appear of any great importance.

Q. Now, under date of May 19, 1911, Mr. White,

on Exhibit 173, have you shown any oil sand formation?

A. I have not. It was not my intention to show that. The logs will show that.

Q. Will you read so much of the letter dated May 23, referring to May 19th, upon Section 26, that shows the formation which they passed through?

A. Elk Hills, 26, No. 1, 3575 feet; 3571 feet of 4-½ inch casing. Formation 3575, gumbo. Washing 4-½ inch pipe to clean rotary and from oil sand and anchoring pipe at top of hole."

Q. Was that another thing that you didn't regard as important?

A. That appears in the other exhibit that was introduced.

Q. Was it because you didn't regard it as important that you didn't put it in your graphic history of this well?

A. In making up this statement, it was not my intention to show the formations encountered, except where they were excep-[**2712**] tionally remarkable or exceptionally important. We have made up logs showing the formations and the oil sands, and so on, which were encountered in the well. Therefore I didn't include that detail in this report.

Q. Well, was it due to the fact, also, that you didn't regard it as important?

A. Well, I didn't — I simply set this down in a brief way, and for any further detail you would have to refer to the logs.

Q. You took occasion, in every instance where

there was any trouble in the well, to mark it on this chart, didn't you?

A. Yes.

Q. You didn't regard this as important, though, to put that down on the chart that they were in oil formation at that depth on that date?

A. In a chart of this size you could not put down the detail of the formations and the showings and one thing and another. I put down what I considered the most important features.

Q. Now, will you refer to May 24th, on Exhibit 173 referring to this well, and state whether you have shown under that date a showing of heavy oil?

A. No; I have not.

Q. Will you read, if you please, the report of May 28th, covering the date of May 24th, from Mr King?

A. "Elk Hills, 26, No. 1 3609 feet; 3572 feet 9 inches of 4-½ inch casing. Formation 3580 to 3593 blue shale. Shows heavy oil. 3593 to 3596, compact sand. 3596 to 3609, hard shale and gumbo. 4-½ inch casing landed at 3573 feet in sticky blue shale. Practically all of the formation shows a little oil from 3580 to 3593. Oil seemed to be heavy."

Q. What production does your exhibit show for the month of August, 1911, on this well 26?

A. There is no production shown. [2713]

Q. According to the papers there was an actual production that month, was there not, according to the reports received by your office?

A. There was some production; yes — some oil and water and emulsion.

Q. Now, will you foot up the figures for the month of August, 1912, that appear upon your chart and state what the total is?

A. 422.

Q. Now, I notice that you have endorsed there a showing about 15 per cent water.

A. Yes.

Q. As a matter of fact, the telegraphic reports on each of these days in the month of August, 1912, deduct the water when they send in the report, do they not, as, for example, on August 1st the report shows 27 barrels oil and 3 barrels of water. You might run through all the telegrams after that date there quickly and see if that is not true.

A. I inserted the notation showing about 15 per cent water to show that the oil produced was not entirely commercial oil.

Q. It was not to show, in other words, that there should be 15 per cent deducted from the figures you put down?

A. Not necessarily; no.

Q. Well, then, the amount of oil reported for that month was 422 barrels, as you make it now by the figures?

A. Adding up the daily estimated production would give me 422 barrels.

Q. That is taken from the telegraphic reports themselves?

A. Yes.

Q. And what amount have you placed there at the foot of that column showing actual production?

A. Showing actual monthly production to be 302 barrels. [2714]

Q. Or a difference of how much? About 90 barrels?

A. Difference of 120 barrels.

Q. Then the chart does not correctly give the production, actual production, as shown by the telegraphic reports from the field for the month of August, 1912?

A. The actual production is not shown by the telegraphic reports.

Q. I say, as shown by the telegrams.

A. The telegrams show an estimated production.

Q. Do you find in any one of these telegrams for the month of August the word "estimated" at any place? Just look them through, please.

A. No, I think I will not find the word estimate used.

Q. That is a word you assumed yourself, is it not?

A. It is always customary.

Q. I say, that is a word you inject into the telegrams yourself, by assumption?

A. Yes. That is customarily the case.

Q. So that the chart constituting Defendants' Exhibit 173, for the month of August does not, at the foot of the column, show the production of oil as shown by the telegraphic reports from the field?

A. It does not, and there was no intention of so showing the monthly production.

Q. Now, is there anything on any one of these charts, which are known in this case as Defendants'

Exhibit 172, 173 and 174, to show otherwise then that the column at the foot, which you call "Actual monthly production" in each case was taken from the data which appears after that in the column?

A. It is obvious by glancing up the column that it is not the total.

Q. Well, outside of that discrepancy is there anything to [**2715**] show?

A. It is marked "Actual monthly production."

Q. I have stated that in my question. Is there anything to show that that marked "Actual monthly production" in the figures at the bottom, besides the discrepancy you call my attention to, is taken from anything excepting the data which appears above in each instance?

A. No. That may have been a slight clerical fault in drawing it up; but it is obvious, by glancing over the column, that it would be impossible to add together the production each day as shown in the report.

Q. Then, unless the court took the pains to add up each column and make a mathematical calculation, he would necessarily assume that the footings were the same as the monthly production shown by the date above, would he not?

A. I would not, Mr. Mills. I would not think that ordinarily a person would do that.

Q. Is there anything there to show on these charts that what you have termed the actual monthly production was taken from an entirely different source

from the data which appears in the daily entries above those columns?

A. No; there is nothing to show it in the report.

Whereupon an adjournment was taken until 2 o'clock p.m., at the same place.

On Wednesday, July 9, 1913, at 2 o'clock p.m., the further taking of testimony herein was adjourned pursuant to the adjournment : Willis N. Mills, Special Assistant Attorney-General, and A. I. McCormick, United States Attorney, appearing on behalf of the plaintiff; and Charles R. Lewers, Esq., and Jared How, Esq., appearing on behalf of the defendants.

Mr. Mills: I now object to the offer of defendants of [**2716**] Exhibits 172, 173 and 174, upon the ground that they and each of them constitute neither correct nor accurate summaries of either the production of oil from the wells involved and covered or purported to be covered by the exhibits, nor do they constitute a correct or accurate history of the drilling and operation of the several wells therein involved, as shown by repeated and numerous admissions on the part of the witness, W. E. White, who claims to have prepared them. Moreover, they are misleading, in this, that while the charts purport to portray a daily production, the total of the several months do not agree either with the actual daily production as shown by the daily telegraphic reports from the field, not, indeed, with the erroneously so-called daily estimates as they appear in the several columns of these exhibits. Further, it now appears from the testi-

mony of the witness, W. E. White, that these charts were made up in part from information, data, telegrams and so forth in the custody of the Associated Oil Company or the Southern Pacific Company, not produced for inspection or examination by the government so as to further test their accuracy, and in many instances are admittedly inaccurate, because of alleged mistakes and inadvertencies on the part of the compiler. It further appears from the charts that the total production of the three wells involved in these exhibits was 6,628 barrels of oil, while the actual production during the same period, as shown by the telegraphic reports from the field, was 13,103 barrels of oil. The exhibits are further objected to, upon the grounds that they constitute self-serving declarations on the part of the defendants, alleged to have been made up of data and papers of various sorts always in the custody of the defendants, and many of which, in fact the bulk of which, were written and prepared after the beginning of testimony in this suit.

Q. Now, Mr. White, I will ask you whether the diagramatic logs wihch form Defendants' Exhibits 175, 176 and 177, being alleged log histories of well No. 3 on Section 24, Well No. 1 on [**2717**] Section 26, all in Township 30 South, Range 23 East, and well No. 1 of Section 30 in Township 30 South, 24 East, were ever checked by you from the daily drilling reports?

A. They were.

Q. As to their accuracy?

A. They were; yes sir.

Q. And were prepared, as I understand you to say, by some draftsman directed by you in the office, from the reports, and afterwards checked by you?

A. Yes.

Q. Do you assert that these logs are correct and true pictures of the formations passed through, as shown by the daily drilling reports of the several wells to which they were —

A. To the best of my knowledge they are correct and in accordance with the daily drilling slips.

Q. Were these prepared for the purpose of accurately showing the formations which were passed through by the drill on the several wells to which they refer, or were they prepared for some other purpose?

A. They were prepared for the purpose of showing the formations passed through in the drilling of the different wells involved.

Q. And for no other purpose?

A. Not that I know of.

Q. By Mr. Lewers: Well, it is true, is it not, that they show perforations, and so on?

A. Well, it would show the complete history of the well in graphic style.

Mr. Mills: Well, they purport to show also, Mr. Lewers, some statements as to operations.

Mr. Lewers: Yes; that is true.

Mr. Mills: But I wanted to know what the permanent purpose [2718] of their preparation was. Now, I have found some, in fact quite a number of inaccuracies, in one of the logs, or what I conceive to be in-

accuracies. I didn't have time to examine the other two alleged logs. And I will ask you now whether you prefer either to withdraw these logs upon my statement, to later introduce, if you so desire, a log which you are satisfied is correct, as I understand you to say you have not checked them yourself, or whether you desire to stand on these logs and have us test the accuracy from the daily drilling reports now, or take a recess until tomorrow at 10 o'clock, in the interest of saving time.

Mr. Lewers: I would suggest a still better method, if there is any question about those logs — of course to to any inaccuracies I am not prepared to admit that there are any — that inasmuch as all of the data from the log slips has been introduced in evidence, as soon as a transcript of that data is prepared and in the hands of counsel, that if you still believe there are inaccuracies, that you have prepared either an outline of the inaccuracies that you have reference to or a log from this, and we will then endeavor at a later time to agree upon a log that is in full accord with the well log slips that have been introduced in evidence. That strikes me as a much better method of disposing of this matter, as I have no desire to have anything represented except what is strictly in accordance with the original record that is now in evidence.

Mr. Mills: So far as the government's case goes, we think that that the daily drilling slips, or daily drilling reports, rather, and the telegraphic communications, which have been read into the record, and such other data as were introduced to test the accu-

racy of Exhibits 172, 173 and 174 are sufficient for the government's purpose to establish — or to rebut, rather, — the contention made by the defendants that these lands are non-mineral in character, and we conceive, from our viewpoint, no reason for encumbering the re-[2719]cord with diagramatic logs. But if you still insist on holding these in the record, I should like, before this witness is excused, to test out the accuracy be certain questions which I have.

Mr. Lewers: Then I take it you are not willing to accept my suggestion of attempting to frame or prepare a diagramatic log that will be agreed upon by both sides as being in accord with the well records that have been introduced — the original well records.

Mr. Mills: I should be perfectly willing to do that, upon the grounds of fairness, if I thought it was necessary, as it is a perfectly fair proposition, but I see no necessity for it.

Mr. Lewers: I say, at this time I see no necessity for withdrawing them, because I am satisfied that they are substantially if not entirely correct; and, as time is pressing, I can't consent to a continuance for that purpose, because my arrangements already made for witnesses will prevent that, I am sorry to say.

Mr. Mills: Well, I would just as soon as not examine them here while we have them in court. It will take some time to go through them, because there are so many.

Mr. Lewers: Then I take it you decline to accept my proposition? Is that correct?

Mr. Mills: Well, I decline, only and solely on the ground— not because I regard your proposition as unfair. I think it is fair enough, providing I could see the necessity for introducing any such document.

Mr. Lewers: If you fail to see the necessity, I don't see why it is necessary to take the time to ask any questions about them.

Mr. Mills: Because the logs as introduced — at least one of them I have examined — is wholly inaccurate, according to my conception, after just a casual reading of it.

W. E. WHITE, recalled. CROSS-EXAMINATION resumed.

By Mr. Mills: [2720]

Q. Mr. White, there appears to be no legend on the map showing what these colors represent, unless it may be that there are some marks inside here to show that. I am now examining Defendants' Exhibit 175. I ask you what, at 240 to 250 on this log, does the words "sandy shale" mean.

A. It means that the shale showed a small amount of sandy matter.

Q. At what depth?

A. At that depth.

Q. Now, what does the word "brown" mean at 260?

A. It meant that from 200 to approximately 310 —

Q. 310?

A. — was a brown shale formation.

Q. That is q00 to where?

A. 200 to about 230.

Q. Was brown what?

A. Brown shale.

Q. From 230 to 400, what does the color there represented mean?

A. That was a sand, presumably a blue sand. You understand these wells were drilled by a rotary, in which this is more or less approximate formation. We are unable to tell exactly from one point to another just when you go out of one formation into another.

Q. This was drilled by a rotary, you say, at this point?

A. Well, I would not say as to that depth there, but as a general proposition it was a rotary hole.

Q. You don't know, as a matter of fact, that that was drilled by a rotary, do you?

A. I don't recall now just where they started a rotary in there.

Q. Now, what does the color from 400 to 825 or 820 represent? It appears to be a brown color. [2721]

A. It is a little indistinct, but I believe it is blue shale.

Q. Now, what does the color from 820 to 830 represent?

A. Those depths that we are speaking about are approximations, because we are unable to divide the scale to an exact number of feet.

Q. What does that color mean?

A. It means they ran into the sand.

Q. Now, what does the next color going down the well, which is apparently brown, mean?

A. That means a shale.

Q. From 825 feet to 870?

A. That shows a shale.

Q. Now, what does the next color mean, from 860 to 870?

A. A streak of sand.

Q. What does the next color, from that point down to 950, mean?

A. That is a shale.

Q. What does the next color mean, from 950 to 960?

A. A sand.

Q. And the next brown color, from 960 to 1080?

A. That was reported as a mud.

Q. And what does the small dottedor crossed color mean, at 1080 to 1085, or approximately, represent?

A. That was a shell streak.

Q. We have a brown color extending from there to a depth of 1600 feet, solid. What does that represent?

A. A blue shale.

Q. Then you have, at 1600 to 1605, approximately — what is that?

A. A streak of shale and hard formation.

Q. And brown beyond that. What does that mean? [2722]

A. That would be a shale again.

Q. And then another less figure beyond that. What does that mean?

A. That would be another shell or hard formation.

Q. Then you have a streak of brown. What does that mean?

A. That represents shale.

Q. And then the same figure as before, that you called shell. What does that mean?

A. A shell or hard streak.

Q. Now, from that point, which is 1630 feet to 2080 feet, you have a solid brown color. What does that represent?

A. It represents shale.

Q. What kind of shale?

A. It does not state. It was in some instances hard and some soft.

Q. From 2080 to 2085 what does the legend mean there?

A. A streak of shell or hard formation.

Q. Then the brown color from that point to 2105. What does that mean?

A. That is shale again.

Q. And the next, from 2105 to 2110?

A streak of hard shell.

Q. Then the brown from that point to 2135?

A. That was shale; brown shale.

Q. Now, from 2135 to 2140?

A. A streak of hard sand.

Q. And from that point a solid color in brown down to 2535. What does that represent?

A. That consists of a shale formation with some show of gas.

Q. Brown shale at any point?

A. It is shale; in some instances marked brown and others just shale, hard shale and soft shale. [2723]

Q. Now, from 2535 to 2550 what does the yellow color represent?

A. A streak of hard sand.

Q. And from that point a solid color of brown to 3100 feet. What does that represent?

A. Shale; blue shale.

Q. And from 3100 to approximately 3115, what does that represent?

A. That is a sand, streak of sand.

Q. And from 3115 to 3160, what does that represent?

A. That is shale.

Q. And the next small amount?

A. About five feet of shell.

Q. Now, from that point down to 3245 feet, solid brown color, what does that represent?

A. Shale.

Q. What kind of shale?

A. It is not given.

Q. And then five feet of something else?

A. That is shell.

Q. From that point, which is 3240, a solid brown color, down to 3535, what does that mean?

A. That is blue shale, showing some sand.

Q. Now, five feet of something else represented. What is that?

A. A hard streak; shell.

Q. From that point to the alleged bottom of the well, which is 3885 feet, about, what does that represent?

A. Blue shale.

Q. Now, was it your intention, when you made this log for introduction in evidence in this case, as you have stated on direct examination, to accurately and correctly represent the forma-[**2724**]tions passed through, according to the daily drilling reports?

A. Yes.

Q. Mr. White, where it says, at 320, the word "blue", what does that mean?

A. It referred to the shale.

Q. Blue shale?

A. Yes; that the color was changing more to a blue than a brown. It is very hard to differentiate these.

Q. I understand. From what point to what point does the blue shale extend, according to this diagram?

A. Well, this is not drawn up in sufficient detail to tell you just the exact distance.

Q. Well, what would a man understand that to be? What do you intend that to be, by just examining this alone without reference to anything else?

A. Well, I would understand simply that the lower portion of this brown formation they were in was turning blue. There is no exact number of feet, but that the formation was changing and becoming more of a blue color than a brown.

Q. Now, at what point did it start to begin to

change to blue clay going down, according to this diagram?

A. Well, those things are impossible to tell.

Q. Well, it tells on the daily drilling report, doesn't it?

A. Well, that is a good deal of guesswork, anyway.

Q. Well, doesn't the daily drilling report for each crew, each driller on each tower, show the change of formation on the daily drilling report?

A. That is a good deal according to the idea of the driller.

Q. Well, doesn't it, in this particular case, on the drilling reports which have been brought into court supporting the accuracy of this log, or intended to support it?

A. No; I don't think it is drawn down that fine. [2725]

Q. Doesn't the daily drilling report show at each point where the formation changes?

Mr. Lewers: You have a right to look at the report, if you desire. (Witness examines report.)

A. They are supposed to show —

Q. By Mr. Mills: I didn't ask you what they were supposed to show. I asked you if they don't show.

A. Yes; they show the supposed changes in formation.

Q. All right. Now, you have stated that the formation from 200 to 230 was brown sandy shale. I will ask you to examine the daily drilling report for

this well for July 29th, 1910, and ask you to read the statement of formation.

A. From 200 to 290, brown sandy shale; from 290 to 310, blue sandy shale.

Q. Now, you have not shown any change there at the point where the daily report shows it, have you accurately?

A. We haven't gone into detail and shown at just what point it changed from brown to blue, so that is inconsequential.

Q. No. That is, you substituted your judgment for the report itself, and held that it was inconsequential and therefore didn't make any distinction?

A. No, Mr. Mills. I have taken practically a thousand slips here to make up one sheet, and you can see yourself it would be impractical to put all those figures and the data on a sheet of that size; it would mix it up so it would be of no value.

Q. Couldn't you show very easily, on 100 feet of formation, what it was, where it began to change, in what 10 feet it changed?

A. Practically we don't consider —

Q. I didn't ask you what you considered. I asked you if you could not, mechanitclly, do such a thing as that — show the change in every 10 feet.

A. Oh, there is nothing impossible; but it is impractical. [2726]

Q. That is, you substitute your judgment as to whether it is proper or not, for what the report shows?

A. I have tried to make a diagram that is comprehensive.

Q. Now, it is perfectly possible, mechanically, for you to have placed the changes of formation on the point they occurred, within 10 feet of that place, is it not?

A. Possibly, yes.

Q. Now, I ask you to read the formation on the daily drilling report of this well for August 2, 1910.

A. "From 290 to 330, blue sand shale; from 330 to 360, blue sand."

Q. Now, you have stated that from 230 to 244 was blue sand. Why didn't you give the correct formation there on this diagram?

A. I think it shows correctly there, if that is the case.

Q. You do think so?

A. I think this 230 to approximately 400 feet is blue sand.

Q. This is 290, this formation is; from 290 to 330, blue sandy shale.

A. Well, I have shown that as blue shale.

Q. And then the daily report shows 334 to 360, blue sand. The driller makes a distinction but you have not, have you?

A. Yes.

Q. Whereabouts?

A. From 230 on that runs on another date, but you will see I have shown during that period, "blue sand".

Q. You say from 230?

A. From 230.

Q. Now, as a matter of fact, the report of the driller shows, does it not, that from 200 to 290 it was brown sandy shale? Please examine that and see.

A. I have also shown it that way.

Q. How do you now claim that from 230 on it is blue sandy [**2727**] shale, when the report says brown sandy shale?

A. You are talking about 330.

Q. Well, I understand. But from 290 on.

A. From 290 to 310 this report states is blue sandy shale. That is noted here as blue shale.

Q. You don't make any distinction between blue shale and blue sandy shale, do you?

A. There is none.

Q. Yet the driller thought there was one. I will ask you, Mr White, to give me the formation on the daily drilling report, of August 4th, 1910, on this well, as appears from the report itself.

A. From 410 to 435, clay.

Q. You state, however, that from 400 to 820 it is blue shale. Do you make any distinction between clay and blue shale?

A. There is no distinction, in the drilling of a well, to my notion, between blue clay and blue shale. One may be a little harder than the other. That is the only difference.

Q. Yet you have had no experience in drilling wells, never had charge of drilling operations, you stated this morning, and you are willing to substitute your own judgment, in making up this log as a faith-

ful picture of the formations, for the actual drilling reports of the drillers themselves?

A. We make up hundreds of these logs in the same way all the time, and that is the general practice, to disregard the differentiating between hard and soft clays and blue clay and blue shale. There is no possible way of determining the difference in the ground.

Q. Without going further, at this point may I ask you whether this entire log disregards, in the same way, the statements made by the drillers as to the points at which the formations change?

Mr. Lewers: I submit that is not a fair question. [2728]

Mr. Mills: It is based on what the witness has already said.

Mr. Lewers: The witness has said —

Mr. Mills: I object to your coaching the witness.

Mr. Lewers: I am not. I am objecting to your attempt to impose upon the witness.

Mr. Mills: I am not imposing on the witness.

Mr. Lewers: I know you are not; but you are trying to.

Mr. Mills: I am taking the facts as shown by the drillers' reports, from which he says he made this log.

Q. And I again ask you whether you ignored, from time to time, all through the log, the changes from one formation to another? —simply to shorten this examination. If you say so, I will stop it.

A. We don't consider a change of formation a difference in color.

Q. I am not talking about the difference in color. I am talking about the statement you make on that log itself to indicate changes. Have you ignored, from time to time, all through the log, the drillers' reports upon the changes of formation?

A. Certainly not.

Q. You have not?

A. No. If I had, I could not have drawn up the log.

Q. Didn't you just state a little while ago that you had ignored certain things?

A. I stated that I hadn't gone into detail to put down the exact number of feet where these inconsequential changes took place.

Q. Are you a geologist yourself, Mr. White?

A. No.

Q. Or mineralogist?

A. No.

Q. And you are not a practical oil driller?

A. No. [2729]

Q. And have never had charge of practical operations of drilling for oil?

A. No. But I have spent ten years around oil wells.

Q. That is, you have been scouting for lands for the Crude Oil Company and the Associated Oil Company?

A. Not entirely.

Q. Now, will you take this slip, please, Mr. White, of date August 9, 1910, on this well?

A. I would like to add the statement that this log

was also drawn up under the supervision of Mr. W. A. Williams, our chief geologist — himself and myself — at my instigation.

Q. Do you know Mr. F. M. Anderson?

A. Yes.

Q. Did Mr. Anderson collaborate at all upon the construction of the log?

A. No.

Q. Or advise in any way about it?

A. He had nothing whatever to do with it, so far as I know.

Q. Mr. Williams understood what the log was intended to show, that is, the formations it passed through, and so forth?

A. Yes.

Q. And, with you, understood the purpose of making it, namely, to use it for any litigation which the company might have affecting these lands, particularly this litigation?

A. Yes.

Q. Kindly read the slip of August 9th, 1910, for this well.

A. From 490 feet to 508 feet, blue clay.

Q. Have you shown that on this log at any point?

A. I have shown it as blue shale, which is the same thing.

Q. That is, blue shale and blue clay are the same?

A. I believe they are, in the drilling of a well.

Q. Now, did you yourself have the say about showing the [**2730**] legend as to the formations passed

through, Mr. White, or was it largely controlled by Mr. Williams?

A. Well, it was made up from data which we had already prepared in Mr. Williams' office. He took that and checked it with the logs. He already had a similar log prepared, but we took that and checked it over and made a separate new tracing.

Q. That is, when Mr. Williams came in he had a log with all these colors blocked out?

A. That is it.

Q. And then you checked it and made another blueprint? Is that the idea?

A. Yes sir.

Q. So that, in fact, this was prepared by Mr. Williams before you ever saw it — that is, the tracing from which this blueprint was made?

A. Well, he had a rough log,—it was not exactly in that shape — but we made a tracing from that rough drawing.

Q. Yes, but I mean it was, as to the depths to which these colors were blocked?

A. Yes; I remember it was similar.

Q. So that, in fact, the log was prepared by Mr. Williams, in the first place, then brought over to you and checked with you, as I understand it?

A. Well, we really prepared a new log, checking with his old logs.

Q. Well, did he have more than one log to make this blueprint that I am now examining?

A. He had one office log that he keeps up, you know.

Q. Yes. So when you say "logs", you refer to —

A. These graphic logs.

Q. But you don't refer to the several logs which formed the basis of this log? [2731]

A. No.

Q. He had one log on which he blocked out the colors at the proper formations, and with the writing to the side at the depths indicated here, and from that you framed the tracing of which this is a blueprint, after checking it?

A. That was the idea.

Q. With the daily reports? Is that right?

A. As I remember it, that was about the proceeding.

Q. Now, did Mr. Williams' judgment supersede yours, on places where the drilling reports differed from the information apparently given on this log, or did your judgment prevail?

A. Well, I checked over the logs, and I don't know whether we discovered any discrepancies or not, now, or made any changes, but as a general thing our opinions coincided.

Q. Did you, for instance, where a daily report says "blue clay" for a certain depth — whose judgment was it that changed it to "blue shale", or was it already "blue shale" when you got it?

A. In making up these logs it is the general custom —

Q. Now, I don't ask for any explanation. I am asking about the fact.

A. It is the custom to classify, in the office at least, clays and shales under the one general formation.

Q. Now, I didn't ask you about the custom, did I?

A. No; but I am trying to explain myself.

Q. Well, you can answer and then explain. Nobody will bar you from an explanation. I don't think this witness is concerned in making any misrepresentations at all. If I fail in courtesy, it is not because my heart is not right.

A. I don't want to give false impressions or get anything into the record that don't convey my idea.

Q. I understand the log was practically made up by Mr. Williams, or in his office, and then was checked, and the tracing [**2732**] made and this blueprint made from that. Is that correct?

A. That is about the proceeding, as I remember.

Q. And when you say that log which he had, and which you checked, did it contain all these writings at the exact place where they now appear on this blueprint?

A. I couldn't say as to that. We made some changes which in checking it over we found some discrepancies that were corrected.

Q. But, in this particular instance, where from 520 feet to 575 feet, on August 13, where the daily drilling report gives "blue clay" and this log does not show it but calls it "blue shale" — was that on the log which Mr. Williams brought in, or was that one of the changes that was made?

A. I can't remember the detail of the thing now. It is our practice, though, to classify shales and clays

under the same coloring, in coloring a thing of that kind.

Q. You don't pretend to know, yourself, that a blue shale and blue clay is exactly the same, do you?

A. To my knowledge they are practically the same. One might be a little harder than the other. That is about the only difference.

Q. Did you make any distinction between blue shale and blue sandy shale?

A. Sometimes I have shown that they had sandy streaks in there.

Q. Now, I call your attention to the daily drilling report of this well, on August 12, 1910, and ask you to read the formation.

A. From 508 to 520, blue sandy shale; from 520 to (blank) hard shale.

Q. Now, I will ask you to examine the log and see if you have indicated that on the log.

A. I have simply shown blue shale.

Q. That is, you failed to show the change from blue and sandy shale to hard shale, as indicated in the daily drilling report?

A. I have not qualified it. I have simply put it in as blue [**2733**] shale.

Q. Well, to get it affirmatively upon the record, the daily drilling report's statement of the change from blue sandy shale to hard shale does not appear upon the log, does it?

A. No, there is no definite point shown on the log.

Q. Now, why does not that appear on the log?

A. Well, because it was considered of very little importance.

Q. By you or by Mr. Williams?

A. By myself; and he coincided in the idea, I believe.

Q. There was no clash of distinguished opinion there?

A. No.

Q. The last drilling report of August 12, 1910, as you read it, gives the formation from 520 feet to (blank) feet, hard shale. Now, will you read the report of August 13, 1910, on the formation?

A. From 520 to 575, blue clay.

Q. Now, does the log which was introduced in your evidence, on this well, show that change to blue clay?

A. It does not show it in detail.

Q. Will you examine these daily drilling reports and state where the formation changes from blue clay to something else — at what point?

A. At 590 feet.

Q. It changes to what?

A. It is shown here as blue sandy shale.

Q. Now, how far does that blue sandy shale run, according to those daily drilling reports?

A. To 650.

Q. Then it changes, according to the report, to what?

A. To blue clay.

Q. Will you examine your log known as Exhibit

175 and see if that is indicated there in any way — those changes?

A. It is classified here as blue shale without any distinction. [2734]

Q. On the log?

A. On the graphic log.

Q. Will you examine this drilling report of August 18 and give the formations there where they change?

A. It changes at 695 from blue clay to blue sandy shale.

Q. And what does the graphic log show at that point?

A. All shown under the classification of blue shale.

Q. You made no distinction, then, between blue clay, blue sandy shale, and blue shale?

A. No.

Q. Did you have these drilling reports before you when you checked it?

A. Yes.

Q. That is, these reports I am showing you now?

A. Yes.

Q. Now, I call your attention to the daily drilling report of August 21, and ask you whether there is any change shown of formation there which does not appear upon this graphic log?

A. The drilling report shows a change from blue sandy shale to blue clay at 750 feet. I have grouped that under the title of blue shale, on the graphic log.

Q. That is, you made no distinction in that case either?

A. No.

Q. Now, will you examine these three daily drilling reports I hand you, and state where the change is made from blue clay to something else?

A. One shows a change at 750 from blue sandy shale to blue clay. The next report shows blue clay to 780 feet. The next report shows from 780 to 790, blue sandy shale. 790 to 815, blue shale.

Q. Are any of those changes indicated on this log known as Defendants' Exhibit 175. [**2735**]

A. They are all included under the term "blue shale".

Q. The question is, are any of those changes shown on that log?

Mr. Lewers: I submit the answer is responsive.

Q. By Mr. Mills: Now, I show you daily drilling report of this well of August 24. Will you read the formation?

A. 815 to 825, blue shale; 825 to 830, hard sand rock; 830 to 835 blue clay.

Q. Will you examine the log for those depths and tell me whether you have indicated those changes in formation?

A. I have shown the blue shale and the 5 feet hard shell or sand rock, as it is called here, and then have shown the balance of this report under the term "shale", on the graphic log.

Q. Whereas, in the report it is known as blue shale, is it not?

A. It says blue clay

Q. Blue clay?

A. Yes.

Q. You call it shale now.

A. It is grouped under the term "shale" here.

Q. Moreover, from 825 to 830, what you call sand on the graphic log appears in the daily drilling log as hard sand rock? Is not that true?

A. Yes; but, as I said before, I could not carry these things out in any great detail on a sheet of this size.

Q. Now, why did you not indicate on the log, from 825 to 830 "hard sand rock", instead of putting down "sand", as you did?

A. Simply an abbreviation to — I believed it would convey the same meaning.

Q. That is, you call "hard sand rock", indiscriminately, "sand and rock"?

A. I call "hard sand rock" "sand", or "sand rock". [2736]

Q. You don't make any distinction between "rock" and "sand"?

A. I have not there.

Q. No. Now, you did not, also, indicate on this log a change of blue clay, did you, at 835 feet?

A. I have grouped that, again, under the term "shale."

Q. And the words "blue clay" do not appear on the log at that point, do they?

A. No.

Q. Look at this drilling report for August 25, 1910, will you, and give its formation?

A. "835 to 840, blue clay"; "840 to 850, blue sandy shale."

Q. Now, what have you on your graphic log, from 835 to 840, which on the drilling report shows "blue clay"? What do you state it on the log?

A. That has been included under the term "shale".

Q. And where, on the drilling report, from 840 to 850, it appears to be "blue sandy shale", what have you called it on the log?

A. Simply called it "shale".

Q. Now, the word "shale", as you call it, runs from what point to what other point in the depth?

A. From approximately 830 to about 870.

Q. So that you don't even on the log, show the place where the blue sandy shale stops and starts at something else, do you, within 30 feet?

A. I have included both the blue sandy shale and shale under the one term "shale" without any distinction as to just what point the change took place, if you would call it a change.

Q. That is, it didn't make much material difference to you and Mr. Williams, in making this log up, to indicate within 30 or 40 feet of where a formation changes?

A. Oh, yes, it did. It is not considered a change of forma-[2737]tion, entirely, to change from a clay to a shale. The graduation is such that there is no dividing point, no dividing line.

Q. Will you read the formation, please, on the daily drilling report for August 26th, 1910, from 875 feet to 880?

A. From 875 to 880 is a hard sand rock.

Q. Now, you have not shown that, have you, as hard sand rock, on your diagramatic log?

A. I have shown that as sand.

Q. At what point?

A. From about 875 to 880.

Q. You call it sand?

A. Sand.

Q. And the daily drilling report calls it hard sand rock? Is that correct?

A. That is correct.

Q. Now, don't you, as an oil man, make any distinction between that which is hard sand rock and that which you call sand?

A. Not for the purpose of — in making up a log of this kind.

Q. Suppose you ran into a hundred feet of oil sand, would you call it hard sand rock?

A. In that case we would call it oil sand.

Q. Do always call it oil sand in these logs?

A. We do if it contains oil, if it is an oil sand.

Q. You say you do, if it contains oil, call it oil sand?

A. Yes.

Q. Show me on this Exhibit 175 where you have designated oil sand as oil sand.

A. We haven't shown any —

Q. Have you completed your answer, Mr. White?

A. Not yet. There is no oil sand designated on the log.

Q. And yet the daily drilling reports show great depths of [2738] oil sands on this oil well, do they not?

Mr. Lewers: I object to that as not a fair statement. If you will produce the drilling reports showing any oil sand, to support your question, that is another matter; but I don't think you have a right to ask the question assuming something which is not in evidence.

Mr. Mills: I am now cross-examining the chief clerk to the chief engineer of the Associated Oil Company, and who, moreover, has confessedly admitted that he examined these daily drilling reports for the purpose of incorporating them in this diagramatic log, and which form the basis of the information, as he stated on direct examination, contained in this log, which is introduced for the benefit of the court.

Mr. Lewers: If you can find in those drilling reports anything showing oil sand, call his attention to it.

Mr. Mills: Read the question. (Previous question read by Special Examiner.)

A. I think not. Not to my knowledge.

Q. Do you now say, on your oath, that there are no oil sands shown in well No. 3 of Section 24, that we have been examining, in the daily drilling reports?

A. I have not come across any.

Q. You have not come across any?

A. I have not seen any.

Q. What do you call the formation in which the oil appears in this well?

A. You mean as to what period geologically?

A. No; I mean how would you describe it? Would you call it "shale" or "sand" or "rock"?

A. My personal opinion is that the oil is coming from the shale, possibly.

Q. Yes. [2739]

A. To some extent, at least.

Q. Now, where the drilling reports say "sand showing a little oil", do you call that an oil sand?

A. It is possibly a small streak.

Q. You would call that an oil sand, wouldn't you?

Mr. Lewers: Will you produce some such drilling report, rather than assume that it is in evidence? I think it would be an interesting thing if you did. If there are any, it is only fair to the witness you should produce them, because out of several thousand you cannot expect him to remember the details of every one of them.

(Last question read by Special Examiner.)

A. Is that related to this well?

Q. By Mr. Mills: Generally.

A. As a generality?

Q. Yes.

A. If oil was discovered as you were going through the sand, I would say that is very likely an oil sand, or a streak of oil sand.

Q. Well, "very likely". Wouldn't you term it so, in your business?

A. Yes.

Q. As a matter of terminology?

A. Yes.

Q. You would call it an oil sand, wouldn't you?

A. Yes, if it showed any quantity of oil.

Q. Well, suppose it showed a trace of oil, would you call it an oil sand?

A. It would depend on the condition of the well — whether you thought the oil was coming from that sand or from the shale above.

Q. Well, assuming that you thought it came from that sand, [**2740**] and there was a trace of oil, would you call that an oil sand?

A. That answers itself — if you assume it was an oil sand you would certainly call it an oil sand.

Q. I show you three drilling reports, dated, respectively, August 27, 28 and 29, 1910, and will ask you at what depths on these reports blue clay appears.

A. "880 to 900, blue clay; 900 to 920, blue clay; 920 to 930, blue sandy shale; 930 to 940, blue clay."

Q. Does this log indicate those changes at those points? I will withdraw that question. I will ask you to read, for those depths, what appears upon the log, Defendants' Exhibit 175.

A. They are classed under the term "shale" on the graphic log.

Q. And any distinction made as on the daily reports?

A. No.

Q. Will you read, on the log, please, what appears between the depths 960 and 1080, on Defendants' Exhibit 175?

A. 960 to 1080?

Q. Yes.

A. It is shown here as "mud".

Q. All right. Now, I hand you reports for August 31, September 1, Sepcember 2, September 3, 4, 5 and 6, which cover the depth from 960 to 1080 feet, and will ask you what formations they show.

A. In detail?

Q. Yes.

A. "960 to 975, blue clay; 975 to 990, blue mud; 990 to 995, blue mud; 995 to 1000 feet, blue clay; 1000 to 1015, blue mud; 1015 to 1020, blue clay; 1020 to 1035, blue mud; 1035 to 1065, blue clay; 1065 to 1080, blue clay."

Q. So that the distinctions made in the daily drilling reports were not carried out on the log which you prepared of this [**2741**] well between those depths?

A. Well, blue clay and blue mud are the same thing — in the drilling of a well, at least.

Q. That is, you made no distinction whatever between blue clay and blue mud, on the log?

A. No. The depths shown there, also, I would like to explain, is the amount of formation penetrated for the day. It is not always a case of distinction between one report and the other.

Q. The driller, however, notes the change from one formation to another, does he not, and reports it daily?

A. He has shown it on his daily reports both ways — clay and mud.

Q. Well, the question is whether he does not note the change on the daily reports, and the depth.

A. He has set it down in different ways, you might say.

Q. Well, does he note the change at different depths, as he goes along, on the daily reports?

A. Yes.

Q. And they are so reported to your office, or to the Associated Oil Company?

A. Yes. In explanation of that I might say there is nothing comes out of a hole but mud. It is all prepared in the form of mud.

Q. But they are able to detect the changes as they go through, as I understand it? Is that correct?

A. Oh, yes. They should be.

Q. Now, in every case, as I understand it, where blue clay, blue mud, blue shale appears on the daily drilling report, you use it indiscriminately as shale or blue shale.

A. Where a number of those minor changes occur in one group—

Q. Can't you answer that question without an explanation?

A. I couldn't say that in every case I have done that.

Q. Well, have you in any case, or in substantially most of [**2742**] the cases?

A. In many cases I have grouped the consecutive stratas of clay and shale and mud under the one term "shale."

Q. Or "blue shale?"

A. Or "blue shale"; whatever the color might be, the general color. It is impossible to go into details on a log of that character.

Q. You say "It is impossible to go into details." Couldn't a log be made showing the change every 10 feet?

A. It could be; but I made this up —

Q. Couldn't it be made, as a physical fact, every 10 feet?

A. Yes; but it wouldn't be practical.

Q. It would take a longer time, you mean, to do it?

A. It would —

Q. I am not asking for an explanation. I am asking if you could not, mechanically, do it, on this log.

Mr. Lewers: Mr. White is entitled to give his judgment and explanation.

Mr. Mills: He is not entitled to give any explanation until he answers the question.

Mr. Lewers: You are entitled to answer in your own way. You are the witness, and not Mr. Mills.

A. It could be done, of course, but it wouldn't be of any practical use, any benefit. It would serve to confuse you rather than aid you.

Mr. Mills: I move that the answer be stricken, in so far as it is a voluntary statement not responsive to the question. I am not asking your judgment upon any matter at all.

The Witness: It is not a matter of judgment at all. It is a matter of common sense.

Q. By Mr. Mills: Do you see any distinction be-

tween blue shale and blue sandy shale, in the history of a well? [2743]

A. Oh, there may be some slight difference, but in the drilling of a well it is practically impossible to differentiate the shale from sandy shale. It is simply a matter of the driller's own personal judgment in the matter.

Q. There is a distinction, however, isn't there, between blue shale and blue sandy shale?

A. Not of any great consequence.

Q. I didn't ask you about whether there was any consequence pertaining to it or not. That is a matter for the court and for argument. I ask you whether or not there is a distinction that is easily distinguishable.

A. Not in the drilling of a well, that I know of.

Q. I didn't ask you about the drilling of a well. I asked you if there was not a distinction between blue sandy shale and blue shale. You don't know anything about the drilling of a well, you say. I am askiing you if there is a distinction between blue shale and blue sandy shale.

Mr. Lewers: The witness didn't say he didn't know anything about the drilling of a well. That is a mere voluntary statement of counsel, and I ask it to be stricken, as improper.

Q. By Mr. Mills: Answer the question.

A. I don't consider that there is any difference between —or, that you can tell the difference, underground, between sandy shale and shale at that depth.

Q. That is, if the driller found a distinction and

reported it, you would overrule him because he was unable to do it, you having had no experience in drilling, and he perhaps an experieenced man — you would arbitrarily overrule it?

A. I would not consider it of any consequence.

Q. And in making up the log you would make no distinction between them, would you?

A. It would serve no purpose to make any distinction, that [**2744**] I can see.

Q I say, you would not make any distinction, would you, in making up a log?

A No; not in making up a practical working log, I would not differentiate.

Q. I didn't ask you about a practical working log. I say, in making up a log would you make any distinction between blue shale and blue sandy shale?

Mr Lewers — I assume you want something other than a practical working log, then, Mr Mills?

A In drawing up logs such as we are accustomed to drawing up, I would disregard that.

Q By Mr Mills — Notwithstanding that the driller would report the change, you would still disregard it?

A. Yes.

Q Would you make any distinction between blue shale, or what you would call blue sandy shale, and blue clay, in making up a log?

A In making up a log that was drilled with standard tools, I would.

Q Why would you?

A Because it would show a difference in the formation.

Q Well, why would that difference be shown on a log?

A There would be no practical use in doing so, but it might be just as well to show the dividing line.

Q That is, there is no reason for doing it, yet you would do it?

A I would do it because I would follow the reports.

Q Yes; but in making up a log for the purpose of evidence in a case, which ordinarily ought to be strictly according to the daily drilling reports, you would disregard it and not put it in, where it is to be submitted to the court for inspection? Is that what you mean? [2745]

A. Well, where it would occur in small streaks, as it is in this particular case, you would simply encumber the log unnecessarily to differentiate the different stratas of alternate layers of clay and shale.

Q. Well, do you call a streak of 15 feet a small streak

A. Comparatively, yes, in a well of this depth.

Q. You would call nearly 500 feet a small streak?

A. 500 feet of clay?

Q. 500 feet of formation, the same formation.

A. No; I do not.

Q. Then you would make a distinction in a case of nearly 500 feet, would you?

A. Well, I would if it was near the bottom, or near the oil formation, where it would be of more impor-

tance than the top of the well, or the surface formations, comparatively.

Q. You made no distinction, however, from a distance of 1058 to 1600 feet, or 515 feet, in this particular log, did you? Examine it and see.

A. No; I classed that as blue shale.

Q. And yet the drilling reports for that depth repeatedly change from blue clay to blue shale and blue sandy shale.

A. That is what I was explaining,—that there are so many changes that it would simply unnecessarily encumber the log.

Q. In making this log, in order to dissolve all unimportant details away, why didn't you block this out in one color and call it "Blie sandy shale" from where the surface ends to 3880 feet?

A. Because there were different characteristics in the formation, that I have noted there, that I found noted.

Q. Well but if they are so unimportant why didn't you just call it all "blue sandy shale" and be done with it, the same as you did therefor a distance of 515 feet, when the daily drilling reports show repeated changes and different formations? [2746]

A. Well, there would be no reason to differentiate between the alternate layers and small stratas and so on. In sandy shal and shale. There is no change of formation, as we consider it.

Q. But the real purpose of the log, Mr. White, as you say, was to show these changes of formation, wasn't it?

A. Well, we didn't consider that a change of formation. Going from a blue shale to a blue sandy shale — we don't consider that a change.

Q. That is, for 515 feet, where the driller reported he passed through blue clay, yoi are willing to call it "shale", "blue shale", because you don't see any importance in showing the difference in formation in this log? Is that correct?

A. No, that is not correct. I can see good reasons for showing important change in formation; but such changes as you spoke of as from blue clay to blue mud, and such foolishness, as I would call it, as that, should not be set down in a log of this character.

Q. Do you think it is "foolishness" to indicate a change, on a log, from blue sandy shale to blue clay?

A. No; the change I am speaking about is a change from blue clay to blue mud.

Q. Well, I am talking about blue mud. I am talking about blue sandy shale to blue clay. You regard that as an important change, fon't you?

A. Not necessarily.

Q. Well, you say, "not necessarily". Is it ever an important change?

A. No; I think not.

Q. Never is?

A. Not that I know of, in a wekk of this depth, or at that depth. It is simply a difference between hardness.

Q. Did you discuss that matter with Mr. Williams? You mean by "Mr. Williams", Mr. W. A. Williams? [2747]

A Yes.

Q Did you discuss the matter with him as to whether you would put down this 515 feet as blue shale or blue clay?

A No; I think not. We had in mind at the time of going into great detail in making up the log, and then decided it would be better not to encumber the log with a lot of unnecessary or small detail.

Q So that the log, as it stands here, does not faithfully show in detail the changes which the daily reports show?

A It shows the changes in a practical way; only changes of moment.

Q Does it it show in detail the changes which occurred in the daily reports?

Mr Lewers — I submit the log speaks for itself. That question has been asked in twenty different forms, and answered as many different times.

A It shows what I understand to be changes.

Q By Mr Mills — I ask you if it shows in detail the several changes which appear in the daily reports.

A It does not show in minute detail the several what you understand to be changes in the formation.

Q And what are termed changes in the formation in the daily reports?

A It does not go into detail as to — into minute detail as regards the changes from hard shale to soft shale and mud and clay, and so on.

Q As shown in the daily reports?

A In the instance in question.

Q And that is true as to all the reports for the whole depth of the well, is it not?

A No; I would not say that. I could not tell you, without checking it up with the logs themselves. [2748]

Q I say, generally.

A Generally, where alternate layers of shale formation are mixed with clay, or sandy shale, it has been termed "shale" or "blue shale", or "brown shale", as the case may be.

Q Do you regard clay and boulders as blue shale or shale? Now, can you answer that by yes or no, without a long explanation?

Mr Lewers — Mr White, you are entitled to answer that in your own way, without regard to Mr Mills' attempt to direct you to give the answer in his way.

A Clay and boulders as reported in rotary drilling — it is hard to tell just what it is.

Q By Mr Mills — Did I ask you that question, whether it was hard to tell what it was? Didn't I ask you whether you regarded clay and boulders as blue shale?

A Not necessarily.

Q Do you see any distinction between a boulder and blue shale?

A Yes.

Q You do.

Mr Lewers — What kind of a boulder are you referring to, Mr Mills?

Mr Mills — The kind of boulders they found in this

blue shale, what they call blue shale. That is what I am referring to.

Mr Lewers — That is not a boulder.

Q By Mr Mills — I call your attention to daily drilling report of April 10, 1911. I will ask you to read the formation that the driller reported passing through, in this well.

A "1560 to 1570, blue clay; 1570 to 1579, clay and boulders".

Q Will you examine this abortion, called a graphic log, [**2749**] and state whether or not you have indicated that change from 1570 to 1579 of clay and boulders?

Mr Lewers — Can't you examine the witness without using language that is offensive not only to the witness but to the court?

Q By Mr Mills — Did you make any distinction, at the depths indicated, from 1570 to 1579, where the clay and boulders were shown by the driller?

A I have not included any boulders. I have included the boulders under the general term "blue shale".

Q So that where it says "clay and boulders" you call it "blue shale", on the log?

A Yes. That, for practical working purposes, is, I think, correct.

Q Well, did it occur to you or Mr Williams that there might be some possible geological importance to that?

A We didn't consider it so, because they were

drilling with a rotary, and they didn't know what formation they were in themselves.

Q How do you know? Were you there?

A No; but it is impossible to tell, in drilling by the rotary method, just what formation they are in at any certain time.

Q Then what is the use of carrying out these formations at all — simply call it all "blue shale"?

A Unless they strike something such as an oil sand, or something of the kind.

Q Do you think a competent driller would know when he struck a boulder and passed from blue clay into a boulder?

A Yes.

Q Even with a rotary he would know that, wouldn't he?

A He might and he might not. The boulders encountered in [**2750**] many of these cases are shells instead of boulders as we understand it.

Q Now, I call your attention to a drilling report on this well, dated April 12th. I will ask you to read the formation the driller reported.

A "1582 to 1600, clay and boulders; 1600 to 1602, shell; 1602 to 1604, clay and boulders.

Q Will you examine your literary effort, there, and state whether you have noted those changes on that graphic log?.

A No; they are not noted in detail on the graphic log.

Q What are they noted as on the log

A They are included in the term "blue shale".

Q Mr White, I hand you the report for April 13th, 1911, on this well, and ask you to read the formation the driller reported.

A "1604 to 1610, clay and boulders; 1610 to 1611, shell."

Q Have you noted those changes on the log?

A I have shown a shell from 1600 to 1605.

Q And that is wholly incorrect, according to the report, is it not?

A That would be on the day's report preceding this. This report runs from 1604 to 1610, clay and boulders. That being such a small strata there is no room to insert the formation, although we have it colored on the log to represent the general shale formation. And from 1610 to 1611 is a shell, which I have shown on the log in question as a shell.

Q Have you shown the clay and boulders there, from 1604 to 1610?

A I have answered that. That is a small streak in there, for which we had no space to write in the clay and boulders, or the name of the formation, although we have shown it in the general shale coloring on the log. [2751]

Q If you had had room there you would have put it in?

A Well, we would put in whatever classification we would put it under; yes.

Q Now, you had plenty of room up here, between the depths 1085 to 1600, to write in "clay and boulders", didn't you, at least in a hundred different places?

A Yes; but this was a change.

Q But you didn't write it in, did you?

A No; in this instance it was a change from a shell to a shale.

Q Couldn't you have carried it out on the margin to show it, if it was important?

A Instead of writing it out, we have included it in our coloring or legend of colors, for a shale formation.

Q That is, "clay and boulders" is a shale formation?

A Yes, in this particular instance.

Q But there is nothing on this log at that point to show that it is anything but shale? In fact, the log itself shows, according to your own statement, that it is shale, instead of clay and boulders? Is not that true?

A It is included under the general term —

Q Well, is not that true? Is there anything unfair about that question?

Mr Lewers — I submit he has answered it.

A It is included under the same color as shale.

Q By Mr Mills — Well, what I mean to say is this, that the log, at this particular point where the clay and boulders occur, between 1604 and 1610, would indicate that it was shale?

A Yes.

Q And not show clay and boulders? Is not that true?

A That is true.

Q In that respect, it is misleading, as to the exact forma-[**2752**]tion, then?

A Possibly; but it is such a small strata that it would be impractical to go into detail in that particular case.

Q It would be perfectly easy to carry that out on the margin of this log, would it not?

A All that detail could have been put in there, Mr Mills, if it was necessary.

Whereupon the further taking of testimony herein was adjourned until Thursday, July 10, 1913, at 10 o'clock A. M., at the same place.

On Thursday, July 10, 1913, at 10 o'clock A. M., the further taking of testimony herein was resumed pursuant to the adjournment:

W. E. WHITE

recalled, CROSS-EXAMINATION resumed.

By Mr Mills:

Q Will you examine Defendants' Exhibit 175 and state what you have shown there for a depth from 1611 to 1612 feet?

A A shell.

Q Now, what have you shown from 1612 to 1613 feet?

A That 1 foot is shown as a shell here.

Q Well, which 1 foot — from what depth to what depth?

A From 1612 to 1613.

Q That is, you make no distinction between 1611 to 1612, and 1612 to 1613?

A Well, there is such a small scale here I can't make out just what the figures are.

Q Well, whatever it is there, what formation do you call it on that log? [2753]

A I have shown it as a hard streak or hard shell.

Q Now, will you read the drilling report for the date April 14, 1911, of the formation between 1611 to 1612?

A 1611 to 1612, shell.

Q Now, I show you drilling report for the 15th day of April, from 1612 to 1613. What is that?

A 1612 to 1613, rock.

Q Your log does not show that the formation passed from shell into rock at that point, does it?

A Shell and rock are the same thing.

Q I say, your log does not show that the formation passed from shell into rock at that point, does it?

Mr Lewers — I submit the answer is responsive.

A Whenever strata of that kind, in a log drawn to that scale —

Q By Mr Mills — Did I ask you anything about strata of that kind? Have you any particular interest in evading a plain question?

A I am not intending to evade anything. I am trying to explain to you.

Q Then why don't you answer a simple question? Why do you constantly evade answering a simple, direct question?

Mr Lewers — I submit the witness has not done so. If counsel is trying to put words into the witness's mouth which will not represent the actual facts, the

witness has a right to explain, as he is responsible, on his oath, for his own testimony, and not Mr Mills.

Q By Mr Mills — Now, Mr White, the question is whether your log shows that at that point the formation changed from shell to rock?

A It does not.

Q Why didn't you answer that in the first place? [2754]

A I wished to explain to you that there is no change — rock and shell are the same thing.

Q If you can answer the question first and make your explanation afterwards we can get along much faster.

Mr Lewers — Will you agree to give him the opportunity, and not interrupt him when he starts to make an explanation, as is your usual custom?

Q By Mr Mills — Now, Mr White, will you examine the drilling reports for April 16, and April 17, and state what they show in the way of formation?

A "April 16, 1613 to 1620, rock; April 17, 1620 to 1621, rock; 1621 to 1624, blue clay."

Q Now, will you look at the log, Defendants' Exhibit 175, and state whether you show, in express terms, that at 1621 the formation changed from rock to blue clay? Does your log show that?

A It does not show it specifically.

Mr Lewers — If you have any explanation to make, Mr White, under Mr Mills' promise you have a right to make it.

Q By Mr Mills — That is, do you desire to volunteer anything outside of the questions I asked you?

Mr Lewers — Oh, I see!

Q By Mr Mills — Now, Mr White, will you examine the drilling report for April 18, on this well, and state what the drillers reported as the formation they passed through?

A "1624 to 1625, blue clay; 1625 to 1628, shell; 1628 to 1640, shale and boulders."

Q Will you examine the log, bearing date with your drilling report, and state whether your log shows that the drilling operations passed through those formations at those points?

A Yes; it does show it. [2755]

Q What does it show?

A Although the blue clay is classed as shale. Then comes the shell.

Q Show me, in the first place, what shows there?

A This is the shale.

Q From where to where?

A 1624 to 1625. That was a portion of the previous day's.

Q Aren't you pointing now to 1625?

A The formation on the previous day's report is a portion of this. It is not a change; there was not one foot from 1624 to 1625.

Q Show me where you have, on your log here, from 1628 to 1640, shale and boulders.

A I class that under the hard shale.

Q I am asking you if you can show on your log the words, "Clay and boulders", at that depth, as it appears upon the daily drilling report.

A The words "shale and boulders" appear on the drilling report.

Q I mean "shale and boulders".

A I have shown it as hard shale. I have not shown any boulders.

Q Then your log fails to show the formation as reported exactly by the drilling report, doesn't it?

A In the exact wording of the drilling report, to some extent.

Q And did you take occasion, on any of these reports, to interview the drillers whose names appear upon the daily drilling reports?

A No; I did not.

Q Or confer with them in any way as to their reports? [2756]

A. No.

Q And in this case, as in the others, you substituted your own judgment for the drillers', in making up this log — that is — in your judgment and Mr Williams' judgment?

A I would not put it just that way. There is no substitution. It is simply grouping all these different small strata into one group that would be intelligible.

Q That is, you think it would be more intelligible to put down "blue shale" for a distance of 515 feet, when it shows several changes to other formations from the daily drilling reports? Is that what you mean?

A In which particular instance do you refer to?

Q In any instance, in any stretch of 500 feet on this log.

A Well, if there is one particular stretch of 500 feet between sandstone, for instance, I would put it as blue clay. Blue clay and blue shale, to my notion, are practically the same thing, in the drilling of a well with the rotary process. The only difference is a slight difference in the hardness, possibly.

Q You would group blue clay, as I understand you, blue mud, blue sandy shale, sandy shale, and clay and boulders all under the same thing? And that you have done in this log?

A Not necessarily.

Q You have done that on this log, haven't you.

A In any one group?

Q Wherever those occured you have always called it "blue shale", haven't you, down to a depth of 1600 feet?

A Yes; we group it under —

Q Yes. What have you there from 1640 to 1647, on Defendants' Exhibit 175?

A I have shown hard shale. [2757]

Q And that hard shale which you show there extends from what point to what point — for how many feet?

A From about 1630 —

Q To nearly 2100 feet?

A No; I have got soft shale in here. The bottom portion of this was softer.

Q Well, 2000 feet?

A In that neighborhood; yes.

Q Or about 360 feet.

A Well, I have not termed it hard shale after — the top of this shale, harder than the lower portions.

Q Well, how many feet would you say that you termed it hard shale?

A The hard shale was possibly from 1630 to in the neighborhood of 1750.

Q Now, will you read what the daily drilling report says, from 1640 to 1667 feet, for April 19, 1911, on this well, through formations which you call hard shale?

A "1640 to 1647, shale and boulders; 1647 to 1658, blue clay, 1658 to 1666, hard shale; 1666 to 1667, blue clay."

Q That is another instance where you failed to follow the daily drilling report as it was placed there by the drillers.

A Yes; I have simply grouped those under the one term "shale".

Q Will you read the daily drilling report for April 20, on this well?

A "1667 to 1710, blue clay".

Q What have you got for the depth on your log?

A I have shown that as a shale, hard shale.

Q You don't even show it as a blue shale, do you?

A I didn't distinguish it, no, except by the color. Our color scheme there is supposed to show the blue formation. [2758]

Q What color stands for blue on this color scheme of yours?

A That is maroon, or brown.

Q Doesn't this maroon or brown also stand for brown shale, the very first thing?

A Yes; that is true.

Q Yes. So that, if you were to follow out your color scheme, beginning at the top, all that is colored maroon would stand for brown shale, wouldn't it, excepting where you have changed it to something else?

A Evidently for shale; the maroon color stands for any kind of shale.

Q But you have started out by calling it "brown", haven't you?

A The brown is the first that appears in the well, yes; but all shale, upon the log, is shown in brown color, or maroon.

Q Wasn't it the fact that the reason the word "BROWN" was put in large capital letters at the top of this log was that it was put there for the purpose of making it appear to the court that all the shales you passed through, excepting where you expressly stated the color, were brown shales?

A No; there was no such intention.

Q And with the intention of making it appear that this well was not a good well because it passed through a shale, the brown shale, which through the Kern county is generally an indication of non-oil territory? Was not that your reason?

A No such intention at all, Mr Mills.

Q Why was it that you marked the word "BROWN" in larger capital letters than any other word on your color scheme?

A That was simply part of the draftman's doing,

as that particular body of shale changed from a brown to a blue.

Q I will ask you what formation was passed through from 1710 to 1743, as shown by your log. [2759]

A I have shown a shale formation.

Q What kind of a shale is that?

A I have not designated it. It is simply "shale".

Q Well, what would you say it was, without referring at all to any report? Just state what you would interpret it, you having made the log?

A I would simply give you it at this time as shale. My remembrance is it was probably blue or sandy shale.

Q Do you interpret it that way from memory?

A Partly; yes.

Q Can you show me, at any point on the diagramatic log, Defendants' Exhibit 175, from the depth of 2000 feet to 2500 feet, which will show where boulders occurred?

A No; I have not shown any boulders between 2000 and 2500, except that I have shown hard shales and shells.

Q Now, if it became important in this case to know whether there was a formation of boulders at some depth between 2000 and 2500 feet, it would be impossible for the court to determine from your log where they occurred, would it not, or even to show that it did occur?

A. Yes.

Q Now, I call your attention to drilling report

of April 29, 1911, which reports on the formations passed through from 2012 to 2031, and ask you to read it.

A "2012 to 2031, soft blue shale and boulders."

Q Will you look at your diagramatic log and tell me what formation you can find was passed through from 2031 to 2056 feet, without reference to the drilling report?

A They were in a shale which graduated from soft to hard.

Q At what point, from your log, did it graduate from soft to hard? [2760]

A The figures are not shown on the diagram here.

Q Well, tell us within twenty or thirty or forty feet of where it graduated.

A Well, somewhere in the vicinity of 2040 feet.

Q "Somewhere in the vicinity".

A I should judge that from this log.

Q How much latitude do you allow, now, on each side of that 2040?

A I was allowing the amount that you mentioned.

Q 50 feet, 40 feet?

A Oh, no; somewhere in that vicinity.

Q Well, about where would you say? Where could the court determine, with any degree of accuracy, where that graduation from one shale to another occurred, from your log, without reference to any other document in this case?

A Well, I would determine from this log that it was somewhere in the vicinity of 2040 feet.

Q Might it be 2022 feet?

A From this log, I would say in the vicinity of 2040.

Q 2040.

A Somewhere in that vicinity. There are no figures shown there, but it is our practice to put it in in that way, as shown.

Q As a matter of fact, it was 2031 feet, where it started, wasn't it?

A Well, that is very close, I think, in a log of that kind.

Q That is 10 feet off, isn't it?

A 9 feet.

Q According to the drilling report.

A Yes, according to my log.

Q And then it passed into a blue shale, did it not?

A This was also a blue shale. There is no change in the [**2761**] formation. It is simply a graduation from a soft shale to a little harder shale, as reported by the daily drilling slips.

Q What does the diagramatic log Defendants' Exhibit 175, show from 2110 to 2125 feet?

A It shows hard shale, brown.

Q Now, will you read so much of the daily drilling report of May 4th, 1911, as discloses the formation reported by the drillers between 2110 and 2125?

A "2110 to 2125, blue shale."

Q Now, you have made a mistake there, on your log, haven't you, and put your blue shale in the wrong place? The brown shale should have followed that.

A Well this simply shows hard shale in the lower portion, or from about the neighborhood of 2120 to

2135 is marked brown, the lower portion of the shale formation.

Q When you answered the question without reference to the report, you stated that from 2110 to 2135 was brown shale, didn't you?

A. Yes.

Q Whereas, as a matter of fact, the driller reported it as blue shale, hard blue shale?

A I was mistaken in my answer there, because from 2110 to 2135, approximately, it is shown as a hard shale, with the formation from 2120 to 2135 marked brown, showing the lower portion of that shale formation was darker in color.

Q You didn't discover your mistake until you found that the report differed from the log, did you?

A Well, I think it shows on the face of it there that it is shown the way I speak of on the log.

Q Now, doesn't your log, as a matter of fact, show between 2110 to 2135, hard brown shale, and didn't you state that, the first part of the examination, when you went through that [**2762**] log?

A Well, the amount of formation there is hard to determine. The way it is written in here seems to show that the lower portion of the shale was brown, although it is a little hard to determine just what is intended.

Q It was not very hard to determine from this report which I hand you, was it? It gave it in exact feet? Read it.

A "2110 to 2125, shale; 2125 to 2129, hard brown shale".

Q The daily report shows it clearly, doesn't it?

A Yes. In those small graduations, though, there was no attempt to go into any such detail as that on the log.

Q In other words, no attempt to be exactly accurate on the changes of formations that you passed through?

A Yes; it was intended to be accurate, but there was no intent to represent each little change in hard or soft formation where it was considered unimportant.

Q That is, considered by whom "unimportant"?

A Considered by us in compiling.

Q That is, by you as chief clerk, and who else?

A Mr Williams, W. A. Williams, chief geologist.

Q Referring again to your diagramatic log, will you state what you showed from 2132 feet to 2137 feet?

A It shows a streak of hard sand.

Q Now, what do you show from 2137 feet to 2149?

A It is indistinct on the print here, but it looks as though it was brown shale.

Q Which word is indistinct?

A The word "shale" didn't blueprint very well.

Q The word "brown" is distinct, isn't it?

A. Yes.

Q Now, I ask you to look at the daily drilling report for May 5, 1911, and state what the driller reported between the [**2763**] depths 2137 to 2149, where you call that "brown shale" on the log. What did he call it?

A This report shows blue shale.

Q Just a confusion in colors on the part of the compilers, wasn't it?

A The small graduations were not gone into in detail on the graphic log.

Q In other words, you and Mr Williams got a little color-blind, when you reached the depth of 2137?

A No; there was no color-blindness at all; it was simply our intention to get up something that would be of practical value as a log.

Q. That is, practical value in a railroad sense, or practical value in a geological sense?

A In a geological sense.

Q What does your diagramatic log show as the formation from 2149 to 2155?

A That is also grouped under the classification of brown shale.

Q As a matter of fact, the drilling report for May 6th shows that it is a blue shale, doesn't it?

A Yes.

Q What have you got from 2155 to 2157?

A That two feet is also included in the brown shale classification on the log.

Q Now, what does the drilling report for that day for those depths show it to be?

A It shows hard sand.

Q Will you tell me what your log shows in formation from 2157 to 2167?

A That is included under the term "brown shale". I would like to add, further, that the entire

group of shales and hard [**2764**] shells, between the depths of approximately 2140 feet to about 2200 feet, was grouped, instead of going into detail as to the various stratas — was grouped under the term "brown shale", "sand", "shell", and so on — one general grouping.

Q Now, you have stated, haven't you, that from 2157 to 2167 you have called it brown shale?

A It is included under that group.

Q Well, you have called it "brown shale", haven't you?

A Yes.

Q Now, in fact, the drilling report for that depth shows that it is hard blue shale, doesn't it?

A Yes. As I said before, all these shales, in that particular formation from 2140 to about 2200, were grouped together under the term "brown shale", "sand", "shells", and so on.

Q Now, why didn't you call it "blue shale", if it was hard blue shale, instead of "brown shale"?

A Well, there was too many changes from one formation to another in there, from one color to the other, that were inconsequential, or were considered so at that time.

Q But you have made distinctions in this log in several places between blue shale and brown shale, haven't you?

A Yes, when there was some considerable quantity of it — considerable thickness.

Q But for a distance of several hundred feet you

term it all "brown shale", when, in fact, it is mostly hard blue shale, for convenience?

A I think not. I don't know just what instance you refer to of several hundred feet.

Q I am referring to the depths from 2140 to 2535 feet.

A No; there are points in between there where the color is not given; it is simply hard shale, soft shale.

Q Well, for what depth have you called it "brown shale" — [**2765**] from 2140 to what depth?

A Well, into the neighborhood of 2200 feet. At that point it was changed to hard shale, no color given.

Q What does the Exhibit 175 show, from 2207 to 2228?

A It simply shows that it is in the — shows here as hard shale, or a graduation from the brown shale to a hard shale.

Q As a matter of fact, it is blue shale, isn't it, according to the drilling report?

A Well, there is no color.

Q Well, isn't it a blue shale, according to the drilling report?

A Yes; the drilling report shows blue shale. There is no color given here on the log.

Q Now, will you look at the log, Mr White, and state at what point gas is shown after you pass the 2000-foot level, that is, examining Defendants' Exhibit 175?

A The first gas shown is in the neighborhood of 2420 or 2430 feet.

Q That is the neighborhood of 2420 feet?

A 2420 feet or 2430 feet.

Q It is quite important, isn't it, to show where the first gas appears in the log of a well, exactly?

A Yes; if there is any quantity of it.

Q That is, to show it exactly, where it occurs?

A Yes; we aim to show it, if there is any quantity of gas — strong — any amount of it.

Q Well, suppose it is only a light quantity of gas, don't you aim to show it exactly where it occurs?

A Not necessarily in a log of this kind. There is gas from a few feet down, generally, in most every well.

Q Was there in this well?

A Not that I know of, particularly. But we don't aim [2766] to show it on a log, unless it was something important, some important gas.

Q Aren't the drillers instructed to report promptly any gas showing in an oil well, at the exact depth?

A Yes; if it amounts to anything.

Q Well, if it does not amount to anything they are supposed not to report it, you mean?

A They usually use their own judgment.

Q That is to say, if they strike gas at any point and in their judgment it was not much gas, they wouldn't report it?

A Unless it was some considerable quantity they wouldn't, probably, bother with it.

Q Now, suppose it was in considerable quantity, what would be the importance of it.

A They would usually report it.

Q Why would you regard it as important to report it?

A Well, it shows that you are in an oil formation, for one thing — or near one — although that is not always true.

Q What do you show from 2835 to 2843 on Defendants' Exhibit 175?

A That is shown under the general classification of blue shale.

Q Do you show, at any depth between 2800 and 2900, a discovery of gas, on that log, on June 26, 1911?

A No; there is nothing shown on here to that effect.

Q Now, read the daily report for June 26, 1911, which involves the formation that I have referred to?

A "2835 to 2843, blue shale; little gas."

Q Now, will you state, for the benefit of the court, why that information was suppressed on this log, if you know?

A Simply because it was considered unimportant. They reported it as "little gas". It was not the intention to go [**2767**] into any detail over unimportant points.

Q Then why was it that you reported every day on the log where there was some gas?

A Because that was the first gas, as I remember it, of any amount or any quantity.

Q I thought you said that was only a "little gas", that first gas.

A I don't believe I said that.

Q You had plenty of room, didn't you, on this log, between 2800 and 2900 feet, in which there appears no writing at all, to write the word "gas", or "little gas", didn't you?

A It could have been inserted; yes.

Q And there is no other writing on that log for that hundred feet, is there?

A I would like to finish my explanation, if you will allow me.

Mr Lewers — Proceed. You have a right to.

The Witness — Well, you have got two or three questions at me now.

Mr Mills — Read the record, Mr Examiner. (Record read by Special Examiner.)

A (Continuing) No; there is nothing else shown for that 100 feet. I simply wish to add that their report of "little gas" was not considered of enough importance to insert, as we were not carrying the log in any great detail.

Q Now, in this connection I call your attention to your testimony on direct examination, page 7116 of the record, in which Mr Lewers asked you this question, referring to these diagramatic logs: "Q—I show you what purports to be such a log", and so forth. "A—It was prepared at my request, by a draftsman employed in our office, and afterwards checked with the daily reports." By that you mean these reports we [**2768**] have been examining?

A Yes.

Q "Checked by whom? A—Checked by myself and Mr Jeffress." then some conversation about Jef-

fress. "Q—And what was the result of that checking, as to whether or not this is an accurate representation of the results of the various reports received? A—It agreed with ther reports." As a matter of fact, it does not agree with the reports in that respect, does it?

A It does not go into as much detail as the reports; but that was not our intention in checking it — to make it agree entirely with the details as shown in the reports — although it is substantially correct, according to our knowledge.

Q Mr White, were the Exhibits 176 and 177, which constitute the alleged diagramatic logs of the wells on Section 30, in 30 - 24, and 26, of 30- 23, made up in the same general way that you made this log from the daily reports?

A Yes. There was no attempt made to carry out the detail of small stratas.

Q And in places where this log in general has not followed in detail the daily drilling reports, the other logs may be said to do the same?

A Yes; they were made up on the same basis.

Mr Mills — Upon that statement, then, I shall object, now, to the offer by Defendants' counsel of Exhibits 175, 176 and 177, upon the ground that they are admittedly not accurate representations of the history of the formations passed through in the several wells to which they refer, as shown on the daily drilling reports, and because they in frequent places suppress information as to the formation and in other places misrepresent the formations, and are alto-

gether inaccurate and untrustworthy. That objection is based upon the examination of Defendants' [2769] Exhibit 175 and upon the witness's statement that the other logs were compiled and prepared in the same way, with no attempt to accurately in detail represent the formations passed through as shown by the reports of the drillers made daily, and because, further, the so-called logs constituting these exhibits are really the result of a substitution of the judgment of the chief clerk of the engineer's office of the Associated Oil Company, made some two or three hundred miles away from the scene of the operations, for the judgment of the drillers themselves, who were right on the spot and had opportunity and the experience to determine the exact formations passed through by the drill. That concludes my cross-examination.

REDIRECT EXAMINATION
OF
W. E. WHITE

By Mr Lewers:

Q Mr White, was there any different method in the preparation of these logs from what is followed in the preparation of all the other logs you have had occasion to use or to assist in preparing in the Associated Oil Company's offices?

Mr Mills — That is objected to because I believe it was asked and answered on direct examination.

Mr Lewers — You may answer.

A There was no difference in preparing these logs

from the manner of preparing practically all our other logs. We didn't aim to go into unimportant details that would only simply confuse the chart, or make it incomprehensible, almost.

Q Do you have many logs in your files?

A Yes; we have quite a number of them.

Q Would that number run into the hundreds?

A I have no custody of them myself at this time, but we [**2770**] have hundreds of logs of the same character.

Q And I understand you to say that in the preparation of this log you were assisted by Mr W. A. Williams, the chief geologist at that time of the Associated Oil Company?

A The logs were made up under the supervision of Mr Williams and myself.

Q Was there any effort made, or any desire, on your part or on the part of Mr Williams, as far as you know, to suppress any material or important fact in connection with those logs?

A There was not. On the contrary, we simply wanted to put down the information as we had it, as we found it on the daily drilling report.

Q Were those logs prepared under the direction of any one representing the Southern Pacific Company?

A No, they were not.

Q At whose suggestion were they prepared?

A Prepared at my own suggestion.

Q And for whose use were they prepared?

Mr Mills — I object ot that, because the witness

has already answered, I think, in the first part of cross-examination, that they were prepared by him to be used in this suit, in this litigation.

Mr Lewers — You may answer.

A They were prepared at my own suggestion for the use of Mr Jeffress, who I understood was your assistant.

Q Did you, at the time you prepared those logs, have in mind their introduction as exhibits in this case?

A No, I did not.

Q Why did you suggest that they be prepared?

Mr Mills — That is objected to as wholly immaterial.

A So that you would have, or Mr Jeffress would have, a [2771] concise and complete diagramatic log instead of the numerous drilling slips, reports.

Q By Mr Lewers — Was that true with reference to the other diagrams that have been introduced in evidence that were prepared by you?

A Yes; the same thing applies to those.

Q Were you at that time made acquainted by any one with any of the details of the controversy as to the geological formation in the Elk Hills that had been brought out in this suit?

Mr Mills — That is objected to, upon the ground that it is wholly immaterial whether he was informed of that or not.

A I had followed or read something in the papers, something of the suit, your suit, but I had no interest

in the matter or didn't take that into consideration in making up any logs at all.

Q By Mr Lewers — Well, had any suggestion come to you from any source that it was necessary or advisable to suppress any information or to misrepresent any information?

A No; certainly not.

Q Mr White, do you know whether these logs that you and Mr Williams prepared are in accordance with the general custom of preparation of logs by other companies engaged in the oil business?

Mr Mills — That is objected to as extremely suggestive and leading.

A A great many other, or some of the other, companies have different methods of preparing logs; but they practically all show the same thing. Some are more in detail than others. But our practice is not to go into any detail for stratas which are only a foot or so thick without any definite change, or change in character of hardness, and so on. At all alternate [2772] layers and stratas it is impractical and impossible to report them correctly, in the first place, by the drill, and by plotting those on the log it simply confuses instead of helps matters.

Q By Mr Lewers — Do all drillers use the same method of describing the same formation?

Mr Mills — That is objected to upon the ground that the witness is not qualified to answer the question.

A The drillers have their personal ideas in these

matters, to some extent, and two drillers may report the same formation differently.

Q By Mr Lewers — Well, have you ever heard the expression "gumbo" used by drillers in their reports?

A Yes.

Mr Mills — Objected to as immaterial.

Q By Mr Lewers — What do they mean by that?

A That is a driller's term, or a rotary driller's term, particularly, for blue clay, tough blue clay, or sticky blue clay.

Q Now, Mr Mills has paid a great deal of attention to some of the individual well reports which refer to "boulders". What is a "boulder", as referred to in that way?

A Our understanding of "boulders" in this particular well, or other wells in the Elk Hills, is that they are simply harder stratas of the same formation. They are not what is known or what you understand to be boulders such as boulders you find in a creek bottom, granite boulders, and so on; they are simply harder stratas, usually in the same formation. For instance, there may be hard sandsone struck, or sometimes they term it a "shell"; and that is our understanding of the term "boulders" — anything that is a little harder than the formation they have been in. [2773]

Q Well, could a hard patch of the shale itself, without being sand shell, be called a "boulder", or is it called a "boulder", by drillers?

A It would, in some cases, in a rotary well, be

called a boulder, if it was hard and caused them some trouble.

Q In case the clay or shale through which they were going didn't readily break up or mix with water, so as to come out in the form of mud, and balled up — would that be called a boulder?

A Well, I would not class that as a boulder, although in the blue clay there is sometimes found a nodular substance which, if there was any amount of it, might be termed "boulder" — simply a hard clay, harder than the rest of the formation.

Q Then I take it it is not an indication of a boulder such as you find in a creek bottom?

Mr Mills — I object to that as leading and suggestive, and an attempt to coach the witness into an answer that you desire.

A It is not my understanding that such is the case. I do not consider them as the ordinary boulders as we see them in the creek bottoms.

Q By Mr Lewers — Well, where a report of that kind came in, would it, in generally classifying the formation, be necessary to differentiate that from the surrounding shale?

Mr Mills — That is objected to, and all of these questions along this line, upon the ground that the witness has not qualified, so far, to answer such questions. He has stated he is not a driller, never drilled a well in his life, never had charge of a drilling crew, but has been looking up lands for the Associated and other oil companies.

Q By Mr Lewers — (Continuing) in the preparation of a log such as this?

A No; it wouldn't be an important detail. It would simply show that the formation was a trifle harder than that which pre- [2774] ceded something of that kind.

Q Do you know of any other instance were drillers are in the habit of reporting "boulders", or any other cause for their reporter "boulders", in your experience?

A Sometimes when they don't make the necessary amount of hole they report it as "boulders" or "hard formation", which is simply a subterfuge or excuse for not getting down enough hole in a day — although that is only done occasionally by certain drillers.

Q Mr Mills has asked you a great many questions with reference to the actual monthly production as compared with a total made by adding up all of the figures appearing in the columns on your diagramatic chart of the history of these three wells in the Elk Hills. Now, basing your answer upon your experience in the oil fields and in the oil business, and upon your knowledge of the way in which oil is measured and production determined, if you desired to ascertain the production of a well, where would you go to get that information — to these daily telegraphic or written reports, or to some other place?

A I would not go to the daily production shown on the telegraphic reports or written reports, as that is simply an estimate. The only correct way of get-

ting the production would be, at the end of the month, to measure it up. That is our only source of information as to monthly report.

Q Now, is that true with reference to these wells in the Elk Hills only, or is it true as to other wells?

A Well, we have a report which shows the estimated production of each well, that is, in certain fields, and that is simply an estimate received daily; but, at the end of the month, our costs of production are figured on the monthly report of production and not on the estimated daily production.

Q And what is that monthly report based on — an esti-[2775]mate or a measurement?

A That is based on a measurement, taken as accurately as possible.

Q Have you had any experience in connection with the estimation of the production of wells in the field?

A Yes; I have.

Q And what experience have you had?

A Well, I have gone through the fields at different times, on making up, or assisting in making up, reports on properties, and so on, at which times it would be necessary to obtain a fairly accurate estimate of the production of those properties involved, in the Midway and Sunset fields particularly.

Q Have you any knowledge, from your own observation, of the method or methods employed in the field by drillers or superintendents to determine the estimate of daily production?

A There are various methods used. In many

cases they simply look at the well, and estimate from their knowledge of what the well should do. In other cases they will take a small receptacle — can, or something of that kind — and measure it for a two or three minute period, five minute period, and then estimate what it would do in twenty-four hours. In some cases they will have a tank to run it into. It depends on the size of the well a great deal. But the estimated production is simply to guess the information as to how the well is getting along in a general way, and not to show the actual production of the well.

Q Now, what has your observation been as to how these estimates compared generally with the actual production at the end of the month?

A Well, in the majority of cases the daily estimates are much too high, on account of not having taken out deductions for water, and a great many other causes — water, sand, froth, [2776] and all that sort of thing.

Q Well, what do you mean by "froth"?

A Sometimes, when a well is gassy, it will throw the oil out in a sort of spray or froth, accumulation of froth on top, and if you are measuring in a small can it would help to fill up your can although you would not have solid oil.

Q That is, unless you greased the inside of the can you would get more foam than oil? Is that it?

Mr Mills — That is objected to as leading and suggestive.

A Yes sir.

Q By Mr Lewers — And then, Mr White, can any

safe, or approximately safe, determination of the actual production of a well be made from these daily estimates?

A No; it would be nothing more than a generality, and a great deal would depend on the personal element of the man reporting the well. In many cases we have a report from superintendents and after we have received the monthly production we tell them to cut down the daily estimated production so that it will better agree with the monthly report.

Q Will the experience in connection with the Elk Hills wells that have been referred to, with reference to their daily and actual production differ from what you have observed in connection with other wells as to the same comparison?

Mr Mills — That is objected to, because the witness is in no position to know what the actual production is, except by hearsay.

Q By Mr Lewers — In other words, would you find, in connection with other wells, that the actual production fell below the aggregate of the estimates?

A Yes.

Mr Mills — That is objected to as leading.

A (Continuing) That is the case as a usual thing. The [**2777**] actual production is less than the estimate.

Q By Mr Lewers — Mr White, calling your attention to Exhibit No. 173, being the chart concerning well No. 1 in Section 26, and calling your attention particularly to the month of April, 1911, Mr Mills asked you at great length with reference to a certain

20 barrels of oil that apparently he conceived hadn't been entered upon the chart, indicating a loss of total production of 20 barrels, and I will ask you what there appears for the 1st and 2nd of April on your chart.

A The 1st of April, 20 barrels; the 2nd of April, 20 barrels.

Q I call your attention to the report dated April 3, 1911, for April 2nd, 1911, on well on Section 26 that we have been referring to, and ask you to read that. Mr Mills didn't call your attention to it.

A "Elk Hills. Section 26, No. 1 3548 feet; 3104 to 3548, 3 inch liner. Pulling out 2½ inch tubing and 1½ inch pipe used for pumping by air to learn condition in bottom of well to properly proceed to deepen."

Q Is there any report there of the production that day on that well?

A Not on April 2nd.

Q Then your chart would show a production of 20 barrels on April 2nd that does not appear upon the report? Is that correct?

A That is correct. It is evident that I have taken the date of the log instead of the date for which the production was reported.

Q That is, you have gotten your production in the wrong column? Is that right?

A I have just gotten one day ahead of time.

Q But have you reported all of the oil? Assuming that [2778] you have made the error on the

proper date, have you left out any of the production as reported?

A No. That would account for the 20 barrels Mr Mills spoke of yesterday.

Q Would these charts be misleading or confusing to any man who was familiar with the oil business and who had access to the same material that Mr Mills has had access to?

A I don't think they would be misleading in any way.

Q Was there any desire on your part to prepare them in such manner that they would be misleading to anybody?

A No. It was, on the contrary, my idea to prepare them so that they would be a proper representation of the development of that particular well, in a concise manner.

Q There are numerous references in the reports that have been read into evidence to flooding the well, swabbing, perforating, and so forth. What is the purpose in doing that sort of work in a well?

Mr Mills — That is objected to as immaterial.

A That is done in an endeavor to increase the production.

Q By Mr Lewers — Mr Mills on one occasion referred to the lowering of the pump in well No. 1 in Section 30 of 30 - 24. What is the purpose of lowering the pump in a case of that kind?

A I believe when I referred to the reports at that time it showed that the fluid level had dropped to that

depth, which made it necessary to drop the tubing to reach the oil.

Q Would that diminish the production of the well?

A No; that would serve to increase it. In fact, the only way to get any production would be by putting the tubing down into the oil.

Mr Lewers — That is all. [2779]

RECROSS EXAMINATION OF W. E. WHITE

By Mr. Mills:

Q. The reason for pushing the pump down at that point, from the 2360 level to 2600 feet, was due to the fact that the perforations in that formation in which they had been pumping had become clogged? Isn't that it? No oil came in from the formation and they had to put the pump down.

A. That is not my interpretation of the thing, Mr. Mills. My idea is that the head was pumped off the well, necessitating the lowering of the tube.

Q. Can you explain, then, why they reperforated through that formation when they had already perforated, if the holes were open?

A. They frequently do that.

Q. Isn't it due to the fact that the perforations become clogged up and they have to reperforate?

A. In some cases that is true, but not in this particular case, is my understanding.

Q. In this particular case, after reperforating they got more oil, didn't they, at that formation, according to your own reports?

A. I have not the details of the perforations in my mind now but the general idea was that after we had pumped the well awhile and the production was disappointing, then we went in and reperforated and perforated at other points in an endeavor to secure a larger production.

Q. You know, as a matter of fact, that when that particular formation we have been discussing was reperforated the production from that formation increased at once, as shown by the daily reports?

A. Referring to this statement, it does not show that the perforating helped the well in the least.

Q. Referring to what statement? **[2780]**

A. This schedule.

Q. What is the number of that exhibit?

A. Exhibit No. 174.

Q. That is your chart?

A. The chart 174. It shows that the well, after first being perforated, did in the neighborhood of 50 barrels in thirty-six hours, and after the second perforation the first production noted here is 25 barrels of oil and 100 barrels of water. I don't know whether those perforations were at the same point or not, whether that was at the same point in the formtaion as the first one or not.

Q. Now, don't you know, as a matter of fact, of common knowledge of the oil business, that an oil well driller knows by the action of the tools themselves at the surface, as indicated at the surface, when he strikes boulders?

A. Yes, he does, when he strikes a hard formation.

Q. And you know, too, don't you, Mr. White, that a boulder in underground formation is the same as a boulder on surface formation, and is so generally understood by everybody?

A. That is not my understanding of a boulder in a rotary well.

Q. Let me ask you this question: Don't you know it is a common, everyday experience among drillers that when they strike a boulder formation, that a boulder often dents the pipe, rolls against it and dents the casing, and that they have to swedge?

A. That is true, in some localities.

Q. Now, that would not be some soft clay that struck that casing, would it? It would be a boulder.

A. I want to make myself plain. There are certain formations where there are boulders. We are talking about this particular well.

Q. Now when we strike a formation in which there are boulders, which we commonly understand them to be at the surface forma- **[2781]** tion, what does the driller call them—"clay" or "boulders?"

A. He would call them "boulders."

Q. Certainly.

A. But in rotary drilling we call practically all hard formation "boulders." There are two different formations that they report, and that is "gumbo" and "boulders."

Q. Now, is not shell formation a hard formation?

A. Yes.

Q. And hard sand rock a hard formation?

A. Some drillers will report hard shell or hard sandstone as a "shell." Other fellows will call it a "boulder." That is my understanding.

Q. Now, what drillers on these three deep wells of the Associated Oil Company reported "boulders" in order to show reasons for not "making hole," as you call it? What are their names?

A. I didn't accuse any one of doing that on these particular wells. That is a practice in some cases. I didn't accuse any one of doing those things on these particular wells.

Q. You have no reason to believe but that those drillers on these three wells we have been discussing reported correctly the formations, according to their own judgment, as they passed through them?

A. No; I had no reason to doubt it. I was simply speaking in generalities.

Q. And you know very well the man in charge of the operations in the Elk Hills, Mr. King, was a man of experience in the drilling of wells?

A. Yes.

Q. How much experience has he had?

A. I don't know. I presume in the neighborhood of twelve or fifteen years, from hearsay.

Q. And he is in charge of all the divisions or all the field **[2782]** operations of the Associated Oil Company?

A. He is in charge of the Midway division.

Q. And how many wells would that constitute that he has charge of?

A. You mean producing or drilling wells?

Q. Drilling and producing—all together.

A. Oh, at that time he possibly had eighteen or twenty; in that neighborhood.

Q. He had as many as eighteen wells—I mean in the Elk Hills—didn't he?

A. Yes. Well, that was practically all we had. We had some eighteen—you might say thirty-five all together.

Q. And do you regard Mr. King as a competent man to have charge of drilling operations?

A. Yes; I do.

Q. You have no reason to believe that he would deliberately mis-report the daily drilling operations on those wells, have you?

A. No.

Q. You said, on the first part of cross-examination, that at times the estimate of production will sometimes run over or less than the actual production, sometimes as much as 100 barrels where there was a great deal of oil. Is that still your opinion?

A. My opinion is that the estimated production is in many cases very unreliable.

Q. Well, it sometimes runs over the actual production, does it not?

A. I have seen but very few cases of that.

Q. You have seen some, have you?

A. No; I can't recall any particular case. My experience has been they usually over estimate.

Q. Didn't you say, in the first part of cross-examination, that the estimated production would

run 100 barrels over or less [2783] than the actual production on a 400 barrel well?

A. I said that that was possible; yes.

Q. Well, didn't you say it often did that on a 400 barrel well?

A. It would depend on the action of the well a great deal.

Q. Now, when you said that, you meant it, didn't you?

A. Certainly.

Mr. Lewers: As a matter of fact, he did not say that, Mr. Mills.

Mr. Mills: Well, the record will show what he said.

Q. Now, was the apparent suppression of the production of these wells in the Elk Hills due to the fact that the Associated Oil Company was under contract of royalty for the production, with the locators, and because they were required to pay so much a barrel for actual production, or was it due to the fact that the actual production was minimized for purposes of this case?

A. I don't believe there is any suppression in any way, Mr. Mills, that I know of, as to production or drilling operations in the Elk Hills.

Q. Your attention was called to this 20 barrels of oil on your chart, by Mr. Lewers, and you now find that you made a mistake and entered that item on the wrong day on your chart? Is that correct?

A. That is evidently correct; yes.

Q. Why was it, then, yesterday, on cross-exami-

nation, that you persisted in saying that the 90 barrels of oil of the last few days of the month preceding included that 20 barrels, and, as suggested by Mr. How, of counsel for defendants, that it must have included it because the well was shut down, when you now state that the well was running the next day and produced 20 barrels? Was it because you could not understand it?

A. I thought I had included the 20 barrels under the total [2784] of 90 for the three days.

Q. And did you assign that as a reason because the well was shut down?

A. That is what, in looking over the record at this time—In looking at the telegram yesterday it showed that the well was shut down on the 31st, and I assumed that the 20 barrels therefore was included in the 90.

Q. And as a matter of fact it was not shut down at all, was it? It was pumping the next day.

A. Well, the telegram of the 31st states it was shut down, I believe.

Q. The telegram of the 31st of March?

A. March, 1911.

Q. There is no telegram covering that date in this case, is there?

A. There is the written report of the operations of that date.

Q. Now, show me, on the written report under that date, where it states that the well was shut down.

A. It states here that they ran the compressor until 7 o'clock the morning of March 31st.

Q. Where does it say it was shut down?

A. We simply assumed it from that, in looking it over yesterday, that the well was shut down.

Q. Well, then, it was a matter of assumption and not a matter of fact, was it?

A. In going through hurriedly with you yesterday, that was my assumption.

Q. Have you prepared any diagramatic logs, for use by the Associated Oil Company or any of its subsidiaries, in any oil litigation in this state other than what appears in this proceeding?

A. No, not prepared for that special purpose. I have prepared a great many, and they may have been utilized for testimony, [2785] but not for that special purpose.

Q. But they were not prepared, as these were, for use in a case?

A. I didn't prepare these for use in a case.

Q. Didn't you state that Mr. Jeffress came over and told you he wanted these logs for the use of Mr. Lewers, who was conducting the defense in this case?

A. Yes; but what I mean is, to be introduced into court as an exhibit.

Q. Then, if you had understood it was to be introduced in court you would have been a little more careful about following the daily reports instead of substituting your judgment for that of the driller, wouldn't you?

A. No, not necessarily, unless I had consulted with some one who required them in a certain way.

Q. Were you subpoenaed to appear in this case.

A. No.

Q. Are you being paid by the Southern Pacific Company for appearance as a witness in this case?

A. No.

Q. Your time goes on with the Associated Oil Company, just the same, while occupying the witness stand, does it not?

A. Yes.

Q. And there will be no deduction made out of your salary, so far as you understand?

A. No.

Q. Now, from June 4th, 1912, until the latter part of August, or middle of August, of the same year, there are no daily reports on well No. 3 of Section 24 of 30-23. Where are those reports?

Mr. Lewers: I submit that has already been gone into at length; and it is not recross-examination.

A. I couldn't say for certain whether there were telegraphic **[2786]** reports covering that period.

Q. By Mr. Mills: I am not talking about telegraphic reports; I am talking about daily drilling reports.

A. Well, drilling had been suspended at that time.

Q. On June 4th?

A. Yes; as we understand "drilling," that well had been drilled at that time.

Q. And you then depended upon telegraphic reports from that time on?

A. Yes. There would be no further logs of the well.

Q. Where are the telegrams that are covered by these alleged confirmatory letters in 1911?

A. I couldn't say whether there were telegraphic reports during that period or not. That is quite a while back. But we aimed to bring everything we had in the line of telegraphic reports. There may have been something overlooked, but it was not our intention to do so.

REDIRECT EXAMINATION OF W. E. WHITE

By Mr. Lewers:

Q. Mr. White, suppose a rotary struck an actual boulder of the kind you find in a creek bottom, what would happen?

A. Well, it would depend on the formation they were passing through. If they were going through a soft formation at a high rate of speed it might cause them some trouble, such as twisting off the pipe, or something of that kind; but if they are going slowly and carefully, it is possible that it wouldn't do any damage.

Q. What effect would it have on the rate of progress?

A. Oh, they would slow up and go very slowly through that formation.

Q. Well, what difference would it have if the boulder would move in the formation? [2787]

A. I couldn't say as to that. It might cause trouble with the pipe.

Q. And that trouble would appear in the reports, would it?

Mr. Mills: I object to this line of questioning. This witness has not qualified as a driller; said he never drilled a well in his life.

A. Yes.

Q. By Mr. Lewers: What experience have you had around wells?

A. Well, I have been around wells practically the last ten years in the field. I never worked on wells, but I have had a good deal of looking after wells.

Q. And in conjunction with whom?

A. In conjunction with Mr. Bell, of the Associated Oil Company, and other parties.

Q. Mr. Mills asked you whether or not there was an inaccuracy in your chart where, in one case, it spoke of 350 barrel rate for eighteen hours and whether or not that would not indicate that the twenty-four hour production was 465 barrels. What is the fact with reference to that?

Mr. Mills: I object to the question, on the ground that it is not proper redirect.

A. Upon referring back to the telegram a second time a few days ago, when Mr. Mills handed it to me, I found that it read, "350 barrel (rate)" for eighteen hours, which, to my mind, would mean approximately 270 barrels for the day. It stated that

it flowed "350 barrels rate," but it only flowed for eighteen hours; therefore the actual production for that day I would interpret as being two-thirds of the 350, or 270.

Mr. Lewers: That is all.

Mr. Mills: That is all. **[2788]**

WILLIAM HOOD

Seventy-first Witness for Defendants. San Francisco. July 10, 1913.

Direct Examination.

I am chief engineer of the Southern Pacific Company and have been engaged in railroad work since May 3, 1867. I began in the Sacremento office of the Central Pacific Engineering Department and since that time have been connected with the Central Pacific, California and Oregon Railroad, Southern Pacific Railroad of California, Arizona and New Mexico, Galveston, Harrisburg and San Antonio Railroad, and all branch lines connected with these roads. I have been chief engineer of the Southern Pacific Company since some time in 1884, or practically since its organization, and was chief engineer of the Central Pacific for perhaps a year before that. I have been exclusively in charge of the construction work of the Southern Pacific Company since its organization and of a great deal of the construction work of other associated companies.

I am familiar with the line of road that runs from Bakersfield to McKittrick. This was constructed from Bakersfield to Lokern in the spring and sum-

mer of 1892 and was continued from Lokern to Asphalto, now known as McKittrick, and completed I think about February, 1893. The construction from Lokern to Asphalto was an after-thought, this extension being built on account of the asphaltum business expected there. The road was constructed primarily from Bakersfield to Lokern to develop the agricultural business of that country and in particular the holdings of Miller & Lux. I planned this branch and know the purpose for which it was constructed. The branch over to Asphalto was constructed because it was represented that there would be a promising business in asphaltum. It was built with steep grades and sharp curves as we expected that the tonnage would be downhill from the asphaltum **[2789]** beds to the valley and built it as cheaply as we could on account of the uncertainty of the duration of any form of mining business.

This branch to Asphalto was not constructed wtih the idea of developing oil. At that time there was no oil development in that entire country to my knowledge.

I was acquainted with J. R. Scupham in past years. I first met him in 1868. At that time I was Assistant Engineer on the Central Pacific Railroad, Mr. S. S. Montague being the Chief Engineer. When I met Mr. Scupham he was a draftsman in the office of the resident engineer of construction at Winnemucca, Nevada. The next I knew of him he was engaged as a topographer in a preliminary survey for me on the Sacramento River. I did not know of his

whereabouts after that until early in 1872 at which time I took charge of locating and constructing the railroad line from Fresno to Bakersfield. At that time Mr. Scupham was a transit man in my party. He continued in this work until some time in the summer of 1872 when he resigned and I never knew him to be connected with the engineering department afterwards.

If Mr. Scupham had been connected with the Engineering Department after that time, I think I would have been in a position to know, although I cannot say that positively; but I didn't sign the Engineering Department rolls. Mr. Montague did that. I never knew of his being engaged as an engineer after that time.

I did not sign the engineering department payrolls myself until after 1883, but since that time Mr. Scupham's name has never appeared upon our roll.

Mr. Scupham was considered a bright, agreeable, well-educated man, who had a tendency to wish to appear to be well informed upon every subject on which he might be questioned or which came up. His tendency in this respect was so well known that it might be described as notorious. As an instance, when he was at work for me in 1872, a bet was made between two members of the party **[2790]** that within a certain length of time, perhaps forty-eight hours—a short time—he could be asked five hundred questions on sundry subjects, including meaning of words, general subjects, of all descriptions, and that in no one instance would he say that he did not

know. And the bet was won. His opinions were regarded by his associates in the manner that would be indicated by the statement I have just made. Although I don't think he was a person who would maliciously misrepresent things, in order to continuously talk, facts as to the subject made very little difference to him. It was said jestingly to him, by some one who either originated the remark or had seen it applied somewhere—not maliciously, but as a jest—that the partition between his memory and his imagination was obliterated. That was his general reputation amongst his associates. Not that he was malicious in it, but that he was voluble. I mean that he could not help talking freely on any subject that was presented, regardless of whether he knew anything about it or not, coupled with a general desire to show that he knew a great deal whenever a question was asked.

I understand that Mr. Scupham had some experience after leaving the railroad company's employ, in gold mining and the like. I never heard of his having experience in any other line of geological investigation or effort than gold mining. His opinions were not generally taken seriously by his associates.

CROSS-EXAMINATION

When the road was built to Lokern from Bakersfield in 1892 I couldn't say what individual ordered it to be built. It might have been Charles F. Crocker; it might possibly have been C. P. Huntington.

When the original owners of Central Pacific Railroad and allied roads were alive, sometimes one and sometimes another would give an order and those of us who took orders under them took the orders from anyone of them who gave the order without inquiring further. If one of the actual officers of the road—which were as I might mention, during their life time, Charles **[2791]** Crocker, Charles F. Crocker, Mark Hopkins, Leland Stanford for a short time and D. D. Colton and C. P. Huntington, and afterwards for a short time Timothy Hopkins, and afterwards for a short time H. E. Huntington — if any one of these men who were then alive had given an order to me to do some work on that particular branch of the road I should have gone on and built the road without inquiring whether they gave it as an officer of the Central Pacific or as an officer of the Southern Pacific Company of California, assuming as a matter of course, that they would give it as an officer of the corporation that was building the road. In 1892 all of the roads which I called the allied roads such as the Central Pacific and the Southern Pacific Company of California, etc., were then part of the Southern Pacific Company. **[2792]** Whenever we received an order from an executive officer of the Southern Pacific Company, who was also actually an officer of a subsidiary company it was their affairs and not ours and it frequently happened that orders were given and carried out so long as they came from an executive officer of the parent company, the

Southern Pacific Company. We made no inquiry about the Southern Pacific Company having the stock ownership control of the subsidiary companies. We were under orders from these people and we obeyed them. I knew A. N. Towne very well. He was General Manager when I knew him of the Southern Pacific of California. Mr. Charles Crocker during his life time was an officer or director, in my opinion, of the Southern Pacific Company. The agricultural interests of Miller & Lux in the vicinity of Lokern were not purely grazing. In 1890 to 1892, over to the east of Lokern for a distance of several miles, perhaps four or five miles along the line of this railroad towards Bakersfield and a considerable extent North and South thereof Miller and Lux had thrown up dikes and levees and generally were starting a very large cultivated area to such an extent that we put out warehouse tracks for them and they built warehouses along side of our railroad stations, these stations being established where they specified. We built these warehouses at the time of the construction of the road. We finished the road in February, 1893, to Asphalto, building nearly continuously with a slight stop at Lokern while it was being decided whether or not to build to Asphalto. We may have stopped at Lokern a **[2793]** week. I could not say precisely, as our records have been burned. It was the asphalt mining that induced us to build a road from Lokern to Asphalto. There were very large asphalt beds at Asphalto, part of which were in good order and part of which had

been burned at some time. I volunteered to Mr. Lewers my opinion of Mr. Scupham and what I know about him. Mr. Scupham, if he were asked his opinion of me, I don't think would reply that I was somewhat of a poser and I think if he is asked about my reputation as a man of volubility upon questions of which I know nothing, that he would give me a very good character. I have no idea what he would say if he were asked whether the partition between my imagination and my knowledge was completely obliterated but I think he would say it was still quite intact. I think I am taken quite seriously at all times. If a bet were made that in a given length of time if I were asked five hundred questions that I would profess knowledge upon each and every question, the bet would not be won unless they were very simple questions on which I was well informed. I have appeared in court proceedings but it is not my custom, whenever an ex-railroad man testifies in a proceeding adverse to the railroad which has formerly employed him, to go upon the stand and attack his character. I am happy to say that the occasion rarely occurs for the truthful statement of the character that I have been obliged to make no matter how painful they were to me. It is a very disagreeable duty. I very much regret having been obliged to make them. I was asked to come here. I was not served **[2794]** with a subpoena. Previous to being Chief Engineer of the Southern Pacific Company, my title was that of Assistant Engineer. **[2795]**

ROBERT H. RUSSELL, a witness called and sworn on behalf of the defendants, testified as follows:

DIRECT EXAMINATION

I live in Los Angeles, and have lived there since the 13th of June, last; I was born in Orange, Texas, and lived in Beaumont part of 1902 and all of 1903; I was a partner in the Gladys City Power Company for a little over a year, and am now connected with the Layne & Bowler Company, of Los Angeles, California; this company is engaged in drilling wells and manufacturing pumps for pumping; I have been night foreman of the shop since the 15th of July, last year. I was 43 years of age last June.

I was acquainted with Thomas J. Griffin, and met him in Beaumont, or rather around Spindletop in the latter part of 1902, while I was connected with the Gladys City Power Company; at that time I understood that Griffin was manager of the Spindletop Power Company and had the management of all their affairs in the oil fields; left Spindletop about the middle of 1903; he was still connected with the Spindletop Power Company; I went from there to Galveston, and since that time I have not met him. The photograph which you now show me is the Thomas J. Griffin whom I knew.

(Said photograph introduced in evidence, and marked Defendants' Exhibit No. 179.)

I was acquainted with the general reputation of Thomas J. Griffin in the community of Beaumont for truth and veracity; it was rather bad; I knew

of him through his business dealings around with everybody on Spindletop; he was not to be relief upon as to what he said.

I have no interest whatever, on one side or the other, with this case, and there is no personal difference between Griffin and myself.

CROSS-EXAMINATION
OF
ROBERT H. RUSSELL

The reason I left Texas was that I was offered a position **[2796]** at Bakersfield as foreman of the shop of the Bakersfield Iron Works, by Mr. W. T. Jones, a friend of mine; I first knew Mr. Jones at Beaumont, Texas, and he was superintendent of the Texas Company in Sour Lake, and had charge of their affairs; as far as I know the Texas Company was not controlled by the Southern Pacific Company or its subsidiaries; I remained in Beaumont continuously until 1900, and then went to Galveston, Texas. I worked for O. B. Greeves, who owned the machine shops, the Orange Iron Works, and remained there from 1886 to 1890, when I went to Beaumont, where I remained off and on until 1900. When I was off I was working for different companies. After I quit work for Mr. Greeve in 1900 I went to work for Charles Clark & Company in Galveston and remained with them about two years and after I left them I went to Spindletop to operate the Gladys City Power Company. I was a partner in that company. I remained with them a little over a year

when they bought my interest out; then I went to Galveston where I became interested in a pumping proposition that I was working on, a hydraulic pump. It was owned by myself **[2797]** and two others. It was patented. My partners' names were Arnold and Sheldon. I don't know where Arnold is now and Sheldon is an accountant for the Santa Fe Railroad. I remained in that business about one year when Mr. Arnold went broke and we just quit. I was furnishing the invention against their money. I next went to Alexandria, Louisiana, and took charge of a shop over there as Superintendent for the Enterprise Iron Works. I remained there a year and two or three months, then I and another gentleman went into the second hand machinery business in that town. We were buying and selling second hand machinery. We stayed in that business five months. It was not very successful. After our failure we went back to Beaumont, Texas, and took charge of the shop for the Texas Iron Works. I was superintendent of the shop for a time for them. I remained with them about two years and it went busted. From the time I first went into business I was broke every once in awhile. Occasionally got on my uppers. Then I went to work for the Southern Well Works in Beaumont. They were manufacturing oil well supplies. I remained with them about eighteen months. I quit because the manager and I had a falling out. Some other fellow was around telling lies. The other fellow was Mr. J. A. Wiggs. He thought that I was using my

energies in other business when it really belonged to him. He made me quit. Then I went into the strainer business, the manufacture of well strainers for both oil and water wells and manufactured those for about four months. I put up my experience **[2798]** against my partners' capital the same as I did in my other ventures. Then we went broke again and I then went to work for Mr. Greeve in Beaumont and I remained there until the 29th of May of last year when I came here to Bakersfield. It was during the time that I was living in Bakersfield that I became acquainted with Mr. Griffin. At that time he was in charge of the Spindletop Power Company. They were operating an air plant on top of the Spindletop for drilling oil wells by air pressure and they were furnishing compressed air for different wells. At the time I was there there were about six hundred holes on the hill and every hole represented a Company. I don't know that the Southern Pacific had any wells at Spindletop. I do not know Mr. J. B. Treadwell. I don't believe I ever saw him about any oil wells in Spindletop. I never had any occasion to meet the gentleman. I never had any occasion to fix up any machinery for him there. I never sold him any second hand machinery. I just knew Mr. Griffin while I was at Spindletop, that was all, while I was associated with the Gladys City Power Company. The Gladys City Power Company had no business whatever with the Spindletop Power Company and I had no business relations with Mr. Griffin. The Spindletop Power Company seemed to

have all the business they could attend to. I don't know how many people they were employing. I did not become intimately acquainted with Mr. Griffin. I don't know if Mr. Griffin would recognize me if he saw me. I just had a speaking, passing acquaintance with him. When you ask me if Mr. Griffin ever did me any injury my answer is, "None whatever," and as to rancor or feeling against him, I have none whatever. I am **[2799]** sensible of no prejudice whatever against him. He was doing a very large business in Spindletop and was sure to make bad friends in a large business of that kind. Everybody does that and I do not hold it up against Mr. Griffin that he did have some people there that were not particularly friendly to him. As a general rule he was not well thought of in the community. I do not know anything personal against him myself. All I know is his reputation amongst the people who were operating and doing business in the Spindletop. I was employed day and night in the Gladys Power Company's iron works. I had charge of the property all the time. I would pass Mr. Griffin on the Spindletop at different times. We would be around different places on the hills. He was superintendent of the Spindletop Power Company and I occupied the same position with our company. I know of the occasion when Mr. Treadwell was operating some wells in his own name there. I do not know that he was operating any in his own name there that belonged to the Spindletop Company. I do not know of any compressed air fur-

nished by Mr. Griffin to these wells of Mr. Treadwell. I do not know of the occasion when Mr. E. H. Harriman, President of the Southern Pacific Company, came out and visited the fields in Spindletop while Mr. Treadwell was in charge of some wells there. The only time I ever worked for any company that I even heard had anything to do with the Spindletop, is the Bakersfield Iron Works. I couldn't say whether or not the Texas Company that I worked for while I was there had large contracts with the Southern Pacific for oil wells. The Texas Company was an oil company. While I was there I don't know whether or not **[2800]** they delivered oil to the Southern Pacific Company. The first time I heard about this case was when I read it in the paper. I think that was just before I came out here. The first time that I learned that I was wanted as a witness was when Mr. Gray asked me. It was about three or four months ago. He came to the shop about 8:30 one night and he asked me if I knew Mr. Griffin. I told him I had met him at Spindletop. He did not ask me if I knew anything against Mr. Griffin. He asked me if I knew Griffin while I was at Spindletop and he asked me in the meantime if I had ever been in Beaumont. That was all the conversation I had with Mr. Gray. Then he asked me to come up here and testify. I did not discuss with him what I would testify to at any time. The next talk I had with Mr. Gray was in the King Edward's Hotel on Fifth Street in Los Angeles. That was last Saturday, a week ago in King Edward's

Hotel. I was with him about ten minutes. At that time he asked me if I would come up here to your office at any time that they would let me know and then we talked along on a friendly line, and I bid the time of day and left. I mean to say that Mr. Gray didn't know at that time what I was going to testify to; Oh No. I shouldn't imagine he would. He had no reason to. I did not tell him at any time. I didn't tell Mr. Gray at any time, either at that conversation at King Edward's Hotel, or at my first meeting with him in the power company's office, what I was going to testify to except that I knew Mr. Griffin. That is absolutely correct and I never told anybody, not even Mr. Lewers, what I was **[2801]** going to testify to until I came here this afternoon. When I am asked that if this last statement is as true as everything else I have testified to I can only reply that I have tried to make it all as straight as I can. That is as true as the rest of it. I do not know whether Mr. Griffin would recognize me if he saw me. I was not subpoenaed to come over here. It was not friendliness to Mr. Gray that caused me to come. I never met him but twice in my life. Mr. Lewers phoned me that he would like to have me come up here at this time. He phoned me this morning. I am living with Mr. George Allerdice at his residence, 2902 Brighton Avenue. His home phone is 72,698, and the only reason I knew that Mr. Lewers knew where to phone was that I gave Mr. Gray that phone number. That is all I told Mr. Gray. The reason that I came up

to testify was that Mr. Gray asked me if I would come up here and tell what I know. I am not being paid one cent for coming up here. At least I hope not, anyway. I certainly would not accept it if it were offered me, because I am not built that way. If it was expert testimony then I would expect to be paid for it. I do not regard this as expert testimony that I am giving. I am not an expert on reputation of people nor am I an expert on truth and veracity. I am not supposed to be. I am not a minister. I volunteered to come up here. I didn't come up here to slander Mr. Griffin. I came up here for the benefit of both parties. I know Mr. James Shaw. I knew him when I was in Spindletop. He used to have charge of some of the works on Spindletop for the Rio Bravo Oil Company. I don't know what his reputation was there. I never had any dealings with **[2802]** him. I have seen him there. He never did me any injury. I never heard anything about him. I never had any business dealings with Mr. Griffin. He never loaned me any money and I never loaned him any. He was doing a very large business there at the time I knew him; he was the man of the Spindletop Power Company and a man of some large affairs during the time I knew him. I cannot give you the names of the persons in Beaumont who told me that Mr. Griffin could not be believed nor can I give you their addresses because I do not remember. It was just the general opinion. I cannot give you the name of one man who told me that Mr. Griffin could not be be-

lieved. I cannot give you the name of one man in Beaumont, Texas, or any place that I have been in in Texas that said Mr. Griffin's reputation for integrity and honesty was not good nor can I give you the address of any such man. I don't remember now who I talked with at all. It is not a fact that the first thing that I ever heard against Mr. Griffin, or knew anything about him, was when Mr. Gray came to me and told me he wanted to get somebody to come up and slander Mr. Griffin and it is not a fact that never in my life have I heard of anything derogatory to Mr. Griffin until Mr. Gray suggested it. Mr. Gray did not tell me that he wanted to do something to injure Mr. Griffin's reputation because he had testified against the Southern Pacific Company in this case and he did not tell me that he was trying to dig up something for the purpose of injuring Mr. Griffin before the court and when you ask me if I never thought of Mr. Griffin until Mr. Gray spoke about him, my answer is, "I saw all this in the paper." I had no idea **[2803]** then of coming into court to testify. I was perfectly willing to come up here and testify against a man whose reputation I have always known and it is a fact, at the same time, that the man against whom I was to testify was a man of large affairs in business during the time I knew him and a man whose business affairs were such that I did not even know him personally, never had any business relations with him of any kind. When I am asked if I ever thought of him at all in any way until I happened to see

something in the papers, or until this man Gray came up and talked to me about him, my answer is, "I first thought of him when I saw it in the papers." Excepting for the two circumstances of seeing about this case in the paper and seeing Mr. Gray, I would never have thought of Mr. Gray in any connection. I was perfectly willing to come and tell what I knew without any recompense whatever, absolutely nothing. Mr. Gray did not caution me that I might be asked the question whether or not I was going to get some reward for my testimony. I don't want any job, I have got one and I have got two or three more that don't belong to the Southern Pacific if I want them. I don't know how Mr. Gray and Mr. Lewers knew what my testimony was going to be. As a rule in all these cases they have a set line of questions to ask and I suppose they ask them the same as anybody else does. I do not imagine that they divined what I might testify about but I say most of these cases all have a set line of questions to ask. I suppose that is the best answer I can make as to how Mr. Lewers knew what I was going to testify to. I never told [2804] Mr. Gray and Mr. Lewers what I thought about Mr. Griffin or anything about it. So far as I know they might have thought that I thought Mr. Griffin was a very fine man. I talked with Mr. Lewers last Monday in the Pacific Electric Building. It was 2 o'clock in the afternoon, I believe. I was up there fifteen or twenty minutes and he didn't ask me at that time what I thought of Mr. Griffin and I didn't tell him. I didn't

tell him what I was going to say or anything about Mr. Griffin. He asked me if I would meet here, where ever you were going to have this meeting, and tell what, exactly what I had heard Mr. Griffin's reputation was on the Spindletop and I didn't tell him at that time what I thought about Mr. Griffin and I didn't tell him what I was going to say or what I thought about him and I didn't tell him at any other time. I never saw Mr. Lewers before. At no time did I tell the detective, Mr. Gray, what I was going to say about what I thought of Mr. Griffin. They didn't know anything about what I was going to say at all and so far as I know, until I appeared here this afternnon, they were in utter darkness of what I thought of Mr. Griffin because I didn't tell them or intimate to them what I thought of Mr. Griffin.

RE-DIRECT EXAMINATION.

There was not any suggestion made to me by Mr. Lewers or Mr. Gray, or anybody else, that I was to come here and testify to something that I didn't know or anything that they wanted me to testify to, or anything that was other than I knew to be a fact. There was no suggestion made to me by **[2805]** Mr. Lewers or anybody else as to some of the circumstances of the testimony that I was to give here. I was not asked at any time to testify to anything except the truth. I knew Mr. Griffin all the time on Spindletop and had met him several times, quite often. My acquaintance was not intimate. In a business way I knew him.

RE-CROSS EXAMINATION OF ROBERT H. RUSSELL

When I say I knew him in a business way I had no business transactions, personally, with him but the fact that he had a large amount of business around there. That is what I mean. I had no business relations with him whatever. **[2806]**

J. B. TREADWELL

Recalled as a Witness for Defendants.

Mr. Bass took me out several times to the Spindletop Power Company, and I met Mr. Griffin there. I do not remember how many times I met him. I would not know him today if I saw him on the street. My meeting with him had entirely escaped my memory. I did not recall having met Griffin in Los Angeles or having spoken to him on the street. I would not know him if I saw him today.

You ask whether I remember the following incident, to which Mr. Griffin testified: That in 1902 he first learned that I was not operating for myself but really for the Southern Pacific Company; that I then went to him one morning and stated that Mr. Harriman and his party from New York, on a tour of inspection would arrive at Beaumont that day, and was coming out to Gladys, and wanted to see the Southern Pacific wells flow; that he asked me to what wells I referred, and that I said: "These wells over here in the Hogswain Tract, or Southern Pacific wells; they belong to the company; I am only here operating and paying the bills, as there is

a law prohibiting the Southern Pacific Company from doing this kind of business in the State of Texas;" that he met Mr. Harriman at that time through my introduction.

I remember Mr. Harriman making a visit to Texas while I was there; Mr. Kruttschnitt telegraphed me about two or three hours before he arrived at Beaumont that if possible they wanted to go out to Spindletop. When the train came in we went out to see the wells. There were two wells that I had bought in my name for the company. We started one of the flowing. We had not at that time connected them up to distribute oil from them. There was no air connection on them; it wasn't necessary; it wasn't until the well ceased flowing. [2807]

Mr. Griffin had nothing at all to do with the operation of those wells that Mr. Harriman observed; Mr. Griffin wasn't present. That I know of. And another thing. I never introduced Mr. Griffin to Mr. Harriman. There was only one man that I did introduce to Mr. Harriman, and that was the man that I purchased the wells from. That was the only man that I introduced, and that was at the request of Mr. Harriman. I never had any such conversation with Mr. Griffin as he has related.

You read from the record that Mr. Griffin testified that I had taken several meals at his house. I don't think I ever took any meals at his house, because I don't know where his house was. I think once or twice Mr. Bass invited me to stay for lunch at the company boarding house, when I went out

with Mr. Mills to see the Spindletop Power Air Plant, if we happened to be there about noon. I don't know who ran it, whether the company or who ran it. It was on the company property and was run as a company boarding house, and the employees ate there.

Mr. Griffin testified that he had talked with me on several occasions about the lands in the Elk Hills, —what is known now locally as the Elk Hills; that the first conversation with me in regard to the California Oil fields was at my office at Gladys, and that I told him that I had just returned from the Kern River fields, and had been up on the West Side looking over lands, and had been out with a party of geologists, and had made a successful examination, and found oil sands and indications of oil from Sunset field to Coalinga, including the Elk Hills, or what was known at that time as the Buena Vista Hills. I do not recollect any such conversation. If there was a conversation, the statement is false in this as regards a geologist. I never went out with any geologist; I never employed any geologist or geologists while I was with the company. I did all the geological work myself and there is no record anywhere in the company of any geologist **[2808]** going with me at any time.

As far as the Elk Hills are concerned, I never had any conversation with him in regard to them, and as far as referring to the West Side, I don't think I had anything to say in regard to that. He has evi-

dently got things badly mixed, if we had any conversation at all.

I had never made any examination of the West Side or of the Elk Hills, or of any portion of that territory in company with any geologist, whether I was employed by the Southern Pacific or anybody else.

There was never any conversation with Mr. Griffin, or with anyone, at any time, respecting his going to California; I never asked him whether he would like to ship a rig, or said that I had several in California, or suggested that he put in test wells or do the necessary assessment work on some of the West Side vacant lands. I would not advise anybody to come out here. I never asked Griffin to go out to California, or to ship a rig to California, or to locate any lands, or to drill any lands.

No conversation ever took place respecting his going into an investment with me in the acquisition of any of the even-numbered sections of land in the West Side field of California; there was no conversation between Mr. Griffin and myself outside of the office on a little porch, wherein I said that the California oil fields had not yet started, and that our geologists had gone over it carefully; and I did not say that the proper thing for him to do was to get a rig, ship it out there at once, and that I would go in with him and put in the same amount of money that he and his partner Mr. Bass did, or that I would put up as much money as both of them, and for him to go there and take up the even sections, and that

I would attend to the legal part of it, and that they should do the work and we would divide equally.

There was no such conversation. In the first place, I **[2809]** would not make such a proposition for the very reason I could got plenty of propositions out there where people would put up all the money if I would give my time and attention to the development of it; so why should I go to work and volunteer to pay half? Then, again, as far as the geologists are concerned, we had no geologists I know of. Mr. Dumble was the geologist of the company; but I had no connection with him, no consultation with him at all.

You further say that Mr. Griffin testified that I had a large map at that time, which he presumed was two by three feet, showing the lands, starting about one township below Old Sunset, and going to Coalinga, running northwest and southeast, including the Buena Vista Hills and Lake Tulare,—a portion of Tulare—and Miller & Lux's Lake;—by Buena Vista Hills meaning what is now known as the Elk Hills, and the Buena Vista Hills,—the two groups of hills; that at that time there were unsurveyed lands shown on that map, located on the Elk Hills, about two or three townships, he did not remember just how many, but that there was quite a lot that had not been surveyed over, and which was not platted on the map; that I told him at that time that these were lands that I and geologists of the Southern Pacific Railroad had gone over, and that that was where I wanted him to go; that the

lands would be surveyed soon, when the Southern Pacific Railroad would make application for patent for the odd sections, and that I wanted him to take up the even sections.

I never had a map showing the territory from Coalinga to Sunset, a continuous map, and as I have said before, I never had any geologists with me on any of my trips. No such conversation ever took place.

Mr. Griffin did not ask me to let him have such a map; I had no such map prepared by a geologist, and did not tell Mr. Griffin that it was the railroad's property, and that I could not let it out. I had no map with a geologist's name on it, and I did **[2810]** not tell Mr. Griffin that I wanted him to go out on the land in the Elk Hills, or in that vicinity, as soon as it was surveyed.

I had nothing to do with the survey of that land, and do not recollect furnishing Mr. Griffin with a copy of any map; I did not have any such map, and never had; I never had a map showing the country continuous from Coalinga to Sunset; I myself prepared all the maps that I used. The map that I used was a map of the Kern River and also of McKittrick, which was lithographed, and I had colored part of it; I also had a map which was called the Miller & Lux's map of Kern County; the Coalinga maps were taken from the land department, which were blueprints, consisting of each township by itself,—not in one map.

In 1900 I also had two maps of McKittrick, published by a mining company and given away, and

they were scattered around, there were any number of them around the country, and I had put on several shadings showing the outcrops and the possibility of getting oil, and the general strike of the anticline.

(Said two maps introduced in evidence, and marked defendants' Exhibits numbers 180 and 181, respectively.)

I never had a map about two-thirds the size of the railroad map, with the townships, sections, and ranges marked, showing the Buena Vista Lake and Lake Tulare, the Buena Vista Hills and foothills of the mountains on the West Side, and showing anticlines; I did not have any such map, as testified by Mr. Griffin, or a map showing the name of a geologist, and bearing references to the anticlines or probable depths in different places in figures where oil would be struck.

There was no conversation in which I asked him to come to California and drill vacant government land adjacent to the Southern Pacific lands or lands they were going to acquire, near Coalinga, or near McKittrick; I did not point out any such lands to him on a map in section 30-23; I would not have pointed out **[2811]** such land, because I had no confidence in any of that country down there. If I was going to advise anyone to come out here to operate, there is many places that is more accessible and sure of getting oil than to go wildcatting off to one side, as the Elk Hills is so situated. It is off the trend altogether.

I made no locations for my own benefit in any part of the territory which I held. I made no location in the McKittrick district in 1900, from which I afterwards received royalties, and which was called the Last Chance; I subsequently sold out my interest. Subsequent to 1900, in 1902 or 1903, I did not think there was any other vacant land in the vicinity of McKittrick that offered a prospect of getting oil.

I did not invite Mr. Bass or anybody else in Texas to come to California and drill wells or locate lands in the oil fields, or in any other part of that field; I would not have advised anybody that came to California to go into the Elk Hills at that time. Thomas J. Griffin did not that I know of do any construction work for me under specifications for the Southern Pacific Company; he made no trip out of Texas to Louisiana or to any States north of that for me, or on transportation procured by me.

CROSS-EXAMINATION OF J. B. TREADWELL

I do not remember the year when I placed the buff color and the other colors on the map, Defendants' Exhibit 180; it was at the time when I was working up the McKittrick district, determining the strike of the anticlinal, and the oil deposits on the outcrop; it might have been in 1900 or 1901; I quit the employ of the Southern Pacific Company as field man and geologist in 1903; those colors were placed on the map before I was superseded by Mr. Dumble,

in 1903; I could not say when the pencil line described in my direct examination was placed on Defendants' Exhibit 181; it was not placed there after I testified in this case; the Southern Pacific Company, I guess had the originals of those maps; **[2812]** they ought to have; it was not my custom to make duplicates of maps and give the originals to the company; I made these maps, and I think I delivered them to Mr. Dumble, copies from maps that I had; I just **[2813]** colored them over for his benefit; the maps constituting Exhibits 180 and 181 have been in my possession since they were made; I had them at San Francisco, and shipped them to Los Angeles, I think just before the fire, in 1906; they were in the same condition as at present; as stated before I do not remember when I put on the mark indicating the anticlinal on Exhibit 181; the buff color was placed on Exhibit 180 with a brush; I always had colorings, but I think they were left in the field; when I testified before in this case that I prepared maps showing the development of oil in various places in the territory of McKittrick, and that the duplicate maps were destroyed in my residence in San Francisco during the earthquake and fire of 1906, together with field notes running back a great many years, I testified the truth; I remember being in your office when you asked if I had any of those old maps, and I may have stated that I would make a diligent search but that I knew that everything had been destroyed in the fire of 1906, and that I went to my house and searched, but re-

ported that I found nothing; I did not to my knowledge have them in my possession at that time; I have no blank maps like that, gotten out by the company whose name appears on the margin,—Virginia Oil Company.

On Exhibit 180, describing the lands indicated on the map in buff color where I say there is oil, starting at the northwest corner, it runs diagonally northwest and southeast through Section 11, about 40 to 50 chains wide; continuing in a southeasterly direction, averaging about the same width, in section 12, 13 and portion of Section 10, Section 24; no, here is 10 over here; it would be 30-21 and 30-22; that was my opinion in 1901 and '02 where the oil was exposed and showed at that time, when I first went out there; I do not know whether the original of that map went to the Southern Pacific Company or not; I made a series of those maps showing a section like that,—the course of the strike in this township; I sent Mr. Kruttschnitt a copy like that [2814] map; it was my custom to give the originals to the company and keep the duplicates for myself.

On Defendants' Exhibit 116 I have placed the apex of the anticlinal commencing at the northerly portion of Section 11 in 30 South, 21 East; it begins in the northern portion of Section 11, a little east of the quartersection corner, on the north boundary, and runs then in a southeasterly direction, passing through Sections 12 and 13 of said township; then into Section 10, and through 20, 28 and 34, in township 30 South, 22 East, and into Section

2 of 31 South, 22 East, reaching the southeast corner of Section 2 of that section,—township; this map was made about 1901 or 1902; the legend is in my handwriting, and shows the information as I knew it then, as to oil.

This Exhibit 180 shows information that I obtained at that time; it was not made from memory, or made after 1904 because I have not been there since 1904; Mr. Dumble ought to have a map similar to this.

The legend on Exhibit 115 reads: "All shaded tracts reserved from sale because in or near oil territory. Tracts shaded **green** leased for oil development. Tracts shaded **blue** leased for oil storage. Tract shaded **yellow** operated for oil by S. P. Co." That is not in my handwriting.

The portions shaded in 30-23 are sections 3, 5, 7, 9, 13, 14, 17, the northwest quarter of 19, and all of 31.

The portions shaded in 30-24, are 1, 7, 19, 21, 23, 24, 26 and 35.

The portions shaded in 31-23 are sections 5, 9, east half of 17, 15, south half of 13, 21, 23, 25, 27, 29, 33, and 35.

The portions shaded in 31-24 are the southwest quarter of 7, 17, 15, 13, 14, 19, 20, 27, 31, 33 and 36.

As to whether on Defendants' Exhibit 115, Section 7 in 30-24 is shaded, defendants object, on the ground that it is not **[2815]** cross-examination as to any matters brought out in direct examination.

Not all of it is shaded; it is three-quarters of it,

in the north half and the south half; all the odd sections that appear to be surveyed in 30-23 are shaded with the exception of section 1, three-quarters of 17, and one-quarter of 19.

The map prepared by Mr. Luke indicates in itself that sections 7, 17, 19, 21, 23, 25, 27, and 35 of 30-24, appear to be in the Elk Hills; this is Defendants' Exhibit 16; in this exhibit nearly all of township 30-23 is in the Elk Hills, with the exception of the southwest half of Section 1; the northeasterly part is outside, and about half of the southwest portion of section 31.

On the map, Exhibit 115, it is indicated that there are in 30-24 at least eight sections shaded in the Elk Hills as tracts reserved from sale because in or near oil territory; it also shows that all the portions of 30-23 which are in the Elk Hills were shaded as reserved from sale because in or near oil territory, except what appear to be unsurveyed by this exhibit. In my former testimony I stated that I got the data or information upon which I made reports respecting withdrawal, leasing or sale of railroad lands in Kern County from personal examination; that is correct, and in addition to that, in making these reservations I made them in a blanket form away beyond where I ever expected to get any oil; I think I made the original colorings on the map; it looks like my work; I made the shadings from reports which I sent in from the field, not minutely, but taking a general trend; and went east because we could not tell at what depth we would get oil; the

VOL. VI.

TRANSCRIPT OF RECORD.

SUPREME COURT OF THE UNITED STATES.

OCTOBER TERM, 1918.

No. 179

THE UNITED STATES OF AMERICA, APPELLANT,

vs.

THE SOUTHERN PACIFIC COMPANY ET AL.

FILED AUGUST 2, 1918.

(26671)

anticlinal might rise or it might dip under beyond the reach of any drilling; by personal investigation I do not mean that I went out over the land in every instance; I went over some of the land in the Elk Hills; I think that report was **[2816]** put in before I went over them; it was put in about the time that I asked for the withdrawals; about 1900.

I know a man by the name of John Jean, and one by the name of L. G. Sarnow; they worked under me for the Southern Pacific Company, as oil well drillers; I do not remember Mr. Jean coming to me, as you say, with a sample of oil sand in 1899; he may have, but I do not remember any particular instance of it; I do not remember making a trip by train in company with Mr. Jean and Mr. Sarnow to Buttonwillow, from Bakersfield, in December, 1899; I do not remember going out that way, because it would be a good deal handier to go from my camp right over there; I may have made the trip as you state, but I have no recollection of it; I did not state to anyone that those lands in section 33, of 30-24 had been surveyed by the Government but had not been officially accepted or approved, because I don't think I knew anything about it; I did not explain to them that because I wanted to justify the location with reference to petroleum lands which would fall within indemnity limits of the grant of the Southern Pacific Company; I would not say such a thing as that; that is not true; I may have made out those notices myself in December, 1899, I don't know; the notices will show for themselves; I will not say under oath

that I did not put up monuments there, but I have no recollection of it; it would not be necessary; if the notices so show, it is true that I placed on them the names of J. B. Treadwell, May Treadwell, E. D. Treadwell, C. C. Boynton, F. Boynton, W. L. Hardison, Guy Hardison and R. S. Aston, who were all, except Aston, related to me in some way.

When Mr. Lewers asked me how my name came to be on these location notices, I stated that several drillers had been over and had an idea it was oil land and suggested that I join with them in making the locations; that I said "All right; go ahead"; that they made the locations and then I went over afterwards to see, and my conclusion was that I did not want it; I be- **[2817]** lieved that to be the facts of the case; that those notices were written out by me and posted by them, and not only that, but others; the map showed at that time that the lands were unsurveyed; I believed that the map correctly showed the state of those lands; they might have been officially surveyed, but not approved; section 33 is an odd section; I knew that if it was not mineral land and no one had filed on it, the railroad company would have a right to select it, provided it fell within none of the exceptions contained in the grant; I may have explained that to Jean and Sarnow, I don't know; I made a location for petroleum on Section 33, in December, 1899, upon an odd numbered section, which, if it fell within none of the exceptions, might be selected by the railroad company as agricultural land; I do not remember any-

thing about finding that N. C. Farnham, H. A. Blodget, T. J. Packard, Wagy, Roper and others had put up location notices on that section December 14th, as you ask; I did not know that Mr. Farnham had filed his location notice December 15th on that section; I did not antedate my location; Mr. Farnham did not say that I did so; I did not have any conversation with others about it.

The location notice just mentioned, and found in the county records of Kern County, California, reads as follows: "Notice of location of the northwest 33 placer mining claim, embracing the northwest quarter of said Section 33. Location December 13, 1899, by J. B. Treadwell, May Treadwell, E. D. Treadwell, C. C. Boynton, F. Boynton, W. L. Hardison, Guy Hardison, and R. S. Aston. Recorded December 19, 1899, in Book 18 of Mining Records, at page 402, Records of Kern County, California."

That location having been made in the month of December, 1899, I was entitled to expect that to hold good for one year, providing the proper assessment labor was performed upon it; at that time I evidently believed that it was mineral land; I have often been disappointed in locations; I afterwards advised Mr. **[2818]** Sarnow and Mr. Jean not to do any further assessment work on that land, that I did not consider it good mineral land; I did not do so because it was railroad land; I do not know that I had an argument with Mr. Jean, who thought as I did when the location was made, that that land was surveyed but not officially accepted, and there-

fore that those locations would take priority of the selection by the railroad company; I may have said that; I don't know as I did; I did not advise the railroad company to select that land under an agricultural grant; I did not locate for the purpose of keeping other locators off so that the railroad could get it; I would not take that land as a gift, today; not to drill a well on it.

Referring to a "notice of location on the southwest quarter of 36 placer mining claim, embracing the southwest quarter of said section 33, located December 13, 1899, by L. G. Sarnow, F. J. Sarnow, J. E. Wible, D. Burkhalter, Barbara Sarnow and Grant Dewlaney, recorded December 19, 1899, in Book 18 of Mining Records, at page 402, Records of Kern County, California", as you read it, I suppose that was made at the same time that we made it upon the northwest quarter.

Reading notice of location of the southeast of 36 placer mining claim, embracing the southeast quarter of said Section 33, reading as follows: "Located December 13, 1899, by C. H. Quincy, Samuel Sweitzer, D. Burkhalter, John Jean, L. G. Sarnow, F. J. Sarnow, May Sarnow and Barbara Sarnow, recorded December 19, 1899, in Book 18 of Mining Records, at page 402, Records of Kern County, California," I think very likely that location was made at that time; I have no recollection of the thing.

You call my attention to another "notice of location, of the northeast 36 placer mining claim, embracing the northeast quarter of said Section 33,

located December 13, 1899, by Grant Dewlaney, J. B. Treadwell, W. L. Hardison, Guy L. Hardison, E. D. **[2819]** Treadwell, D. Burkhalter, C. C. Boynton, and L. G. Sarnow, recorded December 19, 1899, in Book 18 of Mining Records, at page 403, Records of Kern County, California"; I suppose that was made on the date of the location; I expect it was made at the same time.

I do not know who J. E. Wible is; there are several Wibles in Bakersfield; one is president of the bank, and there are two brothers who had a laundry there; J. Burkhalter is superintendent of the Southern Pacific, with headquarters at Bakersfield; he was known to me at that time, but was not associated with me in business with the Southern Pacific Company; we were employees of the Southern Pacific at the same time, however; Samuel Sweitzer was a friend of L. G. Sarnow; I do not know who C. H. Quincy was; I do not know whether he was a friend of either Jean or Sarnow; Mr. Dewlaney was a man working in Summerland, a friend of mine, a friend of Sarnow's, and all; I do not know by whom his name was suggested; my wife's name, my son-in-law's name, my nephew, and son-in-law's brother were all suggested by me.

Mr. Mills: Mr. Lewers, I am going to offer, at this point in the cross-examination, a certified copy, exemplified under the seal of the General Land Office, of List No. 86, of lands selected by the Southern Pacific Railroad Company within the indemnity limits, filed October 29, 1900, at the Visalia Land

Office, and I will ask that the same be incorporated into the record.

The Certified copy of List No. 86, Lands selected by the Southern Pacific Railroad Company, last referred to and offered in evidence is marked "Plaintiff's Exhibit 5Y-L.L.", and is as follows:

"4-207

B. DEPARTMENT OF THE INTERIOR.
GENERAL LAND OFFICE,
MEL Washington, D. C., September 27, 1912.

I hereby certify that the annexed copy of List No. 86, lands selected by the Southern Pacific Railroad Company, Visalia, California, is a true and literal exemplification from the records in this office. **[2820]**

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and caused the seal of this office to be affixed, at the City of Washington, on the day and year above written.

Fred Dennett,
Commissioner of the General Land Office.

(Seal):

UNITED STATES
GENERAL LAND OFFICE)

F-1-
Oct. 30/148736

UNITED STATES LAND OFFICE
Visalia, California,
Oct. 29, 1900.

List No. 86.

LANDS SELECTED
BY THE
SOUTHERN PACIFIC RAILROAD COMPANY,
Indemnity Limits. Posted Jan. 6, 1901.
E.G.M.

Filed Oct. 29, 1900.
Geo. W. Stewart, Register.

2 L 116

—— of Base Line and —— of ——-Principal Meridian. Tracts within 20 miles of the line of said Railroad in lieu of which the selected tracts are taken.

PART OF SECTION.	No of Section	No of Town.	No of Range.	**AREA.** Acres. 100	REMARKS.
	F-2-				Br & R

[2821]
G L 90 (10-30-95-250)
(Old G 153)

Office of the Southern Pacific Railroad Company.)
)
San Francisco, California.)

I, Joseph L. Will cutt, Secretary of the Southern Pacific Railroad Company, do hereby certify that JEROME MADDEN was appointed Land Agent of the said Southern Pacific Railroad Company by the Board of Directors of said Company, at a meeting held on the tenth (10th) day of May, A. D., 1876, and that since that time he has been continuously,

and is now, the Land Agent of the said Southern Pacific Railroad Company.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the Corporate Seal of the said Southern Pacific Railroad Company, the 27th day of October, A. D. 1900.

(SEAL) Joseph L. Willcutt,
Secretary of the Southern Pacific
Railroad Company.

2L 116 Br & R

—— of Base Line and —— of ——Principal Meridian. Tracts within 20 miles of the line of said Railroad in lieu of which the selected tracts are taken.

PART OF SECTION	No. of Section	No. of Town.	No. of Range.	**AREA** Acres 100	REMARKS

[2822]

3

LIST OF LANDS
IN THE
Visalia Land District, California,
SELECTED BY THE
SOUTHERN PACIFIC RAILROAD COMPANY,
OF CALIFORNIA.

THE UNDERSIGNED, the duly authorized Land Agent of the Southern Pacific Railroad Company, of California, under and by virtue of the Act of Congress, approved July 27, 1866, entitled, "An Act granting lands to aid in the construction of a Railroad and Telegraph line from the States of Missouri

and Arkansas to the Pacific Coast," and the further Act approved July 25, 1868, entitled, "An Act to extend the time for the construction of the Southern Pacific Railroad in the State of California," and the joint Resolution of Congress, approved June 28, 1870, concerning the Southern Pacific Railroad of California," and under and in pursuance of the rules and regulations prescribed by the Commissioner of the General Land Office, hereby makes and files the following list of selections of public lands claimed by the said Company as inuring to it, and to which it is entitled under and by virtue of the grants and provisions of the said Acts of Congress, and the location of the line of route of the Railroad and Telegraph of said Company; being in part for the Sixth (6th) section (Twenty (20) miles) of the same, commencing at **[2823]** Lerdo ——— and ending at Summer ——— which said section of road and telegraph has been duly accepted by the President of the United States, as provided in the aforesaid Acts and Joint Resolution of Congress. The selections being particularly described as follows:———

Jerome Madden,
Land Agent of the Southern Pacific
Railroad Company.

(1-15-00-250) F-3-

RAILROAD LIST

South of Base Line and East of Mount Diablo Principal Meridian.

List of Selections made at Visalia, California, upon this Indemnity List No. 86.

NO. PART OF SECTION	No. of Section	No. of Town	No. of Range	AREA Acres 100	Fees of Register and Receiver REMARKS
All	29	30 S.	24 E.	640.00	
E.½	31	"	"	320.00	
E.½ of N.W.¼	31	"	"	80.00	
E.½ of S.W.¼	31	"	"	80.00	
Fracl. S.W.¼ of N.W.¼	31	"	"	41.23	
Fract. S.W.¼ of N.W.¼	31	"	"	41.30	
Fracl. N.W.¼ of S.W.¼	31	"	"	41.38	Suppl Claim
Fracl. S.W.¼ of S.W.¼	31	"	"	41.46	List 89
E.½	33	"	"	320.00	
W.½	33	"	"	320.00	
		Total		1925.37	$26.00

[2824]

F-4- 2 L 116

South of Base Line and East of Mount Diablo Principal Meridian.

Tracts within 20 miles of the line of said Railroad in lieu of which the selected tracts are taken.

PART OF SECTION	No. of Section	No. of Town	No. of Range	Area Acrs. 100	Remarks
All	29	22 S.	23 E.	640.00	
E.½	31	"	"	320.00	
E.½ of N.W.¼	31	"	"	80.00	
E.½ of S.W.¼	31	"	"	80.00	
Lot 1	31	"	"	35.12	
Lot 8	9	24 S.	22 E.	48.00	
Lot 7	9	"	"	47.45	
Lot 2	31	22 S.	23 E.	35.28	
E.½	19	"	"	320.00	
W.½	33	"	"	320.00	
		Total		1925.85	

Meridian

F-5- (9-20-95-250

G L 92 5- Br & r

Old G. 111.)

STATE OF CALIFORNIA—City and County of San Francisco—ss.

I, JEROME MADDEN, being duly sworn, depose any say: that I am the Land Agent of the Southern Pacific Railroad Company, that the foregoing list of lands which I hereby select is a correct list of a portion of the public lands claimed by the said Southern Pacific Railroad Company as inuring to it, to aid in the construction of the railroad of said Company from Lerdo to Sumner for which a grant of lands was made by the Acts of Congress approved July 27, 1866, **[2825]** July 25, 1868, and June 28, 1870, as aforesaid, that the said lands are vacant, unappropriated, and are not interdicted mineral nor reserved lands; and are of the character contemplated by the grant, being within the limits of the exterior ten (10) miles, Indemnity Belt, on each side of the line of route for a continuous distance of Twenty (20) miles, being for the sixth (6th) section of said road, starting from a point in N. E. ¼ Sec. 9, T. 28 S., R. 26 E., M. D. B. & M., and ending at a point in N. E. ¼, Sec. 5 T. 30 S., R. 29 E., M. D. B. & M. and that the specific losses for which Indemnity is claimed are truly set forth and described in

said list, and that said losses have not heretofore been indemnified in any manner.

Jerome Madden. (SEAL)

Sworn to and subscribed before me this twenty-seventh (27th) day of October, 1900. Witness my hand and Notarial Seal.

(SEAL) E. B. Ryan.

Notary Public in and for the City and County of San Francisco, in the State of California.

-5-

-5-

Meridian UNITED STATES LAND OFFICE,)
)
Visalia, Cal., Oct. 29, 1900.)

We hereby certify that we have carefully and critically examined the foregoing list of lands claimed by the Southern Pacific Railroad Company, under the grant to the said Southern Pacific Railroad Company, by Acts of Congress, approved July 27, 1866, July 25, 1868, and June 28, 1870, above mentioned, and selected by JEROME MADDEN, **[2826]** the duly authorized agent; and we have tested the accuracy of said list by the plats and records of this office, and that we find the same to be correct; and we further certify that the filing of said list is allowed and approved, and that the whole of said lands are surveyed public lands of the United States, and within the limit of the exterior ten (10) miles, Indemnity Belt, on each side, and that the same are not, nor is any part thereof, returned and denominated as mineral land or lands, nor claimed

as swamp lands; nor is there any homestead, preemption, State or other valid claim to any portion of said lands on file or record in this office.

We further certify that the foregoing list shows as assessment of the fees payable to us allowed by the Act of Congress, approved July 1, 1854, and contemplated by the circular of instructions dated January 24, 1867, addressed by the Commissioner of the General Land Office, to Registers and Receivers of the United States Land Offices; and that the said Company have paid to the undersigned, the Receiver, the full sum of Twenty-six ($26.00) Dollars, in full payment and discharge of said fees.

Geo. W. Stewart, Register.

O. Scribner, Receiver.

Meridian

(2-11-97-200)	F-6-	2.L.27	Br & r 1900

San Francisco, Cal., October 27th.

The Southern Pacific Railroad Company, offers to ——— pay —— under protest the expense of surveying the lands selected in the within list, because it claims to **[2827]** be exempt from such payment by provisions of the grant of lands to it by Congress.

Jerome Madden,
Land Agent, Southern Pacific R. R. Co.

UNITED STATES SURVEYOR-GENERAL'S OFFICE,

San Francisco, California.

————————189.

I, ———————— Surveyor General for the United States, in and for the State of California, hereby report and certify that the Southern Pacific Railroad Company has this day filed with me, at San Francisco, a duplicate certificate of deposit ———, dated ———, to the credit of the United States, showing that the sum of $——— has been deposited as cost of survey, and $——— for office work, and that the said sums are the correct amount of the cost of survey and office work for the lands mentioned and described in the list of lands hereto annexed, to the extent of said list.

Survey,————————

OFFICE work, ———$

IN TESTIMONY WHEREOF, I have hereunto set my hand and Official Seal.

————————....

SURVEYOR-GENERAL.

Meridian F-7-

STATE OF CALIFORNIA—City and County of San Francisco—ss.

Jerome Madden, being duly sworn, deposes and says that he is now and has been continuously since the 10th day **[2828]** May, 1876, the Land Agent of the Southern Pacific Railroad Company, that he has caused the lands selected in said Company's Visa-

lia List No. 86, indemnity limits, to be carefully examined by the agents and employes of said Company as to their mineral or agricultural character, and that to the best of his knowledge and belief, none of the lands returned in said list are mineral lands.

Jerome Madden,

Subscribed and sworn to before me this 27th day of October, 1900.

E. B. Ryan,

Notary Public in and for the City and County of San Francisco, State of California."

Mr. Mills—I shall also offer, at this time, a certified copy, duly authenticated and exemplified under the seal of the General Land Office, of approved clear list Supplemental No. 89, covering the same lands, which I shall ask to have incorporated into the record as it stands.

The certified copy of approved clear list, Supplemental No. 89, Southern Pacific Railroad, last referred to and offered in evidence is marked "Plaintiff's Exhibit No. 5 Z—LL", and is as follows:

"4-207

B. DEPARTMENT OF THE INTERIOR,
GENERAL LAND OFFICE,

Washington, D. C., September 27, 1912.

I hereby certify that the annexed copy of approved clear list Supplemental No. 89, Southern Pacific Railroad, is **[2829]** a true and literal exemplification from the said list in this office.

IN TESTIMONY WHEREOF I have hereunto subscribed my name and caused the seal of this office to be affixed, at the city of Washington, on the day and year above written.

Fred Dennett,
Commissioner of the General Land Office.

(SEAL)

UNITED STATES
GENERAL LAND
OFFICE)

Suppl. List No. 89
Southern Pacific Railroad Lands,
Indemnity Limits,
Visalia Land District,
California.

Surveys paid Cf D 737-F. C. L. June 7/02 copy to R & R F. C. L.

Jany 18/02 to R & R to post & publish under Dept. Circ. July 9/94 (19 L. D. 21 F .C. L.

April 11/02-63765 R & R transmit evidence of publication & posting. F.C.L.

June 20/02-106835 R & R. Ack- receipt. F.C.L.

Approved May 23, 1902.
Patent 111 issued May 28, 1902.
Recorded Vol. 25 pp 415 to 418 incl.
Posted June 17, 1902
G. E. F.

Form 1-National Banks

No. 747 THE CENTRAL NATIONAL BANK OF WASHINGTON CITY,

Washington, D. C., May 20, 1902.

I certify that Southern Pacific R. R. Co. has this day deposited to the Credit of the TREASURER OF THE UNITED **[2830]** STATES One hundred and thirty nine ———39 Dollars, on account of Cost of Survey (field & office work) of 1925.37 acres selected in Visalia list 86 and put by G. L. O. into Clear List Supplemental 89 for which I have signed triplicate receipts.

field $129.77 M. B. Ruff, Cashier.
$139.39 office 9.62

139.39

DUPLICATE The depositor will send this day by the first mail to the Commissioner of Patents, if the deposit is for patent Fees; to the Commissioner of Internal Revenue, if for Internal Revenue; to the Commissioner of the General Land Office, if for Sales of Public Lands; to the Surveyor General, if for Surveys of Public Lands; to the Treasurer U. S., if for Semiannual duty or Transfer of Funds.

DEPARTMENT OF THE INTERIOR,
GENERAL LAND OFFICE,
May 22, 1902.

WHEREAS, by the Act of Congress approved July 27, 1866, and Joint Resolution of June 28, 1870,

'to aid in the construction of a Railroad and Telegraph Line from the States of Missouri and Arkansas to the Pacific Coast", and to secure to the Government the use of the same for Postal, Military, and to other purposes, authority is given to the Southern Pacific Railroad Company of California, a corporation existing under the laws of said state. to construct a Railroad and Telegraph Line under certain conditions and stipulations as expressed in said Act, from the City of San **[2831]** Francisco, to a point of connection with the Atlantic and Pacific Railroad near the boundary line of said State, and provision is made for granting to the said Company, 'every alternate section of public land, not mineral, designated by odd numbers, to the amount of ten alternate sections per mile on each side of said Railroad, on the line thereof, and within the limits of twenty miles on each side of said road, not sold, reserved, granted or otherwise appropriated by the United States, and free from pre-emption or other claims or rights at the time the line of said road is definitely fixed,', and ——————————

WHEREAS, it is further provided by said Act, that 'whenever prior to said time any of said sections or parts of sections shall have been granted, sold, reserved, occupied by homestead settlers, or pre-empted, or otherwise disposed of, other lands shall be selected by said Company in lieu thereof, under the direction of the Secretary of the Interior, in alternate sections and designated by odd numbers, not more than ten miles beyond the limits of

said alternate sections, and not included in the reserved numbers, and ———————————

WHEREAS, official statements from the Secretary of the Interior have been filed in the General Land Office, showing that the Commissioners appointed by the President under the provisions of the fourth section of the said Act of July 27, 1866, have reported to him that the line of said railroad and telegraph from San Jose to Tres Pinos and from Alcalde to Mojave, together comprising two hundred **[2832]** and fifty-two miles and four hundred and seventy-nine thousandths of a mile, has been constructed and fully completed and equipped in the manner prescribed by said Act of July 27, 1866, and accepted by the President, and ———————————

WHEREAS, it is shown by certain papers filed in the office of the Commissioner of the General Land Office by the duly authorized attorney of the Southern Pacific Railroad Company with his letter of April 30, 1902, that the said Southern Pacific Railroad Company is the successor by consolidation of the Southern Pacific Railroad Company of California, and ———————————

WHEREAS, the following tracts have been selected under the Acts aforesaid, by the duly authorized land agent of the said Southern Pacific Railroad Company of California, or its successor, as shown by his original lists of selections approved by the local officers, and now on file in the General Land Office, and ———————————

WHEREAS, the said tracts of land lie coterminous to the constructed line of said road, and are particularly described as follows, to wit: ————

[2833]

4-293 F-4

South of base line and East of Mt. Diablo Meridian, California.

Parts of Section	Section	Town	Range	Acres	Parts of Section	Section	Town	Range	Acres
List No. 86, Visalia, October 29, 1900								Mt. Diablo Mer.	
		S	E		In lieu of		S	E	
All	29	30	24	640.00	All	29	22	23	640.00
E.½	31	"	"	320.00	E.½	31	"	"	320.00
E.² N.W.⁴	"	"	"	80.00	E.² N.W.⁴	"	"	"	80.00
N.W.⁴ N.W.⁴ all	"	"	"	41.23	Lot No. 1	"	"	"	35.12
S.W.⁴ N.W⁴	"	"	"	41.30	Lot No. 8	9	24	22	48.00
E.² S.W.⁴	"	"	"	80.00	E² S.W.⁴	31	22	23	80.00
N.W.⁴ S.W.⁴	"	"	"	41.38	Lot No. 7	9	24	22	47.45
				645-37					
S.W.⁴ S.W.⁴	"	"	"	41.46	Lot No. 2	31	22	23	35.28
E.½	33	"	"	320.00	E.½	19	"	"	320.00
				640					
W.½	"	"	"	320.00	W.½	33	"	"	320.00
List No. 56, Visalia, May 10, 1892——									
S.² S.W.⁴	35	25	29	80.00	S.² S.W.⁴	29	18	24	80.00
				2005.37					2005.85
				2005.37					2005.85

General Land Office
Railroad Division, December 2, 1901.

We hereby certify that we have examined the foregoing list in connection with the plats and records of this office and have found the tracts described therein to be free from adverse claims and lying within the indemnity limits of the grant to the Southern Pacific Railroad, while the tracts designated as bases for said selections were found to have been actually lost to said grant and not used heretofore as [2834] bases for any approved selections.

We, therefore, certify that so far as shown by this examination the selected tracts are subject to approval and patent to said Company.

F. C. Lord,
F. I. Wood,
Examiners.

S. S. Marr,
Chief of Division.

Mineral Division, December 23, 1901.

This certifies that the tracts selected herein are not in conflict with, but are within six miles of mining claims of record in this office.

Approved:

C. A. Hollingsworth,
Examiner.

H. P. Pettet,
Chief of Division

F-5-5
of base line and of Principal Meridian

RAILROAD LIST.

Parts of Section.	Section.	Range.	Acres.

Parts of Section.	Section.	Range.	Acres.

General Land Office,
Division of Swamp Lands,
Washington, D. C., January 3, 1902.

This certifies that the foregoing list, Supplemental List No. 89, Southern Pacific Railroad Company lands, embracing 2005.37 acres, has been carefully examined in connection with the swamp land records of this office, and that the same has been found to be free from conflict. Sam'l W. Snow,

Edmond Mallet, Examiner.
Chief of Division. **[2835]**

Mineral Division, May 13, 1902.

This further certifies that the tracts selected herein have been published under the mining regulations without protest or objection.

Approved: C. A. Hollingsworth.
H. P. Pettet,
Chief of Division.

Accounts Division, May 14, 1902.

Expense of survey & Office work on Lands described in the foregoing list.

Railroad Selection 2005 37 Acres

Field work $132.14

Office work at 115 per acre 10 02 $142 16

A. B. White

Act'g. Chief of Division.

Railroad Division, May 15, 1902.

Reexamined and found free from adverse claims.

Approved: F. C. Lord,

S. S. Marr, Examiner.

Chief of Division.

F-6

NOW, THEREFORE, as it has been found on a careful examination in connection with the authenticated map on file in the General Land Office, of the survey of the Southern Pacific Railroad route, that the foregoing lands fall within the thirty miles lateral limits of said route, **[2836]** and that the said lands, so far as the records of the General Land Office show, are free from conflict, it is hereby recommended that the tracts described, covering two thousand and five acres and thirty seven hundredths of an acre, be approved and carried into patent, as lands falling within the grant by the Acts aforesaid, to the said **Southern Pacific Railroad Company,** as successor in interest to the Southern Pacific Railroad Company of California, excluding, however, from the approval and from the transfer in the patent that may issue, **'All Mineral Lands,'** should any such be found

in the tracts aforesaid, but this exclusion, according to the terms of the Statute, 'shall not be held to include iron or coal.'

Binger Hermann,
Commissioner. S. S. M.

To the Honorable
Secretary of the Interior.

J. I. P. Department of the Interior,
Washington, D. C.
May 23, 1902.

Approved: covering two thousand and five acres and thirty seven hundredths of an acre

E. A. Hitchcock,
Secretary of the Interior."

Mr. Mills—At this time I shall offer a certified copy, duly exemplified and authenticated, under the seal of the General Land Office, of patent No. 111, from the United States of America to the Southern Pacific Railroad, covering the lands embraced in the two selection lists—that is, in **[2837]** Selection List 86 and Supplemental List 89—namely, Section 29, 31 and 33, of Township 30 South, Range 24 East, with reference to the Mount Diablo Meridian and its base line; these being lands with reference to which the witness J. B. Treadwell has testified on cross-examination, in part. I may say that the certified copy of the patent shows a transfer of lands other than those specifically mentioned, but includes those which I have described. This is offered for the purpose of supplying any deficiency with reference to which counsel for defendants claim that there is no

evidence that these lands were ever selected or patented by or to the Southern Pacific Railroad Company, defendant in this case.

The certified copy of patent 111 last referred to and offered in evidence is marked "Plaintiff's Exhibit 6A—L. L.", and is as follows:

"4-207

B. DEPARTMENT OF THE INTERIOR
GENERAL LAND OFFICE,
Washington, D. C., September 30, 1912.

I hereby certify that the annexed copy of patent is a true and literal exemplification from the record of patents in this office.

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and caused the seal of this office to be affixed, at the city of Washington, on the day and year above written.

S. V. Proudfit,
Acting Commissioner of the General Land Office.

(SEAL:
UNITED STATES
GENERAL LAND
OFFICE) [2838]

———oOo———

Ex'd C. W. B. A. M. S. 41

Patent No. 111

Southern Pacific Railroad **Lands.**
Indemnity **Limits.**
Visalia Land **District California**

The United States of America

To all to whom these presents shall come, Greeting:

WHEREAS, by the Act of Congress approved July 27, 1866, and Joint Resolution of June 28, 1870, 'to aid in the construction of a Railroad and Telegraph Line from the States of Missouri and Arkansas to the Pacific Coast,' and to secure to the Government the use of the same for Postal, Military and other purposes, authority is given to the Southern Pacific Railroad Company of California, a corporation existing under the laws of said State, to construct a Railroad and Telegraph line under certain conditions and stipulations, as expressed in said Act from the City of San Francisco to a point of connection with the Atlantic and Pacific Railroad, near the boundary line of said State, and provision is made for granting to the said Company, 'every alternate section of public land not mineral, designated by odd numbers, to the amount of ten alternate sections per mile on each side of said Railroad, on the line thereof, and within the limits of twenty miles on each side of said road, not sold, reserved, granted, or otherwise appropriated by the United States, and free from pre-emption or other claims or rights at the time the line of said road is definitely fixed,' and————————[2839]

F-1- **Whereas,** it is further provided by said Act, that 'whenever prior to said time any of said sections or parts of sections shall have been granted, sold, reserved, occupied by homestead settlers, or pre-empted, or otherwise disposed of, other lands shall be selected by said company in lieu thereof, under the direction of the Secretary of the Interior, in alter-

nate sections, and designated by off numbers, not more than ten miles (111-415) beyond the limits of said alternate sections, and not included in the reserved numbers, and ———————————

Whereas, official statements from the Secretary of the Interior have been filed in the General Land Office showing that the Commissioners appointed by the President, under the provisions of the fourth section of the said Act of July 27, 1866, have reported to him that the line of said railroad and telegraph from San Jose to Tres Pinos, and from Alcalde to Mojave, together comprising two hundred and fifty-two miles and four hundred and seventy-nine thousandths of a mile has been constructed and fully completed and equipped in the manner prescribed by said Act of July 27, 1866, and accepted by the President, and ———————————

Whereas, it is shown by certain papers filed in the office of the Commissoner of the General Land Office, by the duly authorized attorney of the Southern Pacific Railroad Company, with his letter of April 30, 1902, that the said Southern Pacific Railroad Company is the successor by consolidation of the Southern Pacific Railroad Compa.. of California, and——

[2840]

Whereas, the following tracts have been selected under the Acts aforesaid by the duly authorized land agent of the said Southern Pacific Railroad Company of California, or its successor, as shown by his original lists of selections,

approved by the local officers, and now on file in the General Land Office, and ——————

F-2 **Whereas,** the said tracts of land lie coterminous to the constructed line of said road, and are particularly described as follows, to wit: —

South of base line and **East** of

111-416 **Mount Diablo Meridian State of California**

Township Thirty Range Twenty-four

All of section twenty-nine containing six hundred and forty acres. All of section thirty-one containing six hundred and forty-five acres and thirty-seven hundredths of an acre. All of section thirty-three containing six hundred and forty acres. ——————

Township Twenty-five, Range Twenty-nine.

The South half of the South West quarter of section thirty-five containing eighty acres.

The said tracts of land as described in foregoing make the aggregate area of two thousand and five acres and thirty-seven hundredths of an acre (2,005.37).

Now Know Ye that the United States of America, in consideration of the premises, and pursuant to the said Acts of Congress,

[2841]

Have Given and **Granted** and by these presents **Do Give** and **Grant** unto the said **SOUTHERN PACIFIC RAILroad Com-**

pany, successor in interest to the Southern Pacific Railroad Company of California, and to its successors and assigns, the tracts of land selected as aforesaid, and described in the foregoing; Yet excluding and excepting 'All Mineral Lands,' should any such be found to exist in the tracts aforesaid, but this exclusion and excepting according to the terms of the Statute, 'shall not be construed to include coal and iron lands.' ———————————

To Have and **to Hold** the same, together
F-3 with all rights, privileges, immunities and appurtenances of whatever nature thereunto belonging, unto the said Southern Pacific Railroad Company, and to its suc-
111-417 cessors and assigns forever. ———————
418

In testimony whereof I Theodore Roosevelt, President of the **United States of America,** have caused these letters to be made patent and the Seal of the General Land Office to be hereunto affixed.

(Seal) **Given under** my hand at the City of Washington, this the twenty-eighth day of May, in the year of our Lord one thousand nine hundred and two, and

of the Independence of the
United States, the one hundred
and twenty-sixth **[2842]**

By the President: **T. Roosevelt.**
F. M. McKean, **Secretary.**
C. H. Brush.

F-4 Recorder of the General Land Office.
Conveying fees paid May 31, 1902, M. L. 128374
Patent to D. A. Chambers June 2, 1902
Receipt acknowledged June 2, 1902—93166."

111-418

In 1906, I had an office on the sixth floor of the Chamber of Commerce Building, at Los Angeles, I do not remember the number of the room; I rented that office in 1905 or 1906; the maps, Exhibits 180 and 181, must have been among some other papers that I shipped to my Los Angeles office before the fire; my reason for saying that I shipped them to Los Angeles was because I found them here; they must have got in with some other papers, without any intention of sending any of that matter to Los Angeles; that is the only way I can account for them being here, because everything else was destroyed and they could not come afterwards; sending these two maps to Los Angeles was a mere accident; I did not find them until some time after I had testified here, possibly a month, two months, or three months; I did not tell you when I found them because it was not much of any importance; Mr. Lewers asked me and told me about certain maps, and I told him I **[2843]** had found them; I showed them to him, these

two, and at his request I brought them; I think that anticlinal was placed on there years ago, but cannot state what year it was; I think it was before 1904, because I have no use for the maps, or anything, since I left the service of the company; I would have introduced it before at this trial if I had had it; I searched more than three days for the maps, through most all the papers I had.

At the time I made the recommendation for withdrawal of certain lands in Kern County, on the west side, in which I testified that certain sections were shaded on Exhibit 115, the map apparently showed the lands in suit and some in the adjoining township of 30-24 as unsurveyed; I believed them to be unsurveyed; I shaded them somewhere along in 1900, 1901, or 1902; and I think that I shaded a great many sections in the Elk Hills at that time; whether I shaded all those that are on that map or not I couldn't say; but it was a similar map that I returned to the office with the shadings on it; as I previously testified, I was not positive whether I made the shadings on that map; it looks like my work; whether it took in all those or not I am not satisfied; I would not say that that is the identical map that I took into the field with me; it was a lithographic map simliar to that, which was very common, and you could get a number of them around the Kern Land Company's office; I did not make it a practice to shade lands as oil lands which had not been surveyed and which the railroad company would not be entitled to until they were surveyed, because they had no interest in it;

they could not withdraw something they did not have; so that, after I made a circle around all the unsurveyed lands, shaded the piece of land which had been surveyed, it is true that I did not shade the oil lands which were not surveyed, because they were unsurveyed.

I do not know that the railroad company afterwards acquired the location which I made in Section 33 of 30-24 for **[2844]** petroleum purposes, under patent as agricultural land; that was after my time; reading from Exhibit 6A, the first description of land: "South of base line and east of Mount Diablo Meridian, State of California. Township 30, Range 24, all of Sections 29, containing six hundred forty acres, all of Secton 3, containing six hundred forty-five acres and thirty-seven hundredths, all of Section 33, containing six hundred forty acres." This patent to the Southern Pacific Railroad Company, embraces the land which John Jean, L. G. Sarnow and I located for petroleum on Section 33 in December, 1899; and also contains the lands which were located by Mr. Burkhalter and the other persons named in the location notices which you have read; my recollection, and honest belief is, that I never posted those notices.

Thomas Stribling's name is familiar, but I cannot place it just now; I am under the impression that I met him at two wells I bought in Beaumont, Texas; I do not know whether the name was Stribling or not; some such name as that; at the time I met Thomas J. Griffin in Texas, I was a stockholder in the

Spindletop Power company; I had only just a few shares, it might have been three or four hundred shares, something like that; I bought the stock through the recommendation of Mr. Bass, with the understanding that I should have the first privilege of air; I was in that way interested in what the company was doing; I do not know Mr. Bass's initials; there were two of them there; one was president of this company, and the other was an oil man; I refer to the president of the company; Mr. Griffin might have been vice-president and general manager of the Spindletop Power company at that time; Mr. Bass I looked to as doing most of the business; I don't know what Griffin was doing outside, merely the engineering; he was a mechanical engineer; how much he had to do with the field work I have no recollection of; Mr. Griffin was not over at my properties, or the properties which I was handling, the pipe- [2845] line, and so forth, while I was there.

I cannot place the Texas-Mississippi property on the Spindletop exactly; I think I was interested in that property, just east of the National Oil Company property; I had an interest in two wells there, but there was no pumping; mine was individual property, which I sold; I do not remember how much I sold it for; I had the two wells equipped up to test them, but they were only pumped a few days; I guess the equipment was done under Mr. Griffin's directions; I suppose I paid the Spindletop Power Company for the equipment of pipelines and putting in the air compression on those wells; I am not pre-

pared to swear whether I did or not; I generally pay my bills; I was not there when the work was done; I think the man that attended to that was Mr. Hansen, W. L. Hansen, I think it is; the money for development of those wells was not furnished me by the Southern Pacific Company, or one of its subsidiaries; I never used any of the moneys of the company for my private work; the only trouble there ever was over that work was when Mr. Hays came out to California and met me there; he said he didn't like the idea of employees speculating for themselves, that it demoralized the balance of the other employees; I was speculating for myself; I was under no contract that the land I bought belonged to the company, although I gave them the first privilege of taking it; I did not have any trouble with Mr. Hays or anyone else in respect to this particular property, I am certain of that; at the time I sold these two wells a man by the name of Hansen made the trade; I did not know that they were water wells; my transactions are all straightforward; the contract was made several months before they took them over, and I do not know who the purchaser was; the records will show; I have nothing to cover up or hide in my connection with the Southern Pacific, and every one connected with it will tell you the same.

I do not remember Mr. Griffin coming to my office in **[2846]** the Chamber of Commerce Building, to read the Beaumont Enterprise; I did not take the Beaumont Enterprise; it was sent on by Mr. Kennear to me; I do not remember Mr. Thomas J. Griffin

coming up to my office to read it repeatedly, and I don't think he did come.

There is a cemetery near Forest Lawn, near my home; I do not know of Mr. Griffin coming out to visit Mrs. Treadwell and myself at that cemetery and finding us there, or anything of the kind; he was not there with me and my wife; we did not spend two hours there taking him over the cemetery; I will swear that we did not meet him there; my wife would not accompany me through a cemetery with any one that way; we are not in the habit of doing it; my wife doesn't usually go in the cemetery.

I cannot place Thomas J. Griffin, other than the testimoney that I have given; I would not know him if I met him on the street today; I don't know Mrs. Thomas J. Griffin; I took my meals at the boarding room at Spindletop; I did not take meals at the house of Mr. and Mrs. Griffin; I don't know where it is.

I did not introduce Thomas J. Griffin, in my office, in the Chamber of Commerce Building, to my son-in-law who was in the bank in Los Angeles; I had no son-in-law in the bank in the city of Los Angeles, or a nephew in a bank in Los Angeles; I did not introduce him to anyone whom I claimed as a relative, by the name of Boynton, or any man; I do not know a man by that name in any bank here.

I did not at that time enter into a contract, on behalf of the Texas & New Orleans Railroad Company, Louisiana Western Railroad, and Galveston, Houston & San Antonio Railroad, for the delivery of about 300,000 barrels of oil, at 15 cents a barrel coming

from the Texas, New Orleans Railroad Company, in which Mr. Griffin attended to the transaction; I know Mr. Bass was interested, and he attended to that himself, and went aboard the car and made the arrangements with Mr. Kruttschnitt, who was there in [2847] Beaumont at the time; I do not think I was there at the time, I think my clerk attended to that; I did not go out in the field with Mr. Griffin; I don't know who organized the Spindletop Power Company; I always understood Mr. Bass was the leading spirit in it and put most of the money in it; I knew that Mr. Bass had the control of it, that is what they always told me; he was all I knew; he was president and the moving spirit in it; my dealings were with him; when I had dealings with the Spindletop Power Company and wanted air to operate my wells I may have stated to Mr. Griffin that the wells belonged to me, and I may not; I don't know; the gas had left the wells and they wouldn't flow, and by added air we could start them flowing again; but those wells, I don't think were put on air until after I had left; about the time they were making arrangements for it, I left; I did not ask the Spindletop Power Company, through Mr. Griffin, to flow some wells near what is known as the Haywood Oil Company, on Spindletop Avenue; those are the two wells that belonged to the Southern Pacific Company; they did not have the air on them before I gave them up; I do not remember A. D. Griffin, the son of Thomas J. Griffin; I did not have any conversation with Thomas Griffin's son in regard to having air put on the

lines to go to the Southern Pacific Company's wells; at that time those wells had not been put on the line; when Mr. Harriman came there there was no necessity for any air to be brought to them, and there was no air to put on them; I had an eight inch line to those wells, but do not know as at that time; I don't think it was finished; I did not tell young Griffin that I was looking for Thomas J. Griffin, or that I was expecting Mr. Harriman and a party and wanted those wells flowed; I did not tell them anything of the kind; Mr. Kruttschnitt telegraphed me a few hours before Mr. Harriman came that they wanted to go out in the field to see the well flow, if they had time; we went out there; Mr. Swain, partner of ex-Governor Hog, [2848] of Texas, who was acquainted with Mr. Harriman, came on the train and came out there; I only introduced him to one man, and that was the man I bought the wells from, at Mr. Harriman's request; I would not volunteer to introduce Mr. Harriman to anybody unless he requested it; I did not ask Mr. Harriman if he was ready to have the wells flowed; I did not introduce him to Thomas J. Griffin, or say that I was buying oil from him and the Spindletop Power Company; I was not buying oil from them at that time, or from any other company; Mr. Griffin did not then commence to flow those wells or explain to him the method of handling oil; the man who flowed those wells was the man I bought the wells from; the wells flowed naturally, with natural gas; I did not put them on compressed air, and they did not need it for six weeks after-

wards; they flowed many thousand barrels before they played out; and all the wells in there had flowed; those wells were capped, and the minute you opened them, all you had to do was to turn the valve, and they flowed right off with the pressure of the gas and oil.

I never dined with Mr. and Mrs. Griffin, and I don't remember ever riding out with him; I had my own horse and buggy; and I did not have any conversation with Mr. Griffin about going out to California, that I was in a position to place him upon some valuable oil lands, or explain that the Southern Pacific Railroad Company had a great deal of oil land in Kern County situated in the Sunset field; no such conversation; I did not attempt to induce any other persons to go out and select lands on the even sections in what is now known as the Elk Hills for petroleum purposes; I did not say in any conversation that I had been over the lands in person on the West Side field in Kern County, or that in my opinion the Buena Vista Hills or Elk Hills would be the best place to drill; I did not tell Mr. Griffin that the Southern Pacific Company owned under an act of Congress all the odd sections along the right of way but that the even sections had not been **[2849]** taken up, or that I could ascertain what they were and that by simply filing on them and doing the necessary amount of assessment work in order to secure patents that patents would be acquired; I did not make that statement or any part of it to any person in Texas while I was there operating;

I do not know what condition the Spindletop Power Company was in at that time; I suppose they were in good condition financially; when I bought stock in it they were intending to go to work and fix up their plant for the purpose of furnishing air; how much they sold I don't know; I think I sold my stock soon after they commenced supplying air; I never got any dividend out of it; my recollection is I did not get any more for my stock than I paid for it; I do not know what it went to; I don't remember;

I do not remember having any maps in regard to California when I was in Texas; I may have had this Kern County Map, or one similar to it; I do not remember showing Mr. Griffin any map, and I did not advise him to go to California; if I had that map there it would have the unsurveyed lands shown on it the same as it does now; and if I showed Mr. Griffin a map it would be a cross-section of the wells, as a map like Defendants' Exhibit 116 would be a blank to him, or to anyone unless they had gone out and were familiar with the lands; I did not point out to him the unsurveyed lands in the Elk Hills; I would not have pointed out the even sections that could be taken up for oil, because I had no confidence in that section; I selected some of those lands, and abandoned them because I considered them worthless; before the year was up they were selected by the Southern Pacific Railroad Company; I did not abandon them and after in common parlance "double cross" my associates and have the lands

taken up by selection by the Southern Pacific Railroad Company under the Agricultural grant. From the evidence here it appears that they were selected before the year was up, after my location; I do not remember at any conversation I had with **[2850]** him showing Thomas J. Griffin a pocket map which was identical with Exhibit 115, showing the condition of the oil development in the West Side Field; the map that I had like this did not have any lines showing the anticlinals, subdivisions or wells, or where they had been drilled; it simply showed the lands; the maps I had were in rectangular forms,—townships and ranges **[2851]** and sections; the Texas forms were altogether different.

I was in Beaumont, Texas, in 1902, but I do not remember the particular months; I never furnished Mr. Griffin with any map—or anyone else; I never had any conversation or letter in which I told Mr. Griffin or Mr. Bass that I wanted a definite answer as to whether they would go with drilling rigs to the Elk Hills, nor did Mr. Griffin say he would take the matter up on Mr. Bass' return; I did not say that I would not give up that map for the reason that it was railroad company property; I don't remember showing him any map, or talking with him about any; and I don't remember saying anything about it being but a short time before a pipeline would be built into the McKittrick fields; I may have said that, but I don't think I did, because I did not believe at that time the oil was light enough to go through a pipeline; it must be a light oil, and most

of our oil is pretty heavy; 14 gravity I call a heavy oil; a light oil is anywhere, 18, 20, 22 to 26; any oil in excess of 25 to 28 would be regarded as light oil; the pipe line they built from Kern River, the first one, the Standard, proved a failure until they got light oil; light oil is worth more than heavy oil; I don't know what it is in the market now, but it will bring a difference of anywhere from 40 to 50 cents per barrel; I do not know when the lands in the Elk Hills forming the basis of this suit and also those appearing on Exhibit 115 were surveyed, only from the records here; I did not know in 1903 that they had been officially surveyed and approved; I did not point out to Mr. Griffin anything about unsurveyed lands in the Elk Hills, or lands appearing on this 115; I do not remember anything of the kind; I don't know why I should; After my visit to the Elk Hills I had no desire to own or develop any part of it; it may be that the Associated Oil Company spent considerable money locating there; you will find people locating everywhere; naturally when a man had a location he would be glad **[2852]** to see someone come in on land nearby and drill, in order to prove his claim without expense to himself, but I had no such idea regarding the property in the Elk Hills.

REDIRECT EXAMINATION
OF J. B. TREADWELL

My best recollection is that I prepared those notices for location, Jean and Sarnow took them out

with them, having been on the ground before, and posted the notices themselves; that I subsequently went upon the ground and looked it over—whether with one or both of them I don't remember—and said at that time that I didn't consider them worth holding or doing any work upon.

I don't remember the year when the Kern River excitement began, but it was in the summer, and I think in 1890,—no, I mean 1899 or 1900; I was operating at McKittrick; the effect of that excitement was that everybody went and located the odd sections, and went in and applied to the Southern Pacific and got options for purchasing of the railroad lands; they located all around the Kern River field on land that was not good for anything; for miles around, clear up to Posey Creek, away out on the flats; located, I suppose, two or three townships of land; there was a condition of excitement in that country; when I colored, upon the map, a section belonging to the company, the maps for withdrawal of lands from sale were sectionally selected, and that as near as I could determine from general observation, that carried oil. I also extended on the dip of the formation away beyond where it was possible, as I thought at that time, to get any oil. In other words, you might say a blanket; and those questions arose between Mr. Madden and myself, on the ground that I was taking land that I could not identify as mineral lands; which afterwards come up between Mr. Huntington and Mr. Madden and myself; when Mr. Madden set forth his claim, Mr. C.

P. Huntington asked what I had to say; I told him I could not determine where it would go; that people were buying this **[2853]** land up, paying twenty per cent down, had a number of years to pay it in, and the result was the company didn't get but a small amount out of it, and probably they wouldn't take it unless there was oil in it; and he said that under those circumstances the company could just as well speculate in it as anybody outside, and ordered Mr. Madden to reserve any lands I suggested be withdrawn from sale.

I don't think I had anything to do with the selection of the lands in 30-24 that were patented in 1902; I did not know that a patent application was pending; the selection was not made in any way on my recommendation; the location of the claims in Section 23 of 30-24 was not made at my suggestion for the purpose of getting that land for the railroad company, and no effort was made by me to retain that land under those locations; I did not do anything with it; I simply abandoned it.

RE-CROSS EXAMINATION OF J. B. TREADWELL

It was not a part of my duty as field agent of the Southern Pacific Company to know what lands the company were applying for for patent; it was part of my duty to ascertain what oil lands there were in that field; I always reported everything that I thought—where they had any reservation, where they owned the land—made a reservation—if I

thought there was any indication, and even beyond that, so as to be sure to get it all. I regarded it as a part of my duty when in my judgment I thought the land contained oil to report it to the railroad company and whenever I found any land that I believed to be oil land I did so report it to the railroad company and this was during all the time that I was in their employ. I didn't stop to inquire of Mr. Madden if he was making an application for patent or not on any land when I made those reports as I had plats of the patented land that the company had. I did not make **[2854]** this inquiry because it was outside of my jurisdiction. I had nothing to do with it. I simply reported on what I thought was oil land and let it go at that. Beyond the patented land, if it was within the indemnity limits, I would not make any report on it. I did, however, in fact, trace out anticlines over the lands that they didn't own on sections that showed possibilities of oil, and I certainly reported those things to the company. I reported only where they were interested and not outside of where they were interested. I thought it was part of my duty to report to them that certain lands where they were interested were not patented, although they contained oil. When I was tracing an anticline, I would report on those lands within the indemnity limits which might be taken and selected and which contained oil, the same as if these lands were patented. I made no distinction. **[2855]**

I traced no anticlines in the Elk Hills, and reported

on no unselected lands for the purpose of having them selected with that idea in mind.

Recross-Examination:

I remember being in Mr. Mills' office, 406 Post-Office Building, I think it was about February, 1912, about the 18th; I do not remember saying to you that the railroad company took Professor Dumble's opinion as to land values; I did not say that they valued the opinion of Mr. Owen more than Mr. Dumble; if I did it was all wrong, because Mr. Dumble was Mr. Owen's superior, and Mr. Owen would not report only to Mr. Dumble; I would not make any such statement as that; it must be a misstatement; it was not taken down correctly if it is that way; You have got it jumbled up; I did say that Mr. Dumble never said much about what he thought, that he kept very quiet; that he was not very familiar with the oil business, and made some mistakes,—we all make mistakes; I remember referring to a map similar to Exhibit 115, by saying that I made a map before I left, listing all the land, and colored all of it that I thought contained oil and ought to be reserved; I said that I had colored all that contained oil possibilities, and beyond that point; I remember that you asked me if I regarded in 1902 and 1901 the Elk Hills and Buena Vista Hills as oil territory; but I did not reply that one could not say it was not, that it looked all right, or that we found an oil seepage on Section 32; your stenographer has got things mixed up; Mr. Mills, you know that is not so; if I had said anything like that

you or Mr. McCormick would have examined me on it on direct. I did say that the land had no agricultural value at all except for grazing, just in the spring of the year; and when you asked me if Mr. Dumble made any reports to the company, I replied that all of his reports were written; he was great for that; he itemized everything. **[2856]**

PAUL D. BOWLER, a witness called and sworn on behalf of the defendants, testified as follows:

DIRECT EXAMINATION

I have lived in Los Angeles three years, and am connected with the Layne & Bowler Company, a corporation, as president and general manager; they employ about 250 men. This company operates in California, New Mexico, Arizona, Texas, Arkansas and Louisiana, and has branch establishments at Houston, Texas; Stuttgart, Arkansas; Welsh, Louisiana, and Turkistan, Asia; they are engaged in the manufacture of oil and water-well screens for separating liquids from sands, and also the manufacture of centrifugal pumping machinery and the installation of it.

I lived in Texas about seven years, and left there about three years ago; in Texas I was connected with the Peden Iron & Steel Company, of Houston, Texas, and was manager of the machinery department and had charge of the credits in that line for the company; it was my duty to pass upon the risk of credits in the oil fields at Spindletop, Sour Lake, and other places, and I made efforts as such credit man to keep in touch with the standing of the gen-

eral credit of men engaged in business in that field.

While so engaged I was acquainted with Thomas J. Griffin; Defendants' Exhibit No. 179, which you have shown me, is a picture of the Thomas J. Griffin that I knew in Texas; I was acquainted with him since I came to California; I knew his general reputation for truth and veracity in the community in which he lived in Texas; I consider it bad; I knew his reputation there for honesty and integrity at that time, and did not consider it good; I know Griffin's reputation in the community where he now lives in Los Angeles for truth and veracity; it is not good. I would not take Griffin's word in a business dealing myself. There has been no trouble between Mr. Griffin and myself. I have no interest in this controversy whatsoever. [2857]

CROSS-EXAMINATION OF PAUL D. BOWLER

Our company manufacture in Los Angeles, Houston, Texas, and Stuttgart, Arkansas. Griffin never worked for us in California, except as a subcontractor. The Texas company is not connected with the Southern Pacific Company, as far as I know. I do not remember the amount that the Spindletop Power Company was indebted to the Peden Iron & Steel Company when the Spindletop went to the wall. I don't know whether the fact that I was largely interested in the Spindletop Power Company, which went into the hands of a receiver, has any bearing —though it may have—on my general opinion. Per-

haps it does have some weight **[2858]** among other things. Up to that time my business relations with that company were pleasant. Well, of course, as manager, I suppose I must have considered that Griffin had something to do with its bad management, although that was not really the foundation of my complaint against Mr. Griffin as I have no complaint against him and I could not say that that is the basis of my feeling towards Mr. Griffin. I could not say that I held that up as a grudge against him. I have no grudge against him at all. I don't think Mr. Griffin was a man of large affairs at Spindletop at that period. I never heard of his owing the T. & N. O. Railroad Company as high as $90,000 and when I am asked if it was because of the unfortunate business concern in which Mr. Griffin was a partner or a large owner and through which I suffered financial loss, I am willing to come here and testify that Mr. Griffin's reputation for truth and veracity and for honesty and integrity, was bad, I say, "No, not that alone, by any means. That might have had a small bearing on my idea regarding the matter." And when I am asked how it comes that when he came out here afterwards to Los Angeles I entered into a contract with him my answer is, "I didn't know his connection at the time I made the contract with the company of which he had been appointed manager." I have never had any trouble at all with Mr. Griffin. The persons in Texas who have told me that Mr. Griffin's reputation for truth and veracity and honesty and integrity, is bad, are

W. T. Jones, who is now with the Union Oil Company, I believe. W. B. Sharp, but he is dead, and J. W. Sullivan of the Peden Iron and Steel Company, with which I was connected as manager [2859] of the machinery department. I am trying to think about someone that is not connected with some company that was a creditor of the Spindletop Power Company. It is pretty hard to know what my reputation is in Texas for truth and veracity. I really don't know how people consider myself. I was always pretty conceited about my reputation. I always bought all the goods my company wanted but I don't think that because I got quite a line of credit that that is the summum bonum of a man's reputation for truth and veracity. I have never been arrested or ever been in court and never been in anyway brought to time about my truthfulness. I have never heard it questioned in any way that I know of. I failed in business in the panic of 1893. I owed a great deal more than I could pay but I worked it out and paid it all. When a man fails in business and his business goes into the hands of a receiver and leaves a large indebtedness, exceeding a hundred thousand dollars, at the time the assets are insufficient to pay more than about twenty per cent of it, he gets a reputation for bad credit when in reality the man may be good hearted and want to pay. That is so. If I should fail in business and owe a great deal of money which I was unable to pay, although willing to do so, I would not want someone to testify against my character, perhaps, but

I would want them to testify against my business ability as being a bad manager. Mr. Griffin has done me no injury whatever outside of the injury which was occasioned by the failure of the Spindletop Power Company and I am sensible of no feeling one way or the other against him. I would not say Mr. Griffin is not a perfectly decent, lawabiding, honest **[2860]** citizen. I have no prejudice against him whatever. I first learned that I would be wanted to come here to assail the character of Mr. Griffin about six months ago. At that time Miles Bowler, Chief of the detective force of the Southern Pacific, spoke to me on the train in Arizona. Two months after that Mr. Gray came to my office to see me and asked me about Mr. Griffin. I told him I didn't want to get mixed up in anything of this kind. The first time I talked with Mr. Lewers about this case was this morning between eleven and twelve o'clock. I talked with him about five minutes. Previous to that, about a month ago it was, I had the conversation with Mr. Gray. In that conversation I told Mr. Gray just what I knew about Mr. Griffin and Mr. Gray seemed very well pleased with what I told him. He did not tell me that Mr. Griffin had testified in this case. I knew that before I saw him. He told me that Griffin was a star witness, that is, either Mr. Gray or Mr. Bowler told me that Mr. Griffin was the star witness for the government against the Southern Pacific. He didn't tell me what he had testified to and he told me he wanted me to come up and testify to what I knew about

Griffin. I knew he was looking for the record of Mr. Griffin. He took a memorandum book and took down a number of items of people I told him about. I gave him the names of a number of people in Texas. I gave the name of Mr. W. B. Sharp, who is dead, and I gave him the name of E. E. Peden of the Peden Iron and Steel Company, and J. W. Sullivan, and I told him to go and see the different supply houses there and also the banks. I gave him the name **[2861]** of W. T. Jones. I did not give him the name of M. B. Bass. It didn't occur to me to give him his name. I was picking out the names only of those whom I knew to be enemies of Mr. Griffin. I didn't know any of Mr. Griffin's friends. He might have had friends. I couldn't say he didn't have. I didn't think only of people who had been injured by the Spindletop Power Company, like myself and Jones and the credit men. I gave them the names of people who had transactions with him, that knew him. I had no trouble whatever with Mr. Griffin. I shook hands with him yesterday in the hotel in Santa Maria. He said "Hello, Paul, what are you doing up here?" I told him and I asked him what he was doing up there, and so forth, and a few words passed between us. Mr. Lewers did not tell me anything he wanted me to testify to at all. He did not go over what I have testified to here on the stand with me. He showed me the picture and asked me if I recognized that man and I told him I did. At that time he did not tell me what I was going to testify to here. I asked him if he had been to see

certain people in California and he said he had not. We had a little conversation regarding the matter and I told him I didn't know anything, only in a general way. I indicated to him that I didn't have a good opinion of Mr. Griffin's reputation but I did not go over the whole thing with Mr. Lewers. I told him that I could not give any dates and I meant to say that I had no discussion with Mr. Lewers about what I was going to testify to on the stand here and I did not tell Mr. Lewers everything that I have testified to here about what I thought **[2862]** of Mr. Griffin's character. I am not in any business relations with the Southern Pacific Company. I sold the K. T. & O. Oil Company some screens about six months ago. I don't remember whether that was just the time or not when Mr. Gray, the Southern Pacific detective, called on me. It was approximately the same time. I think I sold the Kern Trading and Oil Company in the last three years about $7,000 worth of stuff. I make sales of our manufactured products to the Associated Oil Company. In doing business with the Associated Oil Company I do it through the purchasing agent of the Associated Supply Company, which is the same as the Associated Oil Company. Their purchasing agent is Mr. Wilson, I believe. He is their manager here. I have sold them during the last five years, a couple of thousand dollars worth of stuff. I wish to correct my statement in regard to the Southern Pacific. I drilled two wells for them in New Mexico about eighteen months ago at Gage. The work was direct-

ed from Mr. Platt's office, who is the chief engineer. I don't know the subsidiary companies of the Southern Pacific, therefore that is all I can remember at present. I had some dealings with the Rio Bravo Oil Company in Texas. I sold them oil screens. Mr. E. T. Dumble was at the head of the company at that time. I have not been there in three years. I have had some business relations with them but I don't know who it was with. During my time of doing business with the Rio Bravo Oil Company in Texas I guess I did as high as $7,000 worth of business with them. The total contract price of the wells we drilled, I think, was about $2500. That business has been closed and I have been paid my money. I have not done any other **[2863]** business with the Southern Pacific since. I have bid on work but did not get it. My company in Texas has had some small business with the Texas and New Orleans Railroad Company. When I speak of the Southern Pacific I mean the Atlantic division. The T. & N. O., the G. H. & S. A. and other companies under the Atlantic system. I have done business with the G. H. & S. A. We drilled some wells for them a number of years ago in Texas. We drilled about half a dozen wells. The contract price was about eighteen or twenty thousand dollars. We furnished them screens. They were included in the contract price. I know the Morgan, Louisiana & Texas railroad. It is part of the Southern Pacific system. We drilled some wells for them in Louisiana. I think we drilled two or three wells. The contract price was eight

or ten thousand dollars. We furnished that company with screens for those wells. We have also done business with the Houston & Texas Central Railroad which is a part of the Southern Pacific system. We drilled one well for them at McNeil. The contract price was so much a gallon for water, but we didn't get any. I furnished them with a screen some eight years ago. The cost was about a hundred dollars. That is all the business that I recollect having done with the Houston & Texas Central. We drilled a well for the Houston and East and West Texas Railroad, which I believe is a part of the Southern Pacific system. The contract price of that well was two thousand dollars and included screens that we furnished. My business dealings at Gage, New Mexico, were done with the Los Angeles office of the Southern Pacific. It is not possible that **[2864]** the vast amount of business which I and my company have done with the Southern Pacific Company, defendant, and its subsidiary companies, has had a tendency to influence my testimony in regard to Mr. Griffin, whom I say has never done an injury to me excepting that his company owed me some money when it went into the hands of a receiver.

RE-DIRECT EXAMINATION OF PAUL D. BOWLER

My impression of Mr. Griffin was not based upon the failure of the Spindletop Power Company to pay its debts. It is based on a number of transactions, such as the setting of some compressors once in Bat-

son, and the way he conducted himself when he was acting as subcontractor here in California, and what he said to me and told me at different times. The failure of the Spindletop Power Company did not create any feelings on my part, nor did it leave any desire with me to get even with Griffin. It perhaps had a little bearing, in the decision, in my opinion, in the summing up of my opinion of the man. The various transactions referred to with different railroad companies formed a very small portion of our entire business; the business transactions over the territory in which our company operates will amount to a million and a half dollars a year.

RE-CROSS EXAMINATION
OF PAUL D. BOWLER

The total percent of our business done with railroads owned and controlled by the Southern Pacific Company might be one percent; the amount that I have mentioned covered a period of seven years.

[2865]

W. T. JONES, a witness called and sworn on behalf of the defendants, testified as follows:

DIRECT EXAMINATION

I live in Bakersfield, California; I am employed by the Union Oil Company, about twelve miles from Orcutt, in Santa Barbara County, and am at present engaged in erecting a large gas refining plant; have been in California since the 20th of November, of last year. I was born at Richmond, Virginia, and

subsequently moved to Texas, where I lived near Beaumont for about ten years; I was engaged in Texas with the Rand Drilling Company of New York, and assisted in the development of a patent for flowing of wells, under Mr. Titus, and afterwards was engaged in the erection of machinery for air compressure for a while, and then went into the employ of the Texas Company in the production branch as chief engineer.

I was acquainted with Mr. Griffin in Texas, and first met him in Spindletop early in 1902, but do not recollect the month. Griffin was connected at that time with the Spindletop Power Company as foreman of the air plant; the Spindletop Power Company moved to Sour Lake in 1903 or 1904, and they went into the hands of a receiver in 1903 or 1904; after they went into the hands of a receiver, I saw Griffin at Sour Lake; his son was employed by me while at Sour Lake, and he told me that his father was engaged in the Rio Bravo Oil Company, either constructing or tearing down oil tanks; Thomas J. Griffin stood ten or twenty feet away during this conversation.

I am acquainted with Griffin's general reputation in the community in which he lived in Texas during the years 1902, 1903, and 1904, for truth and veracity; that is, I was for a month or two during the spring, when Mr. Griffin was in Beaumont; it was bad—not good; I was introduced to Mr. Griffin three or four times but I never had but very little conversation with him; my first experience with him was not

very good; he is not a man that I would care [2866] to cultivate an acquaintance with; I do not base my answer as to his reputation upon any feeling that I have personally against Mr. Griffin; I couldn't say how generally his reputation for truth and veracity was discussed in the community; I saw him frequently in the fields, and heard his reputation for truth and veracity discussed quite frequently among oil men, especially among machine men and operators on the field, and it was not good; I have not seen Mr. Griffin since 1904, the time I have just mentioned when he was with his son; I would not like to believe a statement in a business or ordinary matter made by Mr. Griffin to me, knowing his reputation as I do.

CROSS EXAMINATION OF W. T. JONES

I worked for the Texas Company in Texas. They were engaged in the production and refining of oil. They operated in every field in Texas and Oklahoma but their headquarters were originally in Beaumont and are now in Houston. The Texas Company is not controlled by the Southern Pacific. My father was a farmer engaged in the railroad business in Illinois. He worked personally for the Illinois Central Railroad. He was engaged in the transportation department of that railroad. He was Assistant freight agent or division freight agent or something of that kind in Chicago. In 1881 or 1882 I left there and went to work in the Burnside shops for the Illinois

Central as an apprentice. **[2867]** I was then about twenty four years old. During the next two or three years I had several other positions and I then went back to Chicago as a machinist and worked two or three years for the Illinois Central railroad. I then went to work for the Iron Mountain Railroad. That was about 1893. I then went to Spokane. I didn't do any work there. I then went to Buffalo, New York. I wasn't doing anything. It was not because I couldn't get a job. I didn't care to work. Work was pretty dull at that time and I was looking for an investment. I had some money. It was while I was in Beaumont that I went to work for the Texas Company. That was about 1902. It was either in September or October, as near as I can remember. I remained with them until 1911. We were not in Beaumont all the time I worked for the company. I would be in all the fields. I met with Griffin in 1901 or 1902 at Spindletop. There was only one field in Texas at that time and that was at Beaumont. I presume that that field would cover a hundred acres. Mr. Griffin never did me any injury, none whatever. He never loaned me any money and I never loaned him any. I didn't know that he was Vice President and General Manager of the Spindletop Power Company. I was not well acquainted with Mr. Griffin. I think I would know him if I saw him. I might not. The first introduction I had to Mr. Griffin was when he came to the plant on which I was engaged in work and

wanted to borrow some tools or some fittings and someone introduced me to him and the other occasions were at different times during that and the following year. These **[2868]** introductions were very brief and I had no business dealings with him of any kind, or his associates. I had no occasion particularly, to remember him at that time any more than any other man. I don't think that it was out of the ordinary. So far as I was individually concerned he minded his own business as far as I knew him. I have no complaint to make now, none whatever, about the way he treated me. I first learned that I was to be a witness here about a year ago while I was on a pullman car en route to Tucson. Some gentleman, I don't know what his name was but I believe it was Miles Bowler, met me on the pullman. I was going into the wash room just before getting into Tucson and Mr. P. B. Bowler of Bowler and Layne, and Miles Bowler, had a paper between them and Mr. P. B. Bowler held up the paper and says: "Jones, do you know that fellow?" and I looked a minute and I said: "Yes, that looks like Tom Griffin." Mr. Bowler of the Southern Pacific asked me about Griffin's reputation. At that time I was acquainted with Mr. Bowler of Layne and Bowler. I knew him in Texas. I began to work for him about a year ago. I know a man working for Layne & Bowler by the name of Russell. He is a kind of night watchman or foreman down there. I don't know if there are any more of the people from the Layne and Bowler works that are coming up here

to testify against the character of Mr. Griffin. I was employed by Layne and Bowler as an erecting engineer. I met a man by the name of Mr. Gray, detective for the Southern Pacific. He did not tell me that at one time he was connected with the government but he told me a good many other smart gentlemen were. I did not have a talk with [2869] Mr. Bowler of Layne and Bowler before I came here. The only time I talked with him was on the particular occasion I mentioned in the pullman car. I did not talk with Mr. Russell at any time about Mr. Griffin. The reason I knew I was wanted up here to day was some gentleman telephoned to me that I was wanted. His name is Luke or Lute, something of that kind. I was not subpoenaed to come here. I presume I am being paid for coming up here. I think my services are worth what I am getting, five dollars a day and expenses. I am not with Bowler and Layne any more. I left there the first of July of this year. I am at present engaged in erecting a large gas plant for the Union Oil Company about twelve miles from Orcutt. I am an erecting engineer. Mr. Quinn is in charge of the work. If Mr. Griffin was asked the question whether he regarded my reputation for truth and veracity in so far as he knew about me in Beaumont, as to its being good or bad, I couldn't say what he would say about it. As to my reputation in Beaumont, my word was always considered good. I don't know anything bad about myself. When I was working for the Texas Company they were furnishing oil to the Southern Paci-

fic or the allied railroads at Spindletop. They had a very large contract at one time with the Southern Pacific. I was told it was a million barrels. [2870]

W. H. DAVIDSON

Witness for Defendants. Los Angeles, Cal, July 21, 1913.

Direct Examination.

I live at Beaumont, Jefferson County, Texas, and have lived there five years; I am judge of the Fifty-eighth Judicial District, which is the highest trial court in the State; the District court in Texas has exclusive jurisdiction in all contested elections, and land cases, and in all cases where the amount in controversy exceeds a thousand dollars; the next highest court is known as the Court of Civil Appeals, which handles civil matters; in criminal matters it is the Court of Criminal Appeals; it is the court of last resort. I was born in Texas. My father is a judge of the Court of Criminal Appeals and has been serving since 1891; prior to his going on the bench, I was engaged in the practice of law at Beaumont, since July 1, 1908, and five years previous to that I was at Sour Lake, Hardin County, Texas; while practicing law at Sour Lake I knew Mr. Griffin casually.

I knew that Mr. Griffin was connected with the Spindletop Power Company, but my acquaintance with him was more by reputation than personal; I did not know him personally, but knew him by sight. I knew his general reputation in the community for

truth and veracity, and was acquainted with his general reputation at that place during the latter half of 1902 and 1903, and probably the latter part of 1904; Griffin did not stay there a great while, approximately a year from the time that I went there in July, 1903; his reputation for truth and veracity was bad; he bore the reputation first, of being a man who talked a very great deal; he was given to bragging, and in fact he talked so much that his reputation was that he talked so much that he was not considered reliable and truthful; a great many of the people there at Sour Lake called him "B. S." Griffin on that account. **[2871]**

I have absolutely no personal feeling against Mr. Griffin. I don't know that I would know the man even if I should see him now. I knew him at that time when I met him on the street. He has never done me, or anyone in whom I am interested, any injury whatever.

CROSS-EXAMINATION OF W. H. DAVIDSON

I was not subpoenaed to come into this case. I came here at the request of the Southern Pacific, I suppose. Mr. W. E. Orgain was the immediate cause of my coming and Mr. Gray was the first party that came out there. Mr. Orgain, I presume, represents the branches of the Southern Pacific, I don't know. It is the Texas and New Orleans railroad in the district in which Beaumont is headquarters. Mr. Gray first talked to me in May or June of this year

at Beaumont. I still retain my position in the judiciary. I arrived in Los Angeles Saturday morning. My business in coming to Los Angeles was to testify in this case. I am not paid a cent for coming here. The company pays our transportation. I presume it was a pass that I got. Mr. Orgain paid me —turned me over some funds and I have a pass from the state from Rio Grande here and back to that place. From Beaumont to Rio Grande I bought tickets. Mr. Orgain gave me **[2872]** $190 I think, to come out here. My wife came with me. I brought some additional money with me. I don't think what Mr. Orgain furnished me with was sufficient to pay the expenses of myself and wife. My wife has a pass from the Rio Grande to Los Angeles and return furnished by Mr. Orgain. The pass is for myself and wife. The $190 was over and above the transportation from Rio Grande to Los Angeles and return. It is correct to assume from my testimony that I have a pass from Rio Grande to Los Angeles and return for myself and wife. Rio Grande is on the state line between Mexico and Texas. When I am asked what the tickets cost for myself and wife from Beaumont, Texas, to the point at which the pass was good, the answer is, "It is only a mile or two from El Paso to this state line, and the railroad paid no attention to that as I came over that; I didn't buy any additional tickets but the Clouderoft tickets, I believe, cost seventy odd dollars. I don't remember if those tickets were paid for out of the $190 which was furnished me. I had some money

besides that and it may be possible that Mr. Orgain bought those tickets and gave me the $190 in addition. I won't be positive about that. It may be that the tickets were purchased, possibly, from Cloudcroft and return for myself and wife and the passes issued from there to Los Angeles and return to that point for myself and wife and $190 in addition to that and when you ask me in my best recollection if that is not probably the fact, I will say that I am afraid to say; I will say that it may be the fact, I don't remember. I brought some money with me and got some more this morning. I don't remember now. **[2873]** They offered to pay my expenses and pay me whatever I would demand or thought my time was worth on the trip. Mr. Gray seemed to think that my salary would be stopped while I was not serving. And I told him that I would not expect anything in the way of compensation at all. All I wanted was expenses and if there was was anything left they would get it back and if there was anything over they would have to refund it. I regarded the pass for myself and wife as part of the necessary expenses of the trip. When you ask me if I received any other money besides the $190, so far, from Mr. Orgain of the Southern Pacific Company I answer, "Well, I have received—I borrowed some from him not very long ago; I think it was $100; $125, something like that; it had nothing to do with this, however. Oh, that was before I went on the Bench, Yes." When you ask me if I have been employed by the Southern Pacific Company in my

private practice as a lawyer, my answer is, "Until I was appointed on the bench I was with the firm of Orgain & Butler. On the first of January, 1912, Judge Hightower resigned from the District bench and went into that firm and I continued with the firm under the name of Hightower and Butler until my appointment this year. During 1912 and until my appointment I was—I think they called me "local attorney" for the Texas and New Orleans Railroad at Beaumont, which, I understand is a branch or subsidiary of the Southern Pacific Company. I think it was on the 10th of July, 1911, when I became a member of the firm of Orgain & Butler. This Mr. Orgain is the same gentleman who furnished this money. He is the District Attorney of the Texas and New Orleans Railroad, **[2874]** a subsidiary of the Southern Pacific. He also represents the Kansas City Southern in that district. I was in Sour Lake in private practice for five years. My brother in law, George W. Graves, of Houston, was connected with the firm for awhile. The first real practice I did was at Sour Lake and from there I went to Beaumont. The firm of Hightower, Orgain & Butler is still acting for the Southern Pacific. I remember the occasion of the explosion of some of the lines of the Spindletop Power Company when Mrs. Neidbell was killed. I was employed to represent her next of kin in litigation against the Spindletop Power Company. I brought a suit against them. I brought suit for probably twenty five or thirty thousand dollars. I did not have a bit of trouble

with the Spindletop Power Company or Mr. Griffin. I never got where I could have for the Spindletop Power Company went into the hands of a receiver shortly after that and the case was never tried. I understand that my salary as Judge goes on during the time I am absent from the state.

RE-DIRECT EXAMINATION

I think it must have been early in 1904 that the Spindletop Power Company went into the hands of a receiver. It was not long after this explosion which was in the fall of 1903. I was still located at Sour Lake at the time the company went into the hands of a receiver. I do not know of my own knowledge whether or not the property was afterwards sold at a receiver's sale. As to the arrangements that were made for my trip here, Mr. Gray wanted to **[2875]** know how much I would want for making the trip and I told him that I would not take a cent as remuneration. It was merely a matter of expense on the trip. That was all.

GEORGE W. ARMSTRONG, a witness called and sworn on behalf of the defendants, testified as follows:

DIRECT EXAMINATION

I live in Fort Worth, Texas, and have lived there about twenty-four years. I am president of the Texas Rolling Mill Company, and president of the Fort Worth Gas Company, and am a member of the firm of Hubbell, Black & Co., of that city, president of the Denison Mill & Grain Co., of Denison, and

owner of the Horseshoe ranch, and am largely interested in a number of oil producing companies, and a couple of oil mills manufacturing cotton seed oil.

I was originally president of the First National Bank of Sour Lake and had private banks at Batson and Saratoga. I practiced law from the time I was twenty years of ago until about 1895, and at that time was elected county judge of Tarrant County, Fort Worth. I was president of the First National Bank of Sour Lake from 1902 to 1904.

I was acquainted with Thomas J. Griffin. I knew him first at Spindletop, and first met him in the spring of 1902. I knew him in the Batson field for a period of about two years, and as president of the bank I had business dealings with him; I loaned him $1500 on property which he claimed to own; this loan was secured by a mortgage and a note was given for the mortgage; I handled the matter for the bank. The certified copy of complaint now shown me, in an action brought by the First National Bank of Sour Lake against Thomas J. Griffin, Defendants' Exhibit No. 182, describes the note that I have just discussed, and the note was dated April 26, 1904; Griffin had delivered the note to me at the bank at Sour Lake, and a few days prior to concluding the loan I met him on the train. **[2876]** At the time when this note was given Mr. Griffin was engaged in drilling an edge well; he had been drilling this well as long as thirty days prior to the time when he borrowed the money, and continued fifteen to thirty days after that.

The deed of trust under the power of sale which Griffin gave me was foreclosed by me, and I sold the land amongst other things in the deed of trust, and bought it in for $50; I subsequently sold it for $200; Griffin offered as security for the loan from fifteen to twenty thousand barrels of oil in storage, his drilling rig and boiler, two wooden tanks, and the pipe, and the land on which the well was situated; I made two demands on Griffin for the payment of the money, and after the second demand was made he left for old Mexico, and I have not seen him since. I am acquainted with the general reputation of Thomas J. Griffin for truth and veracity in the community where I lived and where I knew him; his reputation for truth and veracity was bad; I became acquainted with that reputation after he left; a number of oil men came to me to discuss the matter with me, knowing that Griffin had left the country, and the circumstances under which he left, and they seemed surprised that I did not know the character of the man; all of them seemed to know that he was both a thief and a liar.

CROSS- EXAMINATION OF GEORGE W. ARMSTRONG

I never had any connection with the Southern Pacific, or Texas & New Orleans Company, or any other railroad in my life, of any sort or character. I was asked to come here to testify by Jesse Andrews and the firm of Baker, Botts, Parker & Garwood, who [2877] are the local attorneys for the Southern Paci-

fic Company. I was willing to come and was a little more willing to come on this occasion because Griffin happened to be a witness and when you ask me if I came because I lost some money on a note while I was running a Bank in Sour Lake, well, it is not the loss of the money. I can lose money with as good grace as anybody but I don't like for a man to swindle me out of it and I don't feel kindly, if that is what you are trying to get at, to a man that does swindle me. I am so sensible to the matter and so full of rancor and bitterness towards Griffin that I tried to have him indicted and he stayed out of the country on account of that. I don't know that he stayed out of the country, all I know is that I couldn't find him and he was quoted as being in Mexico. I don't know that he went to Mexico through the advice of E. T. Dumble, who, at that time, was at the head of the Rio Bravo Oil Company. I know I gave him a certain number of hours to get the money, and during that time he left the country. I am sensible of a strong feeling against Mr. Griffin and it grew out of the fact that he swindled me. He represented he had property and he didn't have. I gave him a mortgage on property he didn't have. I was a banker and I had sufficient confidence in him to loan him fifteen hundred dollars on what I thought was twenty thousand dollars of security and after I loaned him the money and it was not paid I was willing to go on the stand at any time to testify about his character; and I would go out of my way to some extent to do it. I would go three hundred

miles out of my way." **[2878]** When I am asked if I ever had a pass from any of the railroads controlled by the Southern Pacific Company my reply is: "Well, now, when I was Judge I may have had a trip pass over the Central; I am not certain—but it was not at that time controlled by the Southern Pacific, no sir. It has been about seventeen years ago. I did travel on trip passes. I have never had any before or since. And we had no anti-pass law then and it was a customary thing for officials to take trip passes. I am sure I have had annual passes but not over any of the Southern Pacific roads. I remember to have had an annual pass over the Fort Worth and Denver and I think I had one over the Santa Fe. I know I had one over the Katy. The Southern Pacific doesn't reach my town. Well, at that time I was an official and was recognized only from the fact I was an official. I was a poor man at that time. At the time I loaned Mr. Griffin the money in 1904 I had a good enough opinion of Mr. Griffin to lend him the money. I knew he was windy and a blarney and so forth, but I didn't think he would take the risk of mortgaging property that didn't belong to him and while I didn't have an excellent opinion of Mr. Griffin I had a fair opinion of him. I thought I would get the money back or I would not have loaned it. My opinion of him was good enough at that time for me to lend him fifteen hundred dollars on the security that he offered. When you ask me where the mortgage is that I have talked so much about and have'nt produced I will say that I made

a search for it in my papers **[2879]** but it has been a long time and I failed to find it. At the time I loaned that money, as a matter of fact, I thought every dollar was fully covered by the security given me and many times over. I was willing as a banker to bid in that land that I held as security in the absence of Mr. Griffin at fifty dollars knowing it was worth much more than that and to sell it at a profit of one hundred and fifty dollars. When I sold it for one hundred and fifty dollars it was during an excitement and I was willing to take a chance on the excitement at that time and profit by it. I should have given Mr. Griffin credit for what I bid the property in for but I never did. When you ask me I confess that I never gave him any credit and sued him for the full amount and interest, although I sold his property, I answer I did'nt draw up the petition and it never proceeded to judgment because I could'nt get service on Mr. Griffin. I don't know what became of the deed of trust which Mr. Griffin gave me. I have a world of papers in connection with different banks and I have destroyed a lot of them and a lot of them are down in the old vault. There are some things I can recollect clearly and some things are a little hazy and some perhaps I have forgotten altogether. I have some recollection on the point of the security he gave me and while it is not as clear as I would like to have it, my best recollection is and it is reasonably clear that it embraced fifteen to twenty thousand barrels of oil. I can not give you the names and addresses of the persons who called on

me at the bank and told me Mr. Griffin had swindled me. It would be utterly impossible. I cannot give the names **[2880]** of any one of them. I told you that several persons came to my bank after Mr. Griffin left and told me the character of the man he was and I now say I cannot tell you who they were and all my testimony is to be believed along the same line as you would take that statement. I have not brought in any deed to show that that property I mentioned was actually mortgaged and there is nothing to show that my statement is correct at all. I know Mr. Bass. He is a man to be believed. He is not a liar and a thief and as far as I know he is a truthful, good man. I have not seen Mr. Bass for four or five years. Mr. Griffin was associated with Mr. Bass. As best I remember I inquired of Mr. Bass within a short time after Mr. Griffin left where he was, then I got busy with other matters and didn't think about it after a little while so I did not pursue the matter for a number of years, forgot all about it. I could not find Mr. Griffin's address when I inquired which was a few months after he left. I have not had my recollection refreshed about how many acres of land Mr. Griffin put up as security for the note because I have not seen the original of any instrument but to the best of my recollection it was one acre. I am quite sure that if he mortgaged five acres that it turned out to be only one acre because I sold one acre afterwards and made title to one acre. He possibly may have mortgaged more and the mortgage itself may have called for five acres. This land

that was mortgaged to me was what you call edge land, which is prospective oil land not yet proven. If it turns out, upon proof **[2881]** by the drill, to be valueless for its petroleum, it would not be worth anything. On the other hand if it turned out to be oil producing in commercial quantities it would have an enhanced value of anything from five to ten thousand dollars an acre, depending on the character of the oil. I did not go out and investigate to find out whether the security Mr. Griffin was giving me was good although, as I said before, bankers don't loan on any gamble but they must know what they are lending on. I took Mr. Griffin's written statement for that. This money was loaned to Mr. Griffin to finish his well with. He had some trouble with his pipe and he had incurred some indebtedness because of this trouble and he needed this money for the purpose of completing the well and when I am asked as a man acquainted with oil affairs and as an active business man in and around the oil fields and must have known positively that Mr. Griffin could not have had fifteen thousand barrels of oil as the well was not finished, I say: "Well, the well came in a flowing well and the reports are usually exaggerated, and I had some information about the well and that it produced quite a great deal of oil; and Mr. Griffin made the statement to me when he mortgaged the property and I accepted his statement as true. I knew the well was not finished and that the money was to be procured to finish the well, and yet I say under oath that he represented to me that he had produced

from that well fifteen thousand barrels of oil. Besides the land which Griffin mortgaged to me there was included in the mortgage one thousand barrel wooden tank, a pump, some steam heads, twelve hundred feet of casing, **[2882]** a derrick, the camp and equipment and some strings of pipe. I don't know whether or not there was twenty seven hundred feet of pipe but it included all the pipe he had there. It also included a rotary worth five hundred dollars and a boiler worth five hundred dollars but he did'nt own either one of them and I also took a blanket security, in that instrument, on certain extras about the place consisting of pipe, tools, tongues, wrenches, couplings. I do not say that this personalty had a value of five hundred dollars; the mortgage may have stated the value. I will say that the value of the personalty, including the rigs and tanks as junk, and that was the only way to value it, would be anywhere from fifteen hundred and twenty five hundred dollars. I would probably get about fifteen hundred dollars out of it as junk. The land has a fluctuating, speculative value. It may be valuable this month and to morrow not worth a cent. If it has a value it has it for oil; if it has not any oil it has no value. Its value would depend, if it was like the balance of the field, I mean like the heart of the field—it would be worth from five to ten thousand dollars an acre and if there had been only one acre and it appeared to be valuable oil land I would have been amply secured on my fifteen hundred dollar note. The cost of that twenty-seven hundred feet of pipe would depend

upon the size of the pipe and the character of it. If it was six or eight inch pipe it would have been worth in excess of two thousand dollars but I think this pipe was three or four inch pipe and was worth from fifteen to thirty five or forty cents a foot. [2883] I knew that Mr. Griffin had trouble with that well after I made this loan to him. The well had flowed a good deal and he pumped it with the steam heads on and he produced quite a lot of oil, I understood. I don't know what the character of the trouble was. I know he had trouble. I don't deny that is true; I just say I know he had trouble but I don't know its character. I think this was right after the failure of the Spindletop Power Company. This note was a sixty day note dated April 26, 1904, and the note was due June 26, 1904. I do not remember receiving a letter from Mr. Griffin in the latter part of May, 1904, in which he told me that he had become completely discouraged with the property upon which I had a mortgage and that he would be unable to pay that note. I didn't get any such letter. I didn't have any conversation with Mrs. Griffin about what her husband intended to do about the note. I don't recollect ever having seen Mrs. Griffin. I did not make a statement to Mrs. Griffin in which I said: "I don't want to take that over that property. It is junk to me. I would like Mr. Griffin to go back there and operate that property, and if he needs money, further help, I will give it to him." I didn't know Griffin was married until after he had left there and I received letters from his wife and I didn't say to Mrs. Griffin in any

conversation when she told me that Mr. Griffin wouldn't go back there, that I would take some steps against him and I did not become very angry. When you ask me whether or not I will affirm on my oath, that the trust mortgage which I refer to stated that a certain quantity [2884] of oil was included in that mortgage I will say that to the best of my recollection I believe it was. The chances are that the mortgage covered oil thereafter to be produced from the well as oil already produced. After the maturity of the note I had an opportunity, for how long I could not state, when Mr. Griffin was right in my neighborhood constantly, to bring a suit on this note and reduce it to a judgment but I never did it. This time might possibly have been two months but I don't think it was. I have no desire, on direct examination, to have the court understand that Mr. Griffin had fled from my wrath and the jurisdiction of the court and I don't think that would be a fair inference from my testimony.

RE-DIRECT EXAMINATION.

I have no independent recollection as to whether or not this mortgage transaction was covered by one instrument or more than one. The regular way to do it would be to have two but often you embrace it in one instrument and first record it as a deed of trust and then file it later and leave it in the Clerk's office as a chattel mortgage. Whether in this instrument there were one or two I am unable to remember because it could have been either way. Well, a deed of

trust you send to the clerk and he transcribes it on his records and that deed of trust is sent back to you. A chattel mortgage is filed with the clerk. It costs you the regular recording fee to record a deed of trust; only twenty-five cents to file a chattel mortgage. He has files [2885] under which he numbers the original instruments, and he retains that on this file. When you take it out your mortgage is gone. Now, the regular way would be to have two instruments, one to leave with the clerk, or the chattel mortgage, and the other to retain, the certified—I mean the original of your deed of trust, which is filed,—just depending on whether a man had time to write two instruments. If I was busy I would have made it in one, and if I had plenty of time I would have written it in two, and I don't remember whether I made two instruments or one. Mr. Griffin did own the derrick and the land and that was all that he did own. I visited the land at an early date after the giving of this mortgage and note and I found an earthen reservoir there. I found water in it with a thing scum. The tank was big enough to hold fifteen to twenty thousand barrels of oil. When I say tank I mean a sump hole. I cannot give you the name of the man who owned any of the property. I cannot give you the name of the people who owned the steam heads worth five hundred dollars or the twelve hundred feet of casing worth five hundred dollars. I did find out that Mr. Griffin owned the derrick. I do not know the name of the man whom I found on my investigation owned the three strings of pipe, of

twenty seven hundred feet. I do not know the name of the man whom, in my investigation, I found owned the two pumps worth twenty five hundred dollars. I will answer it all by saying I don't remember the name of any man who owned any of the property. I think the Parkersburg Tank Company owned the tank. That is my best recollection. That is all I can remember. [2886] I know I didn't give Mr. Griffin credit for the two hundred dollars that I realized from selling some of the property because he was only entitled to credit for what the property brought in a sale under the deed of trust.

Mr Lewers—I offer in evidence at this time, in connection with the testimony of the witness George W. Armstrong, a certified copy of the deed of trust referred to by him in his evidence, dated April 27, 1904, certified by the clerk of the county court of Hardin county, Texas, under date of July 26, 1913, and read the same into the record as follows:

"THE STATE OF TEXAS,
COUNTY OF HARDIN, KNOW ALL MEN BY THESE PRESENTS: That I, T. J. Griffin of the County of Jefferson, and state of Texas, being justly indebted to the First National Bank of Sour Lake, Texas, in the sum of fifteen hundred ($1500.00) dollars as evidenced by promissory note of even date in words and figures substantially as follows: Sour Lake, Texas, April 26" 1904.

Sixty days after date I promise to pay to the order of the First Natl. Bank of Sour Lake, at the First National Bank, Sour Lake, fifteen hundred no/100

dollars ($1500.00) for value received with interest at the rate of eight per cent per annum from maturity until paid, this note is secured by pledge of the securities, mentioned on the reverse hereof with the right to call for additional security should the same decline and on failure to respond, this obligation [**2887**] shall be deemed to be due and payable on demand, with full power and authority to sell and assign and deliver the whole of the said property or any part thereof or any substitute therefor or any addition thereto at public or private sale at the option of the said first National Bank of Sour Lake, on the non-performance of this premises and without further notice, applying the net proceeds first to the payment of this note and the balance at the option of the First Natl. Bank of Sour Lake to any other liability to said First Natl. Bank of Sour Lake, now existing or which may hereafter accrue and accounting to me for the surplus if any and hereby agree to pay attorneys fees of 10 per cent in case of suit. It is further agreed that the pledges shall have the right to buy in the said securities at market rate at said private or public sale. T. J. Griffin. The payment of which note according to its tenor and effect I desire to assure and secure the said First National Bank of Sour Lake or its assigns in consideration thereof and for the purposes and trusts hereinafter set forth and declared and also in consideration of ten dollars to me in hand paid the receipt whereof is hereby acknowledged, have granted, bargained and sold and by these presents do grant, bargain, sell and convey unto C. L. Edwards trustee of

the County of Hardin, in the State of Texas, the following described property, One acre of land, to wit: acre number three (3) of the John D. Jackson subdivision of the H. G. King original survey of forty two (42) acres patent number two hundred and twenty five (225) situated in Hardin County, Texas, in [2888] what is known as the Batson Oil field, same being in strip B. of said Jackson subdivision. Also an oil well now producing and in operation on the acre of land above described, same being locally known as the T. J. Griffin well No. 1, number one, together with all and singular the rights and appurtenances to the same belonging or in anywise incident and appertaining. And I do by these presents bind myself, my heirs, executors and administrators to warrant and forever defend all and singular the said property unto the said C. L. Edwards Trustee his heirs or assigns against the claim or claims of any and all persons whomsover lawfully claiming or to claim the same or any part thereof. This conveyance however is intended as a trust and is made for and upon the following trusts terms and conditions, to-wit: In the event I, T. J. Griffin shall well and truly pay the said note and interest due thereon to the legal holder thereof when the same shall become due and then this deed and all herein contained to be null and void, but in case of default on my part or on the part of my assigns to pay the said note according to its tenor and effect, it shall thereupon or at any time thereafter the same remaining, unpaid, be the duty of the said C. L. Edwards trustee and of his success-

ors as hereinafter provided at the request of the said First National Bank of Sour Lake or the legal holders of said notes which request is hereby presumed to enforce this trust to sell said hereinbefore described property at the court house door of said Hardin County, to the highest bidder for cash on the first Tuesday of same month between the hours of 10 o'clock A. M. and 4 o'clock P. M. [**2889**] at public first giving at least twenty one days notice of the time, place and terms of sale by causing a notice thereof to be published in some newspaper published in the County of Hardin, once a week for three successive weeks next before the day of sale and also by posting written or printed notices of the time place and terms of such sale at three different public places in said county, one of which shall be the court house door of said county for not less than twenty one successive days next before the day of sale and to make due conveyance to the purchaser or purchasers with general warranty and the title to such purchaser or purchasers when so made by said trustee shall bind myself, my heirs, executors and administrators to warrant and forever defend, with the proceeds arising from such sale the said trustee shall first pay all the expenses of advertising, sale and conveyance including a commission of ten per cent principal and interest due and unpaid on said note to the said First National Bank of Sour Lake, or other holder of said note and the remaining balance if any, shall pay over to the said T. J. Griffin his heirs or assigns. In case of the death inability, refusal or failure from any

cause the said trustee shall fail or be unable to act then R. H. Halland of the County of Hardin, in the State of Texas, is hereby constituted and appointed alternate trustee who shall thereupon hold, possess and execute all the titles, rights, powers and duties herein conferred on said trustee and whose conveyance to the purchaser shall be equally valid and effective. And in the event the said trustee and alternate [**2890**] trustee should die or from any cause shall fail or be unable to act in carrying out the provision of this deed then the legal holder of said note shall without other formality than an appointment and designation in writing name, constitute and appoint a successor and substitute who shall thereupon hold, possess and execute all the rights, title, powers and duties, herein conferred on said trustee named and whose conveyance to the purchaser shall be full evidence of the matters therein stated, and no other proof shall be requisite of request by the holder of said indebtedness to the trustee to enforce this trust or of the advertisement or sale or any particulars thereof and all prerequisites to said sale shall be presumed to have been performed, and the sale made under the powers herein granted shall forever be a perpetual bar against the maker of this trust his heirs and assigns. The legal owner of said indebtedness shall have equal right to become the purchaser at such sale, being the highest bidder.

Witness my hand at Sour Lake, Texas, this 27 day of April, 1904.

T. J. Griffin.

"THE STATE OF TEXAS,
COUNTY OF HARDIN. Before me, J. A. Hoover, a Notary Public in and for Hardin County, Texas, on this day personally appeared T. J. Griffin, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and consideration therein expressed. [2891]

Given under my hand and seal of office at Sour Lake, this 27 day of April, A. D. 1904.

J. A. Hoover, Notary Public,
(Seal) Hardin County, Texas.

THE STATE OF TEXAS,
COUNTY OF HARDIN. I, R. M. COLLINS Clerk of the County Court in an and for said County do certify that the foregoing deed of trust dated the 27 day of April 1904, with the certificates of authentication was filed for record in my office the 29 day of April 1904 at 8 o'clock A. M. and duly recorded the 3 day of May 1904 at 10 o'clock A. M. in D. T. record of said County in Vol. 3, pages 459 to 462.

Witness my hand and the seal of the County Court of said County at office in Kountze, the day and year last above written. R. M. COLLINS Clerk County Court,

Hardin County, Texas.
(Seal) By J. D. Lowrey Deputy.

THE STATE OF TEXAS,
COUNTY OF HARDIN. I, J. J. Bevil Clerk of the County Court in and for Hardin County, Texas, do hereby certify that the above and foregoing is a true and correct copy of the record as the same appears of record in D. T. record Vo. 3, page 459 et seq.

Given under my hand and seal of office this the 26th day of July, A. D. 1913. J. J. Bevil Clerk County Court,
Hardin County, Texas.
By M. L. Chance Deputy."

(SEAL: County Court of
Hardin, Texas.) [**2892**]

MR MILLS—No objection.

The certified copy of deed of trust last referred to and offered in evidence and read into the record is marked "Defendants' Exhibit 183—L.L."

Mr Lewers: I also offer in evidence, in the same connection, certified copy of registry entry of chattel mortgage, dated April 27, 1904, for $1500, given to C. L. Edwards, trustee, by T. J. Griffin, certified under the seal of the county clerk of Hardin county, Texas, and read the same into the record as follows:

Date of Reception:	*Name of Mortgagor*:	
Apl. 29, 04-8 A.M.	T. J. Griffin	
	Name of Mortgagee:	
	C. L. Edwards, trustee	
Date of Instrument:	*Amount secured*:	*When due*:
Apl. 27, 04	1500.00	June. 26, 04.

Property Mortgaged:

1 Rotary Rig complete on acres No. 3 of J. D. Jack-

son's subdiv. of H. G. King sur. also ½ of the production of an oil well now flowing on the T. J. Griffin well No. one.

The State of Texas)
County of Hardin) I, J. J. Bevil, Clerk of the County Court in and for Hardin County, Texas, do hereby certify that the above and foregoing is a true and correct copy of the Chattel Mortgage from T. J. Griffin to C. L. Edwards, trustee, dated Apl. 27, 04, as the same now appears of record in my office in Chattel Mortgage Register, No. 1. [**2893**] on page 56.

Given under my hand and seal of office at Kountze, Texas, this 26th day of July, A. D. 1913.

J. J. Bevil, County Clerk
Hardin County Texas.

(Seal: COUNTY COURT
OF HARDIN COUNTY, TEXAS)"

I. N. BETTISON, a witness called and sworn on behalf of the defendants, testified as follows:

DIRECT EXAMINATION

I live at San Antonio, and have lived there two and one-half years, and have been engaged in the business of oil drilling and contracting for about twenty years, at Beaumont, Sour Lake, Batson, Saratoga, Jennings, Louisiana, Mobile, Alabama, and in Oklahoma; I own some oil land at Sour Lake and Batson. I was at Sour Lake in 1903; I was acquainted with Thomas J. Griffin, and knew him well in a general

way and worked right along with him at Spindletop in the boom days, and from there to Sour Lake. I was acquainted with his general reputation in the community for truth and veracity; I heard it discussed in the community by everybody in the field; it was considered very bad.

CROSS-EXAMINATION
OF I. N. BETTISON

If Mr. Griffin was asked what he thought of my reputation for truth and veracity, if he told the truth he would say that my reputation was good. I am quite well satisfied with my reputation. My credit will show that my reputation is alright and I am willing to have it investigated from the cradle up. I have nothing in the world against Mr. Griffin. I have had absolutely no trouble with him. I never had a word with him in my life and I never had any business dealings with him. When you ask me to give the names and [**2894**] addresses of the persons in Sour Lake who told me that his reputation is bad, it is just as I told you in a general way, it is generally known all over the field and when you ask me the names of the men who told me in Sour Lake, and to give their present addresses, well, I didn't give it to you. I told you I knew, in a general way. I cannot now give you the name of any person there or the present address of any person who told me that Mr. Griffin's reputation was bad. I know it in a general way. I didn't give anybody's name.

Mr. Osceola Archer, at Sour Lake and at Spindle-

top in 1902, told me that Griffin's reputation for truth and veracity and integrity was bad. I don't remember who else told me. I paid no attention to it. I knew his general reputation — stood right on my derrick and told me that he was making more money than any man on the whole field, when I knew he could not pay his debts. I mention that to show you that I knew what his reputation was. I have nothing against Griffin; if I met him today I would treat him as I always treated him. He and I never had a word in our lives. I drilled a well for the Rio Bravo Oil Company at Saratoga. I think it was in 1905. It was under the direction of Prof. E. T. Dumble. The price was about $5600. I just finished one well for the San Antonio, Uvalde & Gulf Railroad. The contract price, I think, was $5000. I have had no business of any kind with the Southern Pacific Company or any of its subsidiaries except washing a well for them after I drilled this one for them at Saratoga. They had a well that was sanded up and I washed it for them. The company that I washed it for was the Rio Bravo. That was in 1905, right after I finished this other well. I have done drilling for the Texas Company. I drilled two wells for them, I believe it was, at Batson, and then — not the Texas Company, either; the Producers Company; that is practically the same thing; that is the producing end of the Texas Company. Then I had charge of drilling [2895] some out west in Reeves County for several months. I should say that I have done $8000 worth of work for the Texas Company.

JUDGE OCEOLA ARCHER, a witness called and sworn on behalf of the defendants, testified as follows:

DIRECT EXAMINATION

I lived at San Antonio for four years and was engaged in the fire insurance and oil business; my insurance business yields me five or six thousand dollars a year; I was drilling two wells at Somerset, Texas, but went out of the oil business when I lost my eyesight, and went into the insurance business, but during the last few months I have taken some leases at Somerset; have about 1720 acres; I am a member of the San Antonio Rotary Club, the San Antonio Automobile Club, and also of the Chamber of Commerce. I lived at Sour Lake, I think, in the first part of 1903, or it might have been in 1902; I was superintendent for F. S. Henry, drilling wells, and remained at Sour Lake until the Batson field opened up.

I was acquainted there with Thomas J. Griffin, and knew that he was connected with the Spindletop Power Company; his nickname was "Spindletop" Griffin; I was acquainted with his general reputation for truth and veracity in that community; it was very bad; I have no personal feelings against Mr. Griffin whatsoever.

ROBERT LEE BLAFFER, a witness called and sworn on behalf of the defendants, testified as follows:

DIRECT EXAMINATION

I have lived about five years at Houston; I was in

the business of producing oil, mostly at Humble, and have oil interests in some of the large companies; have been engaged in that business from 1892 to 1902. I first became interested in the oil business at Beaumont and Spindletop, and have two or three companies at Beau- [2896] mont that are not incorporated, but are operating at the present time; my personal operating expenses run to about six or seven thousand dollars a month.

I was acquainted with Thomas J. Griffin and first met him at Spindletop, in the Spring or summer of 1902, and knew him for about a couple of years after that, but never did any direct business with him; I saw Griffin going through the fields every day while I was on Spindletop, and knew he was connected with the Spindletop Power Company; during the time he was with that company I knew him at Sour Lake, principally.

To a certain extent I was acquainted with his reputation in that community for truth and veracity. When I say to a certain extent I mean that I have heard him discussed by several people. I never had any business with him directly that I could ascertain his general reputation for — but I think I did know his general reputation aside from my own individual knowledge. I don't think it was very good. I can't say how generally he was talked about in that respect. In that community he was generally called Tom Griffin. I don't know of his going by any other name. I am well acquainted with a man by the name of J. B. Treadwell. I first met him in New Orleans five or

six months before I came to Beaumont. I have been in his employ. He sent me a telegram to New Orleans either in March or April, 1902, asking me to come to Beaumont. He gave me a position with him. I was acting in a sort of confidential capacity with Mr. Treadwell until he left to go back to California, I think the first of October of the same year, and I stayed with the interests which he represented about a month or six weeks afterwards, up to the first of November or the first of December, 1902. I was not employed by him after that [**2897**] time. He turned his interest over to somebody else and I was employed by this other party. I think Mr. Treadwell left in September, 1902. While I was employed by him I was in a position to keep track of the correspondence, or all the files in his office. I was a sort of private secretary or scout, private scout, for Mr. Treadwell, and he would keep me informed as to everything that was going on in connection with the business. Then I ciphered lots of code messages that he got. It was of a sort of confidential nature. I would have access to any papers that he had, I think. He never kept anything from me that I know of in connection with the oil business. I never saw in his possession, or any other place, any maps of the oil fields in California showing territory in the lower part of Kern County up into the Coalinga district and Fresno County, nor did I ever see in his possession any map that showed the geological formations and had the name of a geologist upon it covering that territory. I never saw a map of that kind, of that description. I never saw

in his possession any map that showed the unsurveyed lands in what is known as the McKittrick district or what is known as the Elk Hills in Kern County, California. I saw all the maps he had there in connection with this coast country field here—Spindletop. That is the only map I ever saw—Sour Lake. They were maps though, that could be purchased on the street, you know. He had no California maps here. I never saw any. I do not know of his making a copy of any California map at any time while he was here and I do not know of his ever giving Thomas J. [2898] Griffin a copy of any map that he had. Mr. Treadwell never informed me that he had shown any map of the California oil fields to Mr. Griffin or to anybody else in Texas. He never showed me anything in connection with California at all. He never told me that he had shown Mr. M. B. Bass any copy of a map or any map of the oil fields of California. I do not know of his asking Mr. Thomas J. Griffin or M. B. Bass to go out to California and locate on any oil lands out there or prospective oil lands. I have no recollection of hearing of anything of that kind. I never received a communication from Mr. Treadwell after he had gone to California asking me to go out there. I went out there and visited Mr. Treadwell. I think that was in the month of December, 1902. I went out there and I met him in Bakersfield, just paid him a visit there, and we went on to San Francisco together. He communicated with me in 1903 in regard to going to Alaska. He was getting up an expedition to go to Alaska and he asked

me if I wanted to go out there with him to Alaska and I told him no, I didn't want to go. He never asked me to go out to California and locate upon any oil lands or to obtain any interest in the oil lands there.

CROSS EXAMINATION.

The Spindletop Power Company, when I knew it, was furnishing compressed air to wells around Spindletop field. They had two or three inch lines from the Power Company to the wells and they would blow the wells for a certain percentage of the oil. When I came to Beaumont in the spring [**2899**] of 1902 I don't think the Spindletop Power Company was organized and doing business. It was organized that summer. It was another company called the Palestine & Beaumont Company that Mr. Griffin was connected with in some capacity. They had air machinery and were blowing these wells. Everything Mr. Treadwell had up there in the way of wells he rented in his own name. I was working for Mr. Treadwell and I didn't recognize anybody but Mr. Treadwell. There were two wells called the Treadwell wells that he was operating. They were at that time, I remember, flowing naturally. There were two big wells that he had purchased. I do not remember when they were connected up with compressed air by the Spindletop Power Company. Mr. Treadwell shipped the oil out in his own name. He paid all the bills and everything was charged to J. B. Treadwell. I took it for granted that he was operating property for the Southern Pacific. I think he was represent-

ing the Southern Pacific Railroad. I know I had railroad passes issued to me from the railroad company at that time. The wells that he was operating, the only wells that I know, were wells that were known as the Treadwell wells. These were the two wells I spoke of awhile ago. I presume the wells I mentioned were the ones he was operating for the Southern Pacific Company. I know Mr. Harriman came to the oil fields during the time I was acting in the capacity of amanuensis. I was not there that day. I heard he had been there. I was busy. Mr. Treadwell sent me somewhere out in the country. That visit of Mr. Harriman's was sometime in the spring or summer of 1902. I think it was 1902. [**2900**] I don't know how long Mr. Harriman stayed. I was not there that day and I didn't see him. I have nothing personally against Mr. Griffin. Mr. Griffin was a hard working man out in that field, a decent, law-abiding citizen; he seemed to be a busy man. I never had any personal business with Mr. Griffin. I just met him in a general way in the field. I had no occasion to have any business with Mr. Griffin. Speaking of the occasion of 1902 when I was there I naturally would be prejudiced from what conversation I heard against the man. I never investigated him. I never had enough interest in it to do so. I had no reason to believe that Mr. Griffin was not a man worthy of belief until after I heard this gossip, just this conversation about him. I never paid any attention to it. That would naturally prejudice me. I have not seen Mr. Griffin for a long time. I have

not anything against him personally at all, and when you ask me if in 1902 I would have believed Mr. Griffin and thought well of him then I answer, "I had no occasion to believe otherwise when I first met him". It was not until I heard this conversation, until after he had come up to Sour Lake in connection with the Spindletop Power Company. I think Mr. Treadwell knew Mr. Griffin at that time. I think he knew him pretty well. I don't know how well he knew him. I take it for granted he knew him as well as I did. I would not consider I knew him very well because I did not have occasion to do business with him. I was acquainted with Mr. E. T. Dumble. I met him the last month that Mr. Treadwell was in Beaumont or probably a few days [**2901**] before Mr. Treadwell left there and I have known him ever since. When I am asked if I ever heard the statement that Mr. Dumble was drawing $15,000 a year from the company because he advised the company to hold onto a bunch of land in California which is oil land, well, I will tell you how that conversation that I had with Mr. Flocker came out. Mr. Flocker and I were speaking in a general way about conditions; about this law suit. I think it was last winter or early spring. I told Mr. Flocker that I was one day talking to a man by the name of Ben Andrews in just a casual sort of way at a club and we were speaking about the relative merits of several oil men at the head of large corporations. I asked Mr. Andrews, "where is it that Mr. Dumble gets his great influence with the Southern Pacific and is at the head of the big company that he is?" Mr.

Andrews said he thought that the reason it was so was that the Southern Pacific were going to sell some land out in California and that Mr. Dumble advised them not to do it. That was just idle gossip as we were sitting at the club there talking, and we spoke of that in a general way. At the time of that conversation I had an office in the Carter Building in this city. I had an interview with Mr. Flocker sometime that winter of 1912-1913. I told Mr. Flocker in that conversation that I had come out to the Kern River field in the fall of 1902 to visit Mr. Treadwell and that Mr. Treadwell took me over the oil field. I don't know whether we drove over the West side, East side or the North side. Mr. Treadwell at that time told me that he thought well of the wells they were pumping there. I [**2902**] asked him how long lived they were. Mr. Treadwell told me that he thought well of the property right in there; that he was operating for the Southern Pacific Railroad. When I am asked if I told Mr. Flocker in that conversation with him that Mr. Treadwell held land at Beaumont for the Southern Pacific Company in his own name and people didn't find it out for a long time I answer, "Well, I don't know whether people found it out for a long time." I was working for Mr. Treadwell and I take it for granted that Mr. Treadwell was working for the Southern Pacific Railroad. If anybody would have taken the time, they could have found out Mr. Treadwell was connected with the Southern Pacific—I would suppose so. I told Mr. Flocker that Mr. Treadwell held property in Beaumont "but I don't

remember telling him that people didn't know anything about it for a long while". I did not say to Mr. Flocker in that conversation that I thought well of Mr. Griffin. I said I thought I might believe him at that time. I don't remember telling Mr. Flocker on that occasion that Mr. Griffin had never been in any trouble in Texas to my knowledge but I don't remember of having any occasion of knowing of Mr. Griffin's ever being in any trouble before. I recollect that Mr. Flocker asked me whether Mr. Treadwell knew Mr. Griffin and I told him I thought Mr. Treadwell did know Mr. Griffin. I think Mr. Treadwell would be mistaken. It is my impression that Mr. Treadwell did know Mr. Griffin. My attention being called to Defendant's Exhibit 115, which is a map of Kern County and which Mr. Treadwell on the stand testified he may have had with him in Texas, this is the first time [**2903**] I ever saw this map. I never saw any map in connection with California at all. Mr. Treadwell might have had that map in Texas and I not know it.

RE-DIRECT EXAMINATION.

I came pretty near seeing all of Mr. Treadwell's papers and he seemed to have a lot of confidence in me and he never with held anything from me that I know of. I remained on friendly relations with him after I left here. The time I went out to California I went to Los Angeles and I think I had a wire from Mr. Treadwell to come to Bakersfield and I met him in Bakersfield and he went to the train to meet me

and I went over there and spent a night and the next day went to San Francisco. The place where we went was to a house at Kern River, I think. We did not drive away from that field, not to any extent, just went to those wells. I was interested because they were being operated so differently from ours. Nothing went on there except through interest he had in making my trip pleasant and interesting to me, I suppose. When I first went to Bakersfield I had no reasons to doubt Mr. Griffin's word. I had just met him. It was later I had reasons to question his reputation as to truth and veracity from the gossip that went around about Mr. Griffin. I roomed with a man who was employed by his company and I discussed Mr. Griffin with that gentleman in a general way and with others too. [2904]

Personally I have nothing against Mr. Griffin.

M. B. BASS, a witness called and sworn on behalf of the defendants, testified as follows:

DIRECT EXAMINATION

I live at San Antonio, Texas, and prior to going there I was living at Palestine; I lived at Beaumont from some time in the spring of 1901 to the spring of 1904; I organized the Spindletop Power Company in 1902. I knew Thomas J. Griffin, who was connected with the Spindletop Power Company in the capacity of vice president and general manager. The company continued to operate at Beaumont for about a year and then moved to Sour Lake, some time in 1903, and continued to operate there until it went into

the hands of a receiver. Mr. Griffin was continuously in the employ of the Spindletop Power Company until it went into the hands of a receiver, and was engaged in his duties as vice president and general manager during that period, and I was active in the affairs of the company up to that time; I did not know of Griffin making a trip to California while he was connected with the Spindletop Power Company; that time would include clear up to the time the company went into the hands of the receiver; Mr. Griffin sometimes went away and was gone a few days. Of course, I don't know where he was when he was gone but he didn't tell me at any time that he was going to California. Of course I didn't see him every day as I stayed at Beaumont and he stayed at Sour Lake and sometimes I wouldn't go over there for a week.

I am acquainted with J. B. Treadwell and knew him at Spindletop and Beaumont, somewhere around January, 1902, but never had any conversation with him in reference to going to California to locate oil lands, and do not remember him ever showing me any map of the California oil fields. I do not remember Mr. Treadwell suggesting that he and Griffin and I should go to California and [**2905**] locate certain even numbered sections, interspersed with lands that the railroad owned. I do not remember Treadwell showing me a map purporting to represent the territory from Sunset, Kern County, California, up to Coalinga, which contained geological information, or of Thomas Griffin ever telling me that Mr. Treadwell had asked him to go to California; I have no recollec-

tion of Mr. Treadwell or Griffin making the proposition that we should go together into the oil fields in California; if such a request had been made of me at that time, well, I don't know but that I would have forgotten it. I have forgotten a whole lot of things that happened down there.

I remember having an interview with Mr. Ira M. Flocker about five months ago, and I signed a statement written by him. I made an objection to one of the statements written by Mr. Flocker regarding Treadwell's showing me a map of the California oil fields, and told Flocker that I could not sign that because I did not remember the map; Flocker thereupon took that out and made it read that I had seen maps in Treadwell's office. I saw some maps in Treadwell's office; they might have been of Spindletop, but I do not remember what they were, really.

CROSS EXAMINATION OF M. B. BASS

I am sixty years old. I had a sickness in the fall of 1903 between the first of October and first of January, 1904. My impression is that I was sick from Christmas, 1903, and I was under the weather for quite awhile, say six or eight months. I was sick while the company went into the hands of a receiver and it continued right through that time. My malady was kidney trouble. I was put on a very strict diet and it kept me very weak all the time. We had litigation with a company known as the Texas Company. They [**2906**] were operating in Texas in the

oil business. Our plant was on the southern side of their tract of land. They had a good big tract of land there. And we wanted to reach the wells on the northern portion of this tract, and we undertook to go across there with our pipeline. And we had condemnation proceedings, and the court allowed us to go across, and before we got across they enjoined us, and we fought around there for a few days, and they finally brought us up to the Superior Court; and in that manner we had to go several miles out of our way, run a small pipeline several miles around this tract to get to the wells, and in that way our power was reduced to a mere minimum. We could not utilize the plant. This litigation with the Texas Company, I think, was the paramount reason for the failure of the Spindletop Power Company. At least it was one of the primary causes. It had been the custom in the field there, prior to that trouble that we had with the Texas Company for different oil companies to permit the crossing of lines over their property promiscuously when it didn't interfere with the operation of their business; all the oil companies up to that time, I think, had had the privilege of crossing and laying their pipe lines in such a way that it didn't interfere. The Spindletop Power Company had given formal permission to other companies to cross its lands with pipe lines free of charge. The first company to put compressed air on a well in the Spindletop field was the Palestine and Beaumont Oil Company. I was President of that company. The man who actually did the mechanical work of placing

the air on the first well in that field was Mr. Thomas J. Griffin. [2907] From my knowledge of Mr. Griffin I regard him as a practical, competent man in and about the operation of an oil well. I consider him a very valuable man along those lines and regard him as an expert mechanic. In the operation of machinery in oil work on the field there was always knotty questions coming up about something that requires a pretty good head to overcome and Mr. Griffin seemed adapted to that line of work. I have known him to go into an iron factory and show them how to make a pattern of certain things that we wanted about the machinery, or in a break or something like that, you know. What I have reference to is his resourcefulness and mechanical skill. He seemed to be able to take up those things and carry them to a successful termination. Mr. Griffin, I think, did most of my work and when it is asked of me if I know of any better man in the Spindletop field in a mechanical way, or a more competent man in and about the oil field than Mr. Griffin, I will say, "Well there may have been some there but I don't know that I had any connection with them". Whenever any of the wells in the Spindletop would go wild or blow up, or get into trouble Mr. Griffin was called into consultation to assist. He was called on several times and brought into requisition, and I think, closed one or two wells—either Sour Lake or Spindletop; I have forgotten which. I know of one pretty bad one that was closed at Sour Lake; the well was going wild. He had to go in and shut it off someway and he did it. In going

into a new field to begin the operation of a well I would regard Mr. Griffin as a thoroughly [**2908**] competent man to take charge of drilling operations. Mr. Griffin was at Spindletop in the years 1902 and '03 at the time that I stated that I knew Mr. Treadwell quite well. During that time Mr. Griffin had an opportunity to know Mr. Treadwell and I know that he did know Mr. Treadwell and that Mr. Treadwell knew him. In the Spindletop field an oil man in the discharge of his duties there, was first in one part of the field and then in another, backwards and forwards—and some days they might meet several times during the day and then it might be a week. I don't know how often Mr. Griffin and Mr. Treadwell did meet but I suppose they undoubtedly came together a great many times. The Spindletop field at that time covered about one hundred acres of land and the Red Book stated that forty or fifty million barrels of oil was taken from that field as it was very productive for such a small area. There were from seventy five to one hundred and fifty wells on this land. I think Mr. Treadwell had a couple of wells there which I think was known as the Yellow Pine, but it might have been some other name. I do not know which company, the Palestine-Beaumont Oil Company or the Spindletop Power Company—had air connections with Mr. Treadwell's wells there but I am pretty sure it was one of them. The Palestine-Beaumont Company put in some machinery there some little time before we got our Spindletop Power Company operating and we equipped quite a number of wells

on that plant. I know that it was one or the other of these companies that had made the air connection with Mr. Treadwell's wells. Mr. Griffin was in charge [2909] of the Palestine-Beaumont Company as manager there on the hills in its early stages and I think he was connected with us up to the time that we organized the Spindletop Power Company. That is my impression now and when the Spindletop Power Company got in operation—and maybe a few months before, just a little while, we changed the management. We put another man in his place and he went to the Spindletop Power Company. Mr. Griffin had charge of connecting up the wells for either of these companies or both when he was in charge and he also had charge of the field operations for the Spindletop Power Company. Mr. Griffin was connected with the Palestine-Beaumont in its early days and he quit to go to the Spindletop Power Company a little while before we got to going but I could not tell you within a month or two of the time. At the time the air was used for the first time in order to make the well flow, the people in the oil business in the Spindletop believed generally that it would be successful and the oil men there generally asked for connections with our company. I think we equipped seventy five or one hundred wells. You see, this line, originally, was not to pump wells, but to agitate them and start them going and they would flow themselves after once agitated. That is the reason we could equip so many wells—after they ceased to flow, of course, we could not take on so many. If Mr. J. B. Tread-

well testified in this case and would say that he didn't know Mr. Griffin, of course, I would say that he made an error in his statement and when it is asked of me whether or not he was telling the truth when he said he didn't know Mr. Griffin, well, I would not want to put it that way, but then I know [**2910**] that Mr. Treadwell knew Mr. Griffin. If Mr. Griffin testified under oath that Mr. J. B. Treadwell solicited him to go out to California to drill some well I think I would believe Mr. Griffin's statement. If Mr. Treadwell solicited Mr. Griffin to go to California I would not necessarily know it. When I stated on direct examination that Mr. Treadwell did'nt solicit me so far as I can recollect, and that Mr. Griffin did'nt solicit me so far as I can recollect, to go to California under arrangements with Mr. Treadwell, I cannot state positively that Mr. Griffin did'nt talk with me about going to California; I don't remember if he did; of course, he might have done it. I have not the least idea of it. I don't think I ever heard Mr. Griffin called "Spindletop Griffin". It might have been used out there on the hill but not amongst the officers around town where I was.

Q It is in evidence here that Mr. Griffin had a business transaction with a man by the name of Armstrong, or his bank, in which Mr. Griffin is alleged to have given a trust deed of some property to secure the repayment of a loan of $1500. It has also been claimed, although not proven, that Mr. Griffin mortgaged property that did'nt belong to him. Now, I will ask you, Mr. Bass, whether you know, as a mat-

ter of fact, that Mr. Griffin did go into business for himself and drill some wells, or attempt to drill some wells, after the failure of the Spindletop Power Company?

A Yes sir; he went into business for himself. [2911]

I know where his property was located. I have been out there and have seen it. He had a drilling rig on it. He had some tanks there. I don't remember how big they were, also an earthern tank. I couldn't tell what the capacity of these tanks was. I should judge that they were tanks which would hold a thousand barrels. From my estimate of Mr. Griffin and my long familiarity with him in business I don't think he is the sort of man who would mortgage property that he did'nt own to secure the payment of a note of a thousand or fifteen hundred dollars. I don't think he is that sort of a man from my estimate of him as a business man. I was in business with him about three years and he shared the fortunes, both good and bad, of the Spindletop Power Company during its existence and went down with me in the final failure. During all that time when I had good days and bad days, I have never known of a single instance in which Mr. Griffin ever tried to deceive me. He has always treated me fair and square. In the summer of 1903 Mr. Griffin laid the pipe line for the Rio Bravo Oil Company and I think that during the years 1902 and '03 he had issued to him annual passes by the Southern Pacific Company. If Mr. Griffin had been out of the State of Texas for from five to

fifteen days I would have known something about it; I would know he was away. He might have been gone from five to fifteen days at any time during those two years; he was gone a few times. He was absent a few times during the time he was with us. Of course some of those times I knew exactly where he was and others [**2912**] I did'nt. I have talked with Mr. Treadwell about the California oil fields in a general way while Mr. Treadwell was in San Francisco. When I am asked from my estimate of Mr. Griffin's ability in a mechanical way and his general efficiency and utility in the oil drilling business, whether or not Mr. Treadwell could have picked out any better man to go to California, I would say: "Well, of course, as I said before, I considered Mr. Griffin a very efficient man. Of course, there are other people who are efficient so far as that goes. At that time I did'nt know them on Spindletop. I know of no other man around Spindletop whom Mr. Treadwell could have picked out who would have been more valuable to go out to California oil fields at that time than Thomas J. Griffin. If Mr. Griffin would make the statement to me that Mr. Treadwell asked him to go out there at that time I would believe him. I have absolutely no interest in this case one way or the other and I have been approached for interviews for both sides of this case. [**2913**]

REDIRECT EXAMINATION
OF M. B. BASS.

I do not remember Mr. Treadwell making a proposition to go to California.

Mr. Griffin's services with me in the Spindletop Power Company were practically continuous; he went away a few times, once or twice, to Cincinnati, but I have no recollection of Mr. Griffin having made a trip to California during any of that period.

Immediately after the Spindletop Power Company went into the hands of a receiver, Griffin went over to Batson and began his independent drilling. I went to Batson and saw him there drilling and operating on a piece of land. I did not know of him making any trip to California during the period when he was operating the well at Batson, but would not know if he was absent.

Mr. Griffin laid a pipeline in the summer of 1903 for the Rio Bravo Oil Company. He had not obtained a leave of absence from the Spindletop Power Company for that purpose but it was done right there on the field, and he was there every day as far as I know; I did not know of him making a trip to California during that time. But I haven't the least idea about it. His salary with the Spindletop Power Company continued during the time of this work for the Rio Bravo Oil Company. I don't remember whether or not he had any interest in that contract. I don't remember whether he did that work for the Spindletop Power Company or whether he did it on his own account.

You show me a document, Defendants' Exhibit No. 187, being a bill to J. S. Wynn, dated Sour Lake, January 7, 31 1904, and signed at the bottom. The signature at the bottom looks like Mr. Griffin's handwrit-

ing; the "Griffin" part looks like it; it is sort of blurred there—the "O.K."; the "T.J." is blurred with the "O.K." The handwriting following, showing the date, looks like Mr. Griffin's handwriting. [2914]

I think Mr. Griffin had a railroad pass in 1903; I myself had a pass for the year 1903.

The letter marked Defendants' Exhibit No. 188 which you now show me is signed by me, and the pass attached to the letter is the pass that I held during the year 1903, of the Sunset Route, between all stations, on account of oil contract.

(Said letter introduced in evidence, marked Defendants' Exhibit 188, and is as follows:)

"SPINDLE TOP POWER COMPANY, Incorporated, Capital Stock, $100,000 AIR AND STEAM POWER.

Officers. P. O. Box 382
M. B. Bass, President
T. J. Griffin, V-Prest.& Gen'l Mgr.
B. R. Norvell, Treasurer.
Geo. A. Hill, Secretary.
M. J. Bass, Asst. Treasurer.

Directors.
M. B. Bass T. J. Griffin
Geo. A. Hill, B. R. Norvell
M. J. Bass

Offices: Beaumont, Sour Lake.

Beaumont, Texas, Dec. 30th, 1903.

C. H. Markham, Prest.,
Rio Bravo Oil Co.,
Houston, Texas.

Dear Sir:

I shall not ask to have my pass renewed for the moment, and I am desirous that you do not renew the passes of T. J. Griffin, Vice President and Geo. A. Hill, Sec'y of this company for good and sufficient reasons, of which I will inform you when I am in Houston again.

Yours truly, M.B.Bass."

(Pass attached:)

"1903 SUNSET ROUTE GOOD OVER ROADS NAMED ON BACK

Pass Mr. M.B.Bass SUBJECT TO CONDITIONS ON BACK

BETWEEN All Stations Account xx Oil contract xxxxx Until Dec. 31st, 1903 UNLESS OTHERWISE ORDERED. [2915]

No. T5235 W. G. Van Vleck, Manager."

(On back) THIS TICKET IS GOOD BETWEEN POINTS NAMED ON FACE OVER THE FOLLOWING LINES:

GALVESTON, HARRISBURG & SAN ANTONIO R'Y
TEXAS & NEW ORLEANS R'Y
NEW YORK, TEXAS & MEXICAN R'Y
GULF, WESTERN TEXAS & PACIFIC R'Y
GALVESTON, HOUSTON & NORTHERN R'Y

"Is not Transferable, and the person receiving and using it assumes all risk of accident, and especially agrees that the above companies shall not be liable, under any circumstances, whether by negligence of their agents or otherwise, for any personal injury, or for any loss or injury to his property, and in using this ticket, he will not hold any of the above companies liable as common carriers.

Revocable at pleasure, and not good for passage unless signed in ink by person whose name appears on face. If presented by any other, conductor must take up and collect fare.

(SIGNED HERE) M. B. Bass."

One of the primary causes of the failure of the Spindletop Power Company was the litigation with the Texas Company. It added largely to it. After we failed to go around to the Texas Company we had an accident at the plant and were sued for twenty-five or thirty thousand dollars and although the case did not come to trial this suit accelerated the matter and there was a complication of troubles that brought on the receivership.

REDIRECT EXAMINATION
M. B. BASS

I have no remembrance of being consulted about any scheme to go to California and take up oil lands. I have no impression of it at all. I just don't remember it. I don't know whether my memory is a bad one in general; some people think it is. The [**2916**] relations between myself and Mr. Treadwell are perfect-

ly friendly and I have no reasons to do Mr. Treadwell any injury. If Mr. Griffin told me that in 1903 he had suggested the Treadwell conversation between himself and Mr. Treadwell, to me, and talked about going out to California and he would tell me something he had said to me and I had forgotten it I don't know how I would feel about it and as to believing it, well, in a manner I would say that he is honest in his statement; that he believed it at least.

RE-CROSS EXAMINATION OF M. B. BASS

I do not think it was due to any trouble with Mr. Griffin that I wrote the letter, Defendants' Exhibit No. 188; I stated to counsel for the defendants that when I knew of this letter I rummaged my head to find out what I really wanted, or what I intended to mean by the letter; but I can't recall now what I wanted to accomplish by that letter. There must have been something about the business I wanted to correct and I can't recall that I ever talked to Mr. Markham about it afterwards. It might have been due to the relations between Mr. Hill, the Secretary, and myself. When Mr. Hill came into the company we bought a large quantity of tankage, earthern tankage, from him after which we issued him a good big block of stock and it might have been there was something in regard to Mr. Hill in the premises that I didn't like or something like that. I don't remember, though, exactly. I can't conceive it now; I don't remember what it was for. I don't remember that there was

any difference between Mr. Griffin and Mr. Hill so far as that goes, but Mr. Hill once or twice tried to dominate the affairs of the company in some way and I didn't know but that it might be him and the reason I asked them to refuse the request of the issuance of a pass to Mr. Griffin would be that I might have wanted to explain the situation to Mr. Markham and let him go over it. Of course at this late day it is largely guess-work and I can't remember exactly what I intended when I wrote that letter. [**2917**]

F. I. NEVILL, a witness called and sworn on behalf of the defendants, testified as follows:

DIRECT EXAMINATION

I live at Houston Heights, Texas, and have lived in Texas for about thirteen or fourteen years. From the 14th day of May, 1910, until the 21st day of June, 1913, I was engaged in drilling oil wells and producing oil in California, in the Midway district, around Taft, Maricopa and Fellows. I first engaged in the oil business in Texas about the year 1900. I operated in the Spindletop field in 1901 and 1902, and at Sour Lake, Batson, Humble and Markham, and was at that time acquainted with Thomas J. Griffin, and also knew Mr. Bass.

The first time that I met Griffin was the time the Palestine & Beaumont well got away from them, I think in 1902. I had business relations with the Spindletop Power Company in the fall of 1903, and Griffin was in the company at that time. I am familiar with Mr. Griffin's signature. I drew a check payable to

Thomas Griffin on the First National Bank of Sour Lake and delivered it to him on the 28th day of August, 1903, at Sour Lake.

(Said check introduced in evidence, marked Defendants' Exhibit No. 189, and is dated as follows:)

"Sour Lake, Texas, 8 - 28 1903"

(Endorsed) "Paid Aug. 28, 1903, T. J. Griffin."

I had seen Griffin immediately prior to the 28th of August when this check was given him.

The check which you now show me, marked Defendants' [**2918**] Exhibit No. 190, dated, "Sour Lake, Texas, 11-9, 1903" and signed F. I. Nevill, and endorsed, "Paid Nov. 9, 1903, T.J.Griffin A.H. Liff," I gave to Mr. Griffin while I was drilling wells at Sour Lake on the Rogers' property, for the J. M. Guffey Petroleum Company; I gave it personally to him, and delivered it on its date.

About the first of November, 1903, I opened negotiations with Mr. Griffin for the purchase of some property, and those negotiations continued from the first to the tenth of November. The deal was with the Spindletop Power Company, through Mr. Griffin. He agreed to complete a well on the property on a contract basis and went to work on it and continued to work on it until about Christmas 1903. While working on the well, Griffin was around the job off and on, sometimes once a day, sometimes twice, and was very much interested in the property and gave it very close attention. He completed the work on the well about Christmas, 1903.

The paper now shown me, consisting of two type-

written pages, is a notice that I received about the 14th of February, 1904, notifying me of the appointment of a receiver for the Spindletop Power Company. It is dated at Beaumont, Sour Lake, Beaumont, Texas, February 13th, 1904, and addressed to me, and is signed "S. N. Pickens, Receiver."

(Said document introduced in evidence, and marked Defendants' Exhibit No. 191.)

After receiving this letter I saw Mr. Griffin at Sour Lake, Beaumont and different places; he was around Sour Lake and made several trips over to Batson; from the time when the work was completed at Christmas up to the time when I received this written notice of the receivership, Mr. Griffin was around Sour Lake, Batson, and the community generally, and I saw him on and off all the time, sometimes as often as three times a day.

I signed a complaint in intervention dated the 27th day of January, 1905, now shown me, and entitled Beaumont National Bank [**2919**] versus Spindletop Power Company, setting out that the defendant executed and delivered to intervenor its two promissory notes, dated February 2nd, 1904, each for the sum of $700.

(The original of said complaint introduced in evidence, and marked Defendants' Exhibit No. 192.)

After the giving of the notice referred to in the complaint in intervention on February 2, 1904, up to the time when I received the notice of receivership, I saw Griffin at Sour Lake, Beaumont and Batson frequently, sometimes every day; I kept right after

him, because I was in hopes that he was going to be successful in liquidating his company; Mr. Griffin was making every possible effort that he could, and I believe Mr. Bass too, was doing everything that they could to raise the money with which to liquidate the Spindletop Power Company and have the Receiver discharged and Mr. Griffin kept me posted, I think, pretty thoroughly, as to the progress he was making in the matter. He did not hesitate to discuss his business matters with me very thoroughly. He acknowledged the obligation to me and was always frank in answering any questions and in explaining the situation. I continued to see him probably for a month or six weeks after the appointment of the receiver; during the period of the negotiations Griffin was at Batson.

From the time of the contract of November 10, 1903, until the date of the receivership, February 13th, 1904, Griffin made no trip to California, to my knowledge; he could have done so, but not very well; it was possible, but not probable. I do not think he was gone as much as ten or twelve days at a time, and I never heard from any other source of his making a trip to California; I did not know of his making a trip to California during the time when I saw him subsequent to the receivership.

I was acquainted with the general reputation of Griffin at that time for truth and veracity, in that community. Oil men always [2920] discussed each other among themselves, and all the business men, as to a man's credit, and his truth and veracity, or to

what extent his statements would be credited and his promises be met; all those things were frequently discussed in the fraternity. During all the time that I knew Griffin. Of course, Mr. Griffin like all the rest of us, had his enemies — men that spoke disparagingly of him. Lots of men spoke very disparagingly of Mr. Griffin, in fact, almost universally men spoke disparagingly of him, and in my own dealings with Mr. Griffin my relations with him were very unsatisfactory. When you ask as to his general reputation, well, I guess you would call it bad. He was a fellow that was known to exaggerate his statements, and such as that.

CROSS-EXAMINATION OF F. I. NEVILL

I first entered into the employ of the Southern Pacific Company on the 22nd day of March, 1913. My compensation was to be a per diem agreement and expense account. That agreement is in writing but I don't think I have it with me. The agreement was that I was to make a trip to Texas at my earliest convenience and procure such documentary evidence as I had in connection with the suit that I had against the Spindletop Power Company and all other papers, etc., that is, everywhere I could find any papers. I wrote them that I had these papers in my safety deposit vault, but I only had a part of them. I agreed with the Southern Pacific Company, defendant, for a per diem arrangement and expense account, to come here and get those papers for their use in this case and

hunt for any other evidence that might be found which would possibly [2921] tend to show Mr. Griffin hadn't taken a trip to California. That was my employment or something to that effect. My per diem was to be five dollars a day. There was nothing said about expenses. My expenses consisted of hotel and living expenses and I traveled on a pass on that occasion. It was a special trip pass from Los Angeles to Houston and return. I have used a pass since that occasion. I used the first pass I got about the 26th day of March. My original deal with Mr. Lewers was made probably two or three weeks before that and I told him that I didn't know that I was going to be able to make the trip to Texas at all or not; that I was busy in California but the first time I could spare the time I would make this trip. The first time I used this pass was on the 26th of March of this year and on that occasion I went to Texas and returned. I remained in Houston until the first of May, sometime during the first of May. I made some side trips from Houston and went to Beaumont and Saratoga and Galveston. I went to Beaumont, I think, on the 23rd of April and I visited a good many different people. I visited people that I used to live with there, the Ellis family. That was a social visit. The people that I visited in a purely business way was the Oil Well Supply Company. They have stores all over the world and they have one in Beaumont. I talked with Mr. J. B. Lemmex there. I saw their records. I asked to see the records of the Oil Well Supply Company. I wanted to see whether the account of the

Spindletop Power Company was alive or not as that was in pursuance of my general plan and instructions to ascertain whether Mr. Griffin had any [**2922**] business with that company during those periods. I did not find any damning evidence against Mr. Griffin. I found nothing at all. Then I went to the National Supply Company at Beaumont. I talked with Mr. Byrne there who was the general manager. I was still in pursuit of the account of the Spindletop Power Company as that was part of my general plan and instructions from Mr. Lewers. I was looking to find whether or not the account of the Spindletop Power Company was alive and active during the fall of 1903 and the spring of 1904; to find whether or not Mr. Griffin had signed any papers, or documents or bills. I found nothing to damn Mr. Griffin there but I found that his credit was not good there. It had been good there as they had furnished goods to the Spindletop Power Company on previous occasions. I understand that the Spindletop Power Company had no credit after they failed but they did have credit up to a certain time before they failed. I next visited the E. L. Wilson Hardware Company in Beaumont still trying to find if they had an active account with that company. I did not find anything there that would satisfy Mr. Lewers in searching after evidence against Mr. Griffin. I just left word there that I wanted a copy of the account and I did'nt hear from them any more afterwards. I next went to the County Court House. I found papers there that showed where Mr. Griffin was. I think those are the papers which

I introduced here. I found all the papers in the case of the Beaumont National Bank against the Spindletop Power Company. The Beaumont National Bank threw the Spindletop [**2923**] Power Company into the hands of a receiver. I collected data there. I next went to see Judge J. S. Whelos, who acted as master in chancery in the case of the Beaumont National Bank against the Spindletop Power Company and I got data from him. I next visited the attorneys that represented the receiver in the case. These attorneys were Smith, Crawford & Sonefield of Beaumont. I believe I talked with Mr. Crawford but he did'nt give me any papers and did not give me any information as to the movements of Mr. Griffin. I think that is all I did there in Beaumont. I think I spent a week there. I then went to Houston. I think I called on the Pierce, Fordyce Oil Company. I did not find any papers there that damned Mr. Griffin as that was the wrong place. The next day I went to Galveston and there I visited several of the old boys that I knew at the old field. The first fellow was a man by the name of Harrington. I never mentioned this case or Mr. Griffin to him. I was with him probably five minutes. I next met Slim Johnston and had a conversation with him but I did'nt talk to him about the movements of Mr. Griffin. I was with him probably ten minutes. I next went to the depot to go back to Houston and then I went home. I lived at Houston Heights. I never lived in California. I was just out there temporarily. I was in California three years drilling and producing oil. My family was not with me in

California. I lived at the Buena Vista Hotel at Taft. I was also at Fellows. Mr. Lewers of the Southern Pacific found me at Los Angeles. I met him by appointment at the [2924] Alexandria Hotel. Mr. Gray made the arrangements. Mr. Gray was present at that interview. Mr. Gray did not offer me inducements to take employment as a detective for the Southern Pacific Company at that time. He just took me over to meet Mr. Lewers. He said he wanted to see me in connection with this case. At that time I was working on a well at Fullerton and I was receiving ten dollars a day and a bonus of several hundred dollars for certain results and the reason I left this lucrative employment was I had to wait for material to come from the East and my pay did'nt go on while I was waiting and so while I was waiting I notified Mr. Lewers that I had not been home for ten months and I would make the trip for him. I remained at Houston Heights about one week. I visited nobody there on official business connected with the Spindletop Power Company and my relations with the Southern Pacific Company, my pay, was going on all the time at five dollars a day. My last payment was about a month ago. I was paid by a check which included my expenses and per diem. My last check was about one hundred dollars and included some expenses. I have had three or four checks altogether from the Southern Pacific Company, all of them less than one hundred dollars. I just charged them for the time I put in. I supposed I was to come and testify and tell what I knew within the terms of

my contract. The last time I went to Texas I went on my own business and traveled on a pass on that occasion. The pass took me to Houston and was issued to me by the railroad company. It came to me by mail from the San Francisco office. I got it in [**2925**] Los Angeles. I was to do certain things for them when I got to Houston but when I got there I did'nt have the time. My own business consumed all my time. I have not yet returned to California. Since I have been here I have visited Mr. Lewers and discussed the case with him in his room. I was there once last night, that is the only time. When I went to Sour Lake I had probably a couple of thousand dollars. I never gauged any oil at Sour Lake or Spindletop. I went to Sour Lake about the first of June, 1903. I was in Houston on April 16th, 1913. I met Mr. Griffin at that time in company with Mr. Flocker and at that time Mr. Griffin charged me with stealing oil from him while I was gauging. He said to me, "supposing you had the money representing the oil you stole on Spindletop, you would have lots of money now". I remember his saying that to me but I never answered, "Yes, I got my part of it". He never said to me, "You never stole less than fifty to a hundred thousand barrels from me on Spindletop", and I did not reply, "I did'nt get it in person, but I don't say what my gaugers did." I deny that I had ever stolen oil while I was a gauger. I called Griffin's attention to the fact that I never gauged any of his oil and I did deny that I had stolen thousands of barrels of oil from other people. I never stole from Mr. Griffin

and Mr. Bass, either personally or by others, as much as 50,000 barrels of oil during the time I was gauging there. I never stole any oil from either of these men or from the Spindletop Power Company. I had some trouble with my partner, Mr. Armstrong when I was there. We got into a controversy over loss by fire in Batson. We both sued each other. We both [**2926**] got judgment against each other. We settled the matter. I had a little trouble with my partner, H. H. Cherry. We had a misunderstanding but never went to court about it. I testified that I saw Mr. Griffin frequently subsequent to February 14, 1904. I don't know where I saw him on February 15th or 17th or 16th. I don't know as I saw him on those particular days. I think I saw him both at Sour Lake and Batson but I will not try to say the date. I would not swear positively that I saw him on the 18th of February at Sour Lake or Batson, or on the 19th of February, or on the 20th day of February, or the 21st, or 22nd, or 23rd, or 24th, or the 25th. I saw Mr. Griffin several times and I believe I saw him at Beaumont after that because I know I was very anxious in communicating with him as to what the outcome might be of the receivership case. I am almost sure that I saw him at Beaumont two or three days subsequent to the appointment of a receiver. I can't give you the positive time and date but I know I was in communication with him constantly after the appointment of a receiver. I do not know whether Mr. Griffin was gone from Texas into the State of Ohio for a period of from twelve to fifteen days. I don't think he could

have gone and I not know it, that is, within the next fifteen days succeeding the appointment of the receiver. He might have been gone sometime during the years 1903 and '04. I did not make it my business to follow around and see where Griffin was during the years 1903 and '04. I had other things to do. I had other business besides business with the Spindletop Power Company. I cannot swear as to any specific date when [**2927**] I saw Mr. Griffin at any place in Texas in 1903 or '04 except the occasion when I gave him the check. I know I was with him in 1903 for nearly every day from the first of November until the 10th and I was with him on the 19th. We were negotiating this deal for this exchange and I saw him most every day. I am not positive, however; I know I saw him on the 10th of November and on the 11th and I saw him on Christmas and on the 24th of December, 1903. I can't fix the exact dates on which I saw him between the 10th of November and the 25th of December. I can only fix those dates which are fixed by some particular circumstance. I saw him on the 11th of November, the day he took possession of the property, and on the 24th day of December, the day the pipe-pulling arrangement was made. I know where Mr. Griffin was some of the time during the spring of 1904 but I cannot give any precise dates and places except on occasions that I had business with him. I saw him on the first and second of February, 1904. I call February the spring of 1904. February is generally called the spring in Texas. I next saw him about the 13th of February at Beaumont. I cannot

positively fix any other dates. During the months of June, July and August of 1904 I was most of the time at Batson. I did not see Mr. Griffin there. He was not around there that I recollect. I was very busy with my own work; he may have been there but I don't recollect seeing him at that time. I followed him for awhile after the receivership while he was trying to raise the money to liquidate his company and when I despaired of his being able to raise it I didn't pay any more attention to him. As to my [2928] reputation for truth and veracity at Sour Lake and Spindletop, I expect, like everybody else, I have my enemies that speak disparagingly of me and my friends speak otherwise. A man generally judges of his reputation by the credit he has; if his credit is good he has a good reputation. If he loses his reputation his credit becomes bad. A man can't lose his credit if he keeps up his reputation. The Spindletop Power Company didn't have any credit after it went into the hands of a receiver, only through the receiver. I have not a general reputation in the Spindletop field among those who know me, as of stealing oil as a gauger. If a man's partner speaks well of him I think that is a pretty fair test. If a man has business dealings with you that is a better test than what other people say.

RE-DIRECT EXAMINATION.

I had unlimited credit in Sour Lake and Beaumont. Mr. Griffin was in Sour Lake on August 28, 1903, according to this Exhibit 189. I saw him on

that date and gave him that check myself. I don't recollect any special occasion that I saw him after that until we opened negotiations on the first of November, 1903, for the sale of this property. The negotiations between Mr. Griffin and myself, were before the giving of these notes on the 2nd of February, 1904, I was after him hard all the time for my money and I kept in constant communication with him at Sour Lake and Beaumont. He was not absent at any time between the completion of the well and the 2nd of February, 1904, to my knowledge. I [**2929**] don't think he was for any length of time because I was right behind him all the time punching him up for my money.

E. A. STERLING, a witness called and sworn on behalf of the defendants, testified as follows:

DIRECT EXAMINATION

I am fifty-seven years old, and live in Houston, and have lived there off and on for fifteen years; I went to Beaumont in 1901 and remained there until 1905; I am engaged in buying and selling oil, and operate quite extensively; at the present time I have oil lands at Saratoga, and in Oklahoma, and in different parts of the State. At the time I lived at Beaumont and Spindletop I was acquainted with Thomas J. Griffin, and knew him all the time he was there; I knew of his general reputation in the community for truth and veracity; it was not good. I have had no difficulties of any kind with Mr. Griffin, and have no feelings in this matter at all.

CROSS EXAMINATION OF E. A. STERLING

Before I went to Bakersfield in 1901 I lived at Temple, Texas, and was a railroad agent for the Santa Fe. I was there ten or twelve years I guess, altogether. I left there and went back — shifting around. Before I went to Temple, Texas, I was in Belton, Morgan, Crawford; different points. When I was at Belton I was in the railroad business with the Santa Fe Railroad. Before that I was an operator in the Western Union here. The Morgan line is a line of steamboats. I was a cashier and operator at Clinton, on the bayou. Before that I was a telegraph operator in Houston. I remember the Buffalo Oil Company for which I was a sales-agent, employed Mr. Griffin and he blew some wells for them but I don't know how many. That was strictly a field proposition. I believe that Mr. Griffin blew a well over there while I was sales agent [**2930**] of the Buffalo Company. I don't think their plant could handle it and he coupled on to them and when you ask me if, as a matter of fact, if I did not get Mr. Griffin to flow an oil well for that company over there which was really a mud hole and which I was trying to unload on another party as an oil well, my answer is, "No sir, I had nothing to do with the bunco side of that business", and when you ask me if Mr. Griffin had communicated to the party I was trying to sell the well to, the fact that it was a [**2931**] mud hole and the party didn't take the well, didn't I get extremely angry

with Mr. Griffin, my answer is, "No, sir." That was not the beginning of my trouble with Mr. Griffin. I never had any trouble with Mr. Griffin. Mr. Griffin did not refuse to have any business dealings with me after that time in the field. He never had any chance to do any business with me. Mr. Griffin did not require me to have my business go through the office. I never had any talk with M. B. Bass about the transaction I referred to in regard to the well. I know the Moore & Skinner syndicate. They were in the business, principally, of selling stock. I did not at one time attempt to take some cars of theirs loaded with oil, get the bills of lading and reissue them in order to defraud the company of the oil, and sell it myself. I never had any trouble with Jim E. Moore of the Moore-Skinner syndicate, at all. I did not make such an attempt and sale nor did I attempt to re-route some cars loaded with oil under the guise of its being my own oil. You understand, in my capacity I had nothing to do with field work. The bills of lading came into the office. I did not attempt to take oil that didn't belong to me from the Moore-Skinner syndicate. I didn't have anything to do until the bill of lading reached my desk. I had an adopted daughter who married a street car conductor. She had some domestic troubles with her husband in which she left and I would not let her come back to my family. I don't know whether she went to live with Mrs. Griffin. I don't know who she went to. Mr. Griffin's wife did not, out of sympathy, [**2932**] take the girl in and Mr. Griffin did not go over and accuse me of being very

hard-hearted to the child. He never opened his mouth to me about it. The girl went bad on her own account while she was living with this conductor and because of that I certainly did refuse to take her back to my house. She afterwards went to live in a house of prostitution. She "turned out" of her own accord. It was not due to lack of humane feelings towards my adopted daughter, not on your life. It was born in her. It was not because Mr. Griffin and his family befriended this child and his accusing me of lack of humane feelings in respect to that—the real cause why I am here to day. Not on your life. This is the first time I ever heard that Mr. Griffin ever had anything to do with it. I never heard that Mrs. Griffin took that child in and befriended her. She married and left my roof; I had raised her; that was her own doing and I certainly refused to have her come back to the house. We took her away from her—my wife's folks turned her over to us, and we raised her from her mother, who was a prostitute. Mr. Griffin did not tell me that my treatment was inhumane. He never opened his mouth to me about it. He did not tell me that I ought to take this girl back and try to redeem her. Mr. Griffin never mentioned that girl to me in his life, nor did his wife. [**2933**]

I never had any trouble with Mr. Griffin.

RE-DIRECT EXAMINATION OF E. A. STERLING

I never had a pass on the Southern Pacific; I have

a pass on the Santa Fe, and that is the only one I ever carried. [2934]

A. C. DENNEE, a witness called and sworn on behalf of the defendants, testified as follows:

DIRECT EXAMINATION.

I am a traveling man, and reside in New Orleans; about the middle of November, 1901, I was in the employ of the Sunset lines in Texas and then went over to the H. & T. C., which is a subsidiary line of the Southern Pacific, and remained in their employ until 1907 or 1908. During 1904 I acted in the capacity of clerk of W. G. Van Vleck, and was then second vice president and manager of the G. H. & S. A. Railroad and the T. & N. O. Railroad, — what is known as the Sunset route.

As clerk I handled the annual pass records. By that I mean that all of the requests that were sent in for annual passes from foreign lines or company officials, after they had been o.k'd by the proper officials, were passed up to me and I issued the passes. I kept a record of the passes issued by other people, and these were reported to my office by letter, that is, in most cases. I would not undertake to swear that all passes, that is, blank passes that were turned out to other officials of the company were turned in to me for report. Of course all of those issued by me, I presume, were of record. My office issued blank passes only to the Vice President's office on request, that is, they may have sent in a letter and asked for fifty or a hundred

passes. They were sent in blank. As to the serial numbers, I merely kept a record of the serial number as the passes were issued by the vice-president's office and when those returns came in I entered them in the register, so the records of passes issued would be absolutely complete, that is, so far as I know.

The book which you show me is the indexes to the annual passes issued by the Texas line, the Sunset Route, during the year 1904, and all the entries are in my handwriting; some of the passes were divided into classes, which were called foreign [**2935**] exchange passes. The foreign exchange passes represented cards printed to interchange with other lines of railroad; also at that time miscellaneous, issued "complimentary" to so-and-so. This record also represents passes issued to employees of the company; I have made an examination of the record of miscellaneous passes in that book; they are arranged alphabetically; I find there a pass issued to Thomas J. Griffin account of the Rio Bravo Oil Company on page 245, under the letter "G", and the pass shows that it was bulletined; I can determine what the original number of the pass entry was, and have looked at it with a glass; it states that the number represented there is 3850, and the entry is in my handwriting, made at the time the pass was issued during the year 1904; I have also examined the record of miscellaneous passes to determine whether or not the name of T. J. Griffin appears in relation to this, but failed to find any entry although I went over it very slowly, sheet by sheet.

Reading the entire record, as appearing on page 245, referring to the pass issued to T. J .Griffin, the number of the pass is T-3858, under the "date sent", my entry shows Mr. Fay's letter June 9th, 1904—6/9/04; Name, T. J. Griffin, G-r-i-f-f-i-n; Account, Rio Bravo Oil Company; Expires, December 31, 1904—12/31/04; Good between, all stations; Requested by, T. F. The "T. F." was placed there because the letter requested the pass and was signed by Mr. Fay. On the line of the entry something is written in red ink; I made the entry, and it reads, Bulletined, November 10th, 1904—11/10/04. The expression "Bulletined" means, in my understanding, that the pass was outlawed, and in case it was presented for transportation it should be taken up by the conductor; When we bulletined a pass, that is, when I was in the employ of the company, it is my understanding that we wrote to all superintendents—in fact I wrote the letter myself on the machine—bulletining the pass; the same procedure goes through in the case [**2936**] of other passes. I identify the signature of a letter addressed to Mr. Fay, General Manager, Houston, Texas, as being the signature of W. L. Lane, Mr. Van Vleck's chief clerk, and am familiar with his handwriting.

On the letter now shown me attached to the same file, I have seen the signature before,—E. T. Dumble; my attention being called to two carbons attached between two letters or papers, and upon my attention being called to the initials appearing on those letters, so far as the initials "G.R." would stand for any per-

son,—the point that I wish to make is that "G.R." is Gaspar Rodeski", at that time Mr. Fay's chief clerk. Mr. Fay was vice president and general manager of the Sunset lines, and he became general manager along about April, 1903.

(Said letters introduced in evidence, and marked Defendants' Exhibits 193.) Said letters are as follows:

"Form 101

THE GALVESTON, HARRISBURG & SAN ANTONIO RAILWAY CO.
SOUTHERN PACIFIC
SUNSET ROUTE

HOUSTON, TEXAS, November 10th, 1904.
(In blue pencil: 967)

W. G. Van Vleck,
Second Vice-President
and Manager.

Mr. T. Fay,
General Manager,
Houston, Texas.

Dear Sir:

Replying to your letter of November 9th, file No. 967, beg to advise you that necessary instructions have been issued regarding Sunset Route annual pass No. T.3858, issued to T. J. Griffin. Yours truly, W. G. Van Vleck. M. [2937]

Houston, Texas, November 9, 1904.

Transportation T. J. Griffin. (Stamped: In your reply please refer to our file No. 967)

Mr. E. B. Cushing,
Gen. Supt., New Orleans.

Dear Sir:—

Mr. T. J. Griffin is no longer in the employ of the Rio Bravo Oil Company. He has failed to turn in his annual, No. 1604, good over Louisiana lines. Please bulletin and have taken up if presented for passage. Yours truly,
GR:

"Houston, Texas, November 9th, 1904.

Stamped: In your reply, please refer to our File No. 967.)

Transportation T. J. Griffin,

Mr. W. G. Van Vlerk,
Manager, Building.

Dear Sir:

Mr. T. J. Griffin is no longer in the employ of the Rio Bravo Oil Company. He has failed to turn in his annual, T 3858, good over lines in Texas. Please bulletin and have taken up if presented for passage. Yours truly,
GR:

Form 1.

THORNWELL FAY, PRESIDENT.
E. T. Dumble, Vice President
C. B. SEGER, Secretary
B. C. Cushman, Treasurer.

RIO BRAVO OIL COMPANY, (In ink:967)
General Office
HOUSTON, TEXAS.

Houston, Texas, Nov. 8th, 1904. [2938]

Transportation:

Mr. T. Fay,
President, City.

Dear Sir:—

Mr. T. J. Griffin, who holds transportation over our lines in Louisiana and Texas, is no longer in the employ of the Company. He has failed to turn in his transportation and I would suggest that it be taken up when presented. No. T-3835 Lines in Texas. 1604 Over Louisiana Lines.

Yours truly, E. T. Dumble."

I have gone over the miscellaneous portions of the pass record, and went through the exchange portion with relation to the pass 3500, and looked through for a pass for Mr. Griffin, but I failed to find the name T. J. Griffin in the Southern Pacific Exchange book. This book does not contain all of the trip passes that were issued. It does not contain any of the trip passes. It may contain in the book the numbers of some of the trip passes sent out but I don't know whether it does or not. There may be hundreds

of those trip passes issued in that year that would not be in this book at all. Examining this entry which constitutes the offer of defendants' counsel on page 245 of the index of passes, upon which I have used a magnifying glass, it appears that the number 3858 has been superimposed over a number different and other than that. It also appears where the name "Mr. Fay's letter" occurs in the entry, under "date sent", that there evidently was a date under that and it does appear under that particular writing that there was some other writing and then, under the "date 6/9/04", in the same column it appears some [2939] writing has been eradicated and another writing has been superimposed. It also appears under the name "T. J. Griffin" that there has been some other writing eradicated and the name of "T. J. Griffin" superimposed. I have no record or any means of stating and I know nothing of it, whether or not any trip pass was issued to Mr. T. J. Griffin on a trip to California with Mr. E. T. Dumble at any time during the year 1903 or 1904 and from the records to which my attention has been directed, I don't know whether or not such a pass was ever issued to Mr. Griffin and it is possible that it might have issued and I not know it. I don't recall any annual pass being issued to T. J. Griffin prior to June 9, 1904. I am unable to find any record of any. If it was issued in Mr. Van Vleck's office I certainly would have a record. Of course if it was issued by anybody else naturally the record would go to Mr. Van Vleck's office if it was an annual pass. That was the general man-

ner of handling those passes. If any came to our office prior to that date I didn't see it. I kept a first class account of every annual pass that was ever issued by me or reported to me.

The record shows that the passes in which the serial number 3858 occurred were sent to Mr. Markham's office, and reads:

"Mr. Markham's office. Serial numbers 3800. Sunset Route, annual passes, numbers T-3800 to 3899, inclusive, to Mr. C. H. Markham, for his use, January 6, 1904. No. 3858 comes in that series.

I have examined Form 110 referring to employees, and there is no record of any pass being issued to T. J. Griffin in the year 1904 in that record.

On December 16, 1903, we sent a hundred blank Sunset route annual passes, numbered T-2100 to T-2199, inclusive, to C. H. Markham for use of Mr. J. Kruttschnitt. Those were 1904 annual passes. On December 18th, 1903, we sent to C. H. Markham [**2940**] fifty blank passes, numbered T-2047 to T-2096 inclusive, for his use and on January 6, 1904, we sent to C .H. Markham one hundred blank annual passes numbered T-3800 to T-3899 inclusive, for his use and on January 17, 1904, we sent to C. H. Markham fifty blank annual passes, numbered T-4000-to T 4049 inclusive, for the use of Alex Miller, who, I understand, was the Secretary or Assistant Secretary of the Southern Pacific or Sunset Route. Mr. Markham did sent us reports from time to time showing the passes he had issued. He would also send us the reports from time to time showing the passes Mr. Kruttsch-

nitt issued, in other words, issued from the New York office. Of course, what those passes are I am not in a position to state now because I have forgotten. The reports made to the Railroad Commission were made by me and the records of the reports were obtained from the record here. At the end of each month all the reports to the Railroad Commission were taken right from the originals.

CROSS-EXAMINATION
of
A. C. DENNEE.

I did not testify that no annual pass was issued to Mr. Griffin for the year 1903, but I said it was 1904; I have no record of any being issued and have not brought in the record of 1903 at all. As to these passes which have been issued and as to which I had no advice, I am unable to state whether they were outstanding at the time or not.

I couldn't say if all the blank passes we sent out have come back and been listed in this book. Some of them have and some of them may not and when we send out blank passes, fifty to a hundred at a time to the account of Mr. Markham or Mr. Kruttschnitt or some other official we have only the record which we have been advised were issued and as to those passes which may [**2941**] have been issued and as to which no advice was sent us I am unable to state whether they were outstanding at that time. I don't know whether there is any record of whether they were issued or not. In other words, I mean to say that

on a certain day in 1904 there were passes issued, we will say, from 3800 to 3899 to C. H. Markham for his use and I don't know and am unable to state on my oath whether any or all of those passes have been issued and are on this record and that is true as to every blank pass sent out. The blank passes were handled in the following manner: Mr. Markham wrote to Mr. Van Vleck, "Send me a hundred passes", or sent his chief clerk in there, and I would be instructed by Mr. Lane, or Mr. Van Vleck, or whoever was in authority, to give them a hundred passes, and Mr. Markham, or whoever the passes were sent to, was supposed to advise us when the passes were issued. It is my understanding that we were supposed to get a report on every pass that was issued by Mr. Markham, or anybody else.

I was merely acting in the capacity of clerk. I was not a man in authority or anything of that kind and I had to do as I was told. There appears upon this page that you call my attention to for the year 1904, three hundred blank annual passes issued for the use of C. H. Markham and Mr. J. Kruttschnitt and the only ones that I can see that were issued were those we find the record on. Whether there have been any of those serial numbers issued without a report made I am unable to say. I am unable to say that such a thing is possible, that some annual passes may have been issued by those persons to whom they were sent in blank and I may have no record whatever of them. I am unable to specifically state that a pass

was not issued to Mr. Griffin by one of those gentlemen to whom blank passes were issued.

REDIRECT EXAMINATION
of
A. C. DENNEE.

When the blank pass was sent out, we would merely keep [2942] a record of it at that time. When Mr. Markham, or whoever the passes were issued to,—when we got our instructions from Mr. Markham, we would naturally get a report on the passes from him. As he gave us the reports we entered them in the register, the same way after Mr. Fay became Vice-President—June 9th, or whatever it was, if they issued the passes and failed to report them, I would not get any record, that is, I never learned of any instance in which that was done. They usually reported very promptly on the passes issued; if they issued any passes and did not report them, they being superior officers, I was not in a position to raise any complaint, but I knew of no instance when they issued passes that they did not report. [2943]

DAN M. JACKSON

Called in behalf of Plaintiff in Rebuttal of Defendants' evidence for impeachment of Thomas J. Griffin.

Houston, Texas, August 1, 1913.

Direct Examination.

I was born at West Falls, Texas. I am judge of the Thirty-fourth Judicial District, in Texas, comprising the counties of El Paso and Culberson. It is

a court of general jurisdiction in criminal matters, and tries all felony cases; and in civil matters, all matters where the matter in controversy is over $500. I was elected judge of that district, and have held two appointive offices there. In 1906 I was appointed assistant city attorney of El Paso, to prosecute in the police court, and subsequently was appointed assistant district attorney under Judge Estes, in the district attorney's office there; I was elected city attorney of Marlin, Falls County, Texas, just after leaving the university, probably in 1899 or 1900. I was a claim agent of the Texas & New Orleans railroad, and Houston was my headquarters; I was connected with that company for about two years, in 1901 to 1903, or from 1902 to 1904, I cannot recollect.

I knew Thomas J. Griffin, and have known him all my life; I first became acquainted with him in Falls County, near Mooresville, Texas; I knew his sister very well, Mrs. W. D. Thomas, and boarded with the family in Marlin all the time I was there; Griffin went to Galveston along about 1900, probably in 1899; subsequently, while working for the Southern Pacific Railroad Company, I saw Griffin in Spindletop and Sour Lake; he was a man of some prominence in Spindletop; I was acquainted with his general reputation in the communities in which I knew him, for truth, veracity, honesty and integrity, and it was good; I was better acquainted with his reputation at Marlin than anywhere else, because I knew more about him, and saw him, and had better opportuni-[2944]ties to observe him there than in Beaumont;

at Beaumont and Sour Lake I would only see Mr. Griffin probably a few hours at a time; I was very much better acquainted with his reputation at Marlin or Falls County; if he had had a reputation other than that which was good I would have known it.

CROSS EXAMINATION OF DAN M. JACKSON

After I was admitted to the bar, I began practising law at Marlin, and remained there until 1901 or 1902; Mr. Griffin was not a client of mine at the time; he was living at Galveston, which is 250 miles from Marlin; the relationship between his family and myself was quite friendly, but I have not seen Thomas J. Griffin but once in nine years; I never lived at Beaumont,, or at Spindletop, or at Sour Lake, or Batson; I have not seen him since I left Houston, nine years ago; I left Houston either in 1903 or 1904, but cannot fix the date definitely; I cannot recall whether it was in the spring of 1904 or 1903 that I went to El Paso.

Prior to the time I left the service of the Texas & New Orleans to go to El Paso, I cannot recall how often I went to Beaumont or Spindletop, but was there very often, and had a great deal of litigation there; I was not at Sour Lake as often as at Spindletop; was at Sour Lake probably once or twice a month; as well as I recollect. I think I saw Griffin on all of the trips I made to Beaumont.

Griffin was a free talker, a rapid talker, and talked a great deal; I think he talked more than the average

man; he was what I would call a free talker, by which I mean that he was a rapid talker and talked a great deal.

During the time I knew Griffin at Beaumont, Spindletop, or Sour Lake, I did not know of his taking a trip to California; he never told me he took a trip to California. I know that he lives there; he told me so last April. I didn't know he lived there until last April. [2945]

REDIRECT EXAMINATION

The fact that Mr. Griffin was a free talker does not at all have any influence on my estimate of his credibility and his honesty and integrity, nor would it have any influence of any kind in the matter of my belief as to his word, nor does it, in my opinion, from what I know of him and his general reputation, in any way affect that general reputation for truth and veracity. I never had any business dealings with Mr. Griffin in my life.

J. R. PARKS, a witness called and sworn on behalf of the plaintiff, in rebuttal testified as follows:

DIRECT EXAMINATION

I reside at 3515 Main street, Houston, Texas, and at present in real estate and life insurance business at Houston, having lived there eight and one-half years; I am also engaged in the home building business; president of it and still own it, but not actively engaged in building at present. The business of the company is building homes; and am associated with

the Great Southern Life Insurance company as agency director and solicitor. My age is 51 years.

When the boom was on at Spindletop I went to Beaumont and organized a company, and went into the oil production business there: I know practically all the oil men in the various places, and know the Spindletop Power Company; I know that Thomas J. Griffin was the general manager of the company; he was one of the first men I met at Spindletop; I knew Griffin very well, and saw him every day; I do not remember having heard his character for veracity discussed pro and con at that time, whether it was good or bad; if he was a bad man I did not know it, as I never heard anyone say so; from my acquaintance, as far as I know, his reputation for truth and veracity was good in Spindletop, Sour Lake and Batson; I never heard anything to the contrary. It stands to reason, being sufficiently identified with my interests there and intimately [**2946**] acquainted with the business affairs of those communities to the extent that if his reputation had been bad, I would have known it.

CROSS-EXAMINATION OF J. R. PARKS

I have not seen Griffin this year at any time except within the last day or two, and when I met him yesterday I did not know him; he is not connected or in any way employed with any of the properties with which I am connected. I was speculating in oil lands.

After the wells ceased to produce in 1903, I went

to Sour Lake and took another whirl at the oil business, but was not successful; I then moved to Batson, where I insured Griffin's life, when he was operating at Sour Lake.

I met Mr. Griffin in 1901 at Beaumont and Spindletop, but was never associated with him in business; I was with him more or less three days out of a week, going to and from the fields, riding either in a hack or on the railroad, with him and others, not especially Griffin; I lived at Beaumont, and he lived there also, at the time; I was frequently with him at that time; up to the time Mr. Griffin left Texas, I was frequently with him, but was never quite intimate enough to collect a little bill that he owed me; he owed me some money on life insurance; he has not paid me yet, but I believe though today that he will pay me when he can; that has been a good many years ago and I don't remember whether or not I ever made a demand upon him for the payment; I expect I did; I collected the most of it. I hope to get the balance. I don't say that under those circumstances I would be very glad to do any favor to Mr. Griffin in order to get that money because it is insignificant; it don't amount to a great deal. He paid the most of it. The little amount he owed me would not change my opinion one way or the other on Mr. Griffin.

When I met Mr. Griffin the other day I said to him, "Don't you owe me a little balance on that last insurance?" He replied, "Maybe [2947] I do; it has been a good while since I saw you, and my mind is not clear

on it. Maybe I do." I said, "I am not altogether clear, but I think you do owe me a little balance", and he said he would pay it. He said nothing in that conversation about my testifying as to his character. The first to ask about my testifying as to Mr. Griffin's character was Mr. Flocker, the brown-eyed gentleman, and that was yesterday, and I think I saw Mr. Flocker afterwards.

I saw Mr. Griffin in the Chronicle Building yesterday, in the forenoon, and Mr. Flocker was there in the forenoon; Mr. Flocker was there first, and Griffin followed within an hour; I think that I told Mr. Flocker that Griffin owed me a small amount of money.

I never heard Griffin's reputation discussed excepting during the last few hours; I regard him as rather a windy fellow; he is a free talker; when I am asked if he was rather windy, I would say yes sir; I would put it that way - that is, entertainingly. I don't know that he would maliciously — I never heard him accused of making any exaggerated statements; but when Mr. Griffin had success, he blowed a good deal about it and he put up a pretty good front and I should say he did talk a good deal about what he was doing. He was not a pessimist, but he was an optimistical fellow. We generally talked when we were together. He never bored me to death; but he was a good talker — a good entertainer. I could not say that he had a general reputation for being windy; that was my impression.

J. R. CHEEK, a witness called and sworn on behalf of the plaintiff, in rebuttal testified as follows:

DIRECT EXAMINATION

I live at Houston, and have lived there about four and a half years; am engaged in the subdivision business, handling Magnolia and Central Park real estate; my corporation, known as the Magnolia Tract Land Company, has one thousand acres between Houston and the [**2948**] head of navigation along the Harrisburg road. We cut it up into blocks and are retailing it out. We have sold something over two million dollars worth of property from this so far. I am president of the company and own practically half of the capital stock, amounting to $300,000.00. I am president also of the Manchester Corporation, which owns four hundred and fifty acres of land adjoining Harrisburg and known as "Manchester". Its capital stock is $200,000.00 and I practically own that company. It is not doing any active business in the sale of real estate. It is just a holding company at present. We value that land at $750.00 an acre, which is the present market price. I am also Secretary of the Viaduct Land Company, which is a real estate business and a holding concern. The amount of capital stock of that company is $100,000.00 and I own one-third of the stock. It owns two hundred and sixty acres of land north of the Fifth Ward and the land is worth from $400.00 to $500.00 an acre. I was engaged in the oil business at Spindletop, Sour Lake, Batson and Humble, beginning at Spindletop, in 1901, and up to 1908 at Humble.

I was operating there for myself in all of those

places. I had several wells at Spindletop. I drilled several wells there and they were producing. I never produced very much oil at Spindletop as there was no outlet for the oil. I produced oil at Sour Lake, Batson and Humble. I had half a dozen wells at Sour Lake and they were all producing. The highest production I had there was about nine hundred barrels per day from all these wells. I operated those wells four or five years. They were on my own property. We had eight wells at Batson that I was interested in with others. I would estimate that we had a production of six or seven hundred barrels per day there for a while. We operated there for about a year. I have also operated wells at Humble. I was interested in [**2949**] three or four producing wells there and I own some property there now. The highest production we ever got from the Humble wells was three hundred barrels a day, but we had a good gas production there for a while. I knew a man at Spindletop by the name of Thomas J. Griffin. I knew him at Galveston before he went to Spindletop, but I became intimately acquainted with him at Spindletop. He was connected with the Palestine Power Company. I don't know whether it was called the Palestine-Beaumont Power Company or not. I know that Mr. Bass was associated with Mr. Griffin and there was also a man named Bird. I knew Mr. Griffin well during those years. I knew him quite well at Spindletop. He had an office there on Spindletop Avenue and we used to get him to do some work for us. He

pulled pipe out of the wells and furnished compressed air and power. He was an active man in the field when I knew him. He was right on the job there all the time. I think he was the manager, as he was the man that I had the most to do with when I went there — he and Bird. I found when I had business relations with him that he was a man whose word could be relied upon in the matter of business. I was well acquainted with a good many business men in those several towns in which I was operating during that period. There were a great number at Spindletop that I didn't know, but I knew some of them, and when you ask me if I knew the general reputation of Thomas J. Griffin for veracity and honesty and integrity and truth in that community of Spindletop while I was operating there, I will say I never heard anybody say anything against him at all. I was [2950] in a position to know what his general reputation was there. I think I do. I knew a good many people there of his acquaintance and they all spoke well of him. Mr. Griffin's reputation for truth and veracity, honesty and integrity was good in every community in which I knew him. I have never heard his reputation for evil discussed in any way.

CROSS-EXAMINATION OF J. R. CHEEK

When I say that Mr. Griffin's reputation was good in every community in which I knew him, I refer to Galveston, Beaumont, and Sour Lake. I knew him at Galveston prior to 1900 only to talk to. I never

had any business with him until I got to Spindletop. When he was at Galveston, he was connected with some transportation concern there and I was living in Galveston. I heard Fred Chase discuss him in Galveston. There was quite a Galveston bunch that went up to Spindletop and Beaumont and various ones were dealing with Griffin and I think if he had had a bad reputation, I probably would have heard it. I don't know whether Griffin went to Beaumont before or after me. I knew him at Beaumont during the period of one or two years and then he went to Sour [**2951**] Lake. I had dealings with Mr. Griffin and Mr. Bird at Spindletop. He used to test out wells there with air. We often were on the road and our men would go up there and get him to test out a certain well. I think at that time Mr. Griffin was living at Beaumont and I was living at Beaumont; that is, I was living at Galveston, but staying at Beaumont. I spent 80% of my time in 1901 and 1902 at Beaumont, Sour Lake and Spindletop; practically lived there. After I went up to the oil fields, I became intimately acquainted with Mr. Griffin; he worked for us. When I say that we were intimately acquainted I mean exactly as you would be with a man who was furnishing air to flow your wells. I would go and make arrangements with him to flow a well and he would tell me when he could do it and he would be there to see if it was done. Our acquaintance, of course, was only in a business way; not a social way. I was a man that went around town to various places

where drillers would congregate and I have met Mr. Griffin at various places. I met him at the Cosby House, where I stopped part of the time. I don't remember ever hearing any special discussion about Mr. Griffin further than that I have heard people speak of having done business with him or with the company that he was connected with. He always kept his word with me. He was not unusually a talkative man, but he never hesitated to answer any question I ever asked him. He never did any boasting to me about what he had accomplished. I never heard that he had a reputation in the field of being windy and I never considered him windy and he never evidenced any traits of that [**2952**] character in his conversation with me. My dealings with him were principally business dealings in connection with wells that I was operating. We did not have an intimate social acquaintance; I didn't run with him. All the people there that spoke of him spoke well of him. I never heard anyone speak ill of him. I heard D. R. Beatty there speak of him. He said that Mr. Griffin was doing his work. I know Mr. Beatty boasted about the work that Griffin did at Sour Lake in shutting off his well, as it was considered in the field quite a nervy thing to do, and Mr. Griffin was commended by many people for doing that particular thing. I heard a man there by the name of Birmingham that Griffin did business for at Spindletop speak of him. I never heard him say anything against him. I heard Frank Yost at Beaumont speak of him. He had busi-

ness with him and he never said anything against him. I have heard him speak of the work done by Mr. Griffin and he had no complaint about that work. I know he would have impressed me if he had ever complained of Griffin's work. When I was at Beaumont, Spindletop and Sour Lake, I don't know of Mr. Griffin making any trips to California, but I think in the latter part of 1903 or the early part of 1904 he came into my office at Sour Lake and said that he was going West. I don't know where he went; I think he went away and left that part of the country along about that time. I don't think that was as late as August, 1904. The first time I ever heard of this case was this morning. At that time Mr. Mills spoke to me about it and he asked me to come down here. When I saw Mr. Griffin last April he did not tell me [**2953**] what he was doing in California. I only spoke to him about two minutes. I think from the description I have given of Mr. Griffin that I am in a position to know what his reputation amongst those with whom he associated generally in Spindletop and Sour Lake was. Mr. Griffin never made a statement to me that he didn't make good. I never knew him to make statements that were overdrawn and in that respect his reputation amongst those with whom he commonly associated was good. I know that to be a fact. I never heard anyone discuss his propensity to brag. The Mr. Birmingham that I mentioned was an operator over there.

NOAH ALLEN, a witness called and sworn on behalf of the plaintiff in rebuttal, testified as follows:

DIRECT EXAMINATION

I reside at San Antonio, Texas, and am fifty-eight years old last February; I am an attorney at law, and have practiced thirty-seven years, having been admitted to the bar in Missouri in 1876; I practiced at Wichita, Kansas; Denver, Colorado; and in Galveston, Houston and Brownsville, Texas; I was assistant attorney general of Kansas under the Llewellyn administration; I was the Populist candidate for congress in 1896, and was judge of the Corporation Court of the City of Galveston for approximately two years, and resigned that position and went to the Beaumont oil fields in the oil excitement there; in 1892 I was a presidential elector on the Populist ticket; for the past five years and up to August of last year I held the position of Assistant United States District Attorney for the Southern District of Texas. For one or two years I was attorney for the Gulf and Interstate Railway Company. I was one of the directors and vice president of the Zenith Oil Company. I was also a director and I think I was vice president and general manager of the Gold Standard Oil Company and the Texla Oil and Refining Company. Associated with me in the Gold Standard Oil [**2954**] Company was Mr. Tom Dunn, Cashier of one of the large local banks here in Houston, Texas; Mr. Lovejoy, a prominent attorney both here and in Galveston; Mr.

Alex Sampson; and Mr. James Butte, a prominent merchant.

I know Thomas J. Griffin; I first knew him at Galveston in 1894; I went to Galveston in 1894, and it was possibly a year and a half or two years after that I first met Griffin; I knew him some time before the Galveston storm; I knew him at Beaumont, and knew about when he went to Beaumont, but cannot fix the exact date.

I am quite well acquainted in Galveston, and am intimately acquainted with the reputation of Griffin in that community for truth, veracity, honesty and integrity; it was quite good.

I am also well acquainted in Beaumont; I go back and forth and am acquainted with the people, especially in the oil fields, and also at Spindletop, and know Griffin's reputation for truth and veracity, honesty and integrity in both of those places; it is good. If Mr. Griffin had any reputation but a good reputation in any of the communities in which I knew him, I think I would have known it.

I remember talking with him about going to California. I should judge probably a year and a half or two years before I moved from Houston, but I do not know the time; it is my recollection that it was some time after I withdrew from the Beaumont field that I talked with him about that, but as to just when it was, the time of year, or what year, I could not say. I think it was as late as the winter of 1903 and 1904.

CROSS EXAMINATION OF NOAH ALLEN

On Thursday or Friday I received a letter from Mr. Mills, addressed to me at Brownsville, and forwarded to San Antonio, asking me if I would come and testify in this case.

I was acquainted with Mr. Griffin at the time I was corporation [**2955**] judge in Galveston; my recollection is that I knew him before the election of Mayor Jones; I think Griffin took part in that election, and my recollection is that he supported Jones. I cannot tell just what his specific employment was at that time, but I think when I first got to know him he was engaged in business as an engineer; I am not certain where he lived; I never visited his home, and was no more intimate with him than with people in different parts of the city; I think Griffin assisted in the Jones campaign from there. I do not think I ever had any personal dealings with him; I cannot say whether it was at Beaumont, or at Houston that I last saw him.

I cannot remember the conversation about Griffin going to California, but simply remember seeing him and talking with him about California—either that he was going or had been there, but think he said he was going to California, he did not say what part; I do not remember the conversation, but just barely the circumstance of his mentioning the fact that he was going to California, or something of that kind; I do not know whether he went or not; he did not say whom he was going with, and I do not remember what

he said about it, if he did; I cannot remember the year he made this statement, and would not attempt to fix the year, because I had no occasion to remember, nothing particular to remember it by, other than simply it was possibly among the last times I was at Beaumont.

I never had any business dealings with Mr. Griffin of any kind, and do not know from personal experience what sort of a man he is in business dealings.

BEN S. DAVIDSON, a witness called and sworn on behalf of the plaintiff, in rebuttal testified as follows:

DIRECT EXAMINATION

I am chief of police of Houston, which has a population of one [**2956**] hundred and twenty or one hundred and twenty-five thousand; I have lived in Texas forty-three years, and have lived in Galveston fifteen years; I was chief deputy sheriff in Galveston about six years prior to going to Houston, and also city clerk of Galveston one term.

Since I have been in Houston I have been associated with W. S. Hipp, in contracting, paving, grading and railroad construction work. During my residence in Galveston I became acquainted with Thomas J. Griffin; he was living there at the time I knew him; I knew him for two or three years; I am myself very well acquainted in Galveston; I did not know Griffin anywhere else excepting at Galveston, and lived in no other community with him; I think I was in a posi-

tion to know his reputation generally for truth and veracity, honesty and integrity, in Galveston; it was good as far as I know; I have heard nothing bad about him at any time. [**2957**]

Cross-Examination:

While I was in Galveston I knew Mr. Griffin mighty well; I was an associate of his in a political way; several people who were friends of Griffin and myself took it upon ourselves to elect a certain man there to a certain office, and during that election he and I had occasion to be very familiar; I was in almost daily contact with him during that campaign,—the Fly and Jones campaign for mayor; we were supporting Jones. The others associated with Griffin in the fight were Marcene Johnson, George McCracken, a lawyer, and several others, and there was a man by the name of Noah Allen; I was in the same crowd; we formed a sort of campaign committee; I do not know what part Griffin took in the fight but we made the rounds nightly, as was customary in those times, making ward speeches and campaigning generally on behalf of the candidate; this was in 1908, as far as I can remember.

I cannot say where Griffin lived in Galveston; I did not live in the same neighborhood with him; my chief knowledge of him came from my association with him in that campaign; I did not know him after he went into the oil fields, or know anything about his reputation; I have not seen him since, until twenty minutes ago.

Griffin was a free talker, good off-hand, pretty good single-handed talker; he could hold his own in a crowd telling his experiences; he told a pretty good story about what he had done, and would top the other fellow if he could.

Redirect Examination.

My chief knowledge of Mr. Griffin was gained in that campaign; outside of that I did not know very much about him.

Recross-Examination.

I have never heard Griffin's character discussed by anybody. [**2958**]

GEORGE Q. McCRACKEN, a witness called and sworn on behalf of the plaintiff in rebuttal, testified as follows:

DIRECT EXAMINATION

I live in Galveston, Texas, and have lived in Texas since 1877; about thirty years in Galveston; I practiced law at Galveston for eleven years, and was city clerk of that city from 1899 to 1901; I was also clerk of the police department from 1895 to 1899; during that period I knew Thomas J. Griffin; as well as I can recollect he was an engineer; I first knew him in Galveston along in 1898 or 1899; I considered his reputation for truth and veracity, honesty and integrity as good. My estimate of Mr. Griffin, basing my answer upon my acquaintance with him and the reputation which he bore in that community, is that he is a man whose statement you would take as the truth. I have never heard anything against Mr. Griffin.

CROSS-EXAMINATION OF GEORGE Q. McCRACKEN

Mayor Fly appointed me clerk of the police department, and I held that position until 1899; I was appointed city clerk of Galveston by Mayor Jones; Mayor Jones was elected in 1899, and I worked during the campaign for his election; he was a candidate against Fly; I was associated slightly with Noah Allen in that election, and with Mr. Davidson; we were all interested in seeing Jones elected, and took an active part in the campaign work; I think Griffin was interested in the campaign, and he was quite active in trying to have Mr. Jones elected Mayor.

To the best of my recollection, I became acquainted with Griffin about a year before the campaign, or it might be two years, but I cannot say definitely; I thought that he was an engineer of some kind, but I kept no track of him, as I had no occasion to do so; I may have known him as I did a number of other citizens of Galveston that I might come in contact with, and Griffin was among [**2959**] that number; that is my best recollection; I think he lived in Galveston in 1901; I had no occasion to keep track of his movements at that time, and do not recollect where he lived in Galveston; I was not socially acquainted with his neighbors.

During the campaign I saw Griffin two or three times a week; the campaign lasted six or eight weeks, and after the election I saw him probably two or three times a week; I had no business relations with

him outside of the campaign; he was not a client of mine, nor were any of his associates; my acquaintance with Griffin centered largely around the campaign, and after that I had no occasion to keep track of him at all; I had no business dealings with him of any kind, and he had no occasion to come to my office, and I had no occasion to look him up; my acquaintance with Griffin was no different than with others engaged in the campaign; I had no knowledge of his reputation after he went to Beaumont, and after he left Galveston I made no inquiries concerning him; in fact, I have not seen Griffin since he left Galveston.

I never heard anything derogatory said against Mr. Griffin while he lived in Galveston. The fact of the matter is I always considered Mr. Griffin a man of truth and veracity. I have never heard anything said derogatory to his character as to truth, honesty, veracity and integrity at any time. My observation of Mr. Griffin was that he was very loyal to his friends.

ALBERT ADAM SNELL, a witness called and sworn on behalf of the plaintff in rebuttal, testified as follows:

DIRECT EXAMINATION

I reside in Bryan, Texas, and am engaged in drilling wild-cat oil wells at Spindletop; I am acquainted with certain oil operators there; I operated in Sour Lake, Batson and Saratoga, and also in the Louisiana field.

I knew Griffin quite well there, but do not know

just how [2960] long; I knew him at Sour Lake, possibly two years; my first acquaintance with Griffin was at Spindletop when he was running a big air plant there; I had no business dealings with him at Batson, but drilled him some water wells at Sour Lake for an air plant at Spindletop, and also at Sour Lake for an air plant that he operated there; Griffin was well known among the oil people, oil operators, at Spindletop and Sour Lake, and from my association with him in the Spindletop and Sour Lake and with other operators there, I was acquainted with his reputation for truth and veracity, and it was good; I never heard anything detrimental to it.

CROSS EXAMINATION OF ALBERT ADAM SNELL

I had dealings with Mr. Griffin. I drilled some water wells for him at Spindletop and Sour Lake. He was the man that made the contract with me and paid me. There never was any contract drawn up. If Mr. Griffin wanted a water well he came over and said: "Have you got a rig that you can come over and drill me a water well?" I said, "Yes", and he would say, "What can you do it for?" and I would say, "So much a foot." I went over and drilled a well and when I got through I presented my bill and got my money. Sometimes, if I wanted a hundred or two hundred dollars, I said: "Griffin, I need a couple of hundred dollars." Sometimes he had the money in his pocket and he would hand it to me. Sometimes he would give me a check. I drilled wells for the Spin-

dletop company under Mr. Griffin's instructions. I had no dealings with any other person connected with the Spindletop Power Company, although I knew Mr. Bass when I met him, but I never had any business dealings with him.

I knew Mr. Griffin for two years at Sour Lake, but do not remember what years they were, I cannot fix the time; I had no wells at Spindletop, and did not purchase any air from the Spindletop Power Company; I was in the water well business several years in [**2961**] the coast country; I drilled wells from Maragorda County up to Louisiana; at one time I had seven drilling rigs running; I had charge of the drills and went from one place to another; I did not spend all of my time at any one place; I did not know that Mr. Griffin was living at Sour Lake when I was operating there; I did not know any of his associates over there, or at Spindletop; I did not travel with the same crowd.

I had no business dealings with Griffin at Batson; I do not know of my own knowledge, nor have I ever heard that he was employed by the Rio Bravo Oil Company; I do not know that I ever heard anybody discuss Griffin's reputation, and was not interested in finding out about it; we were friendly in a social way, and still are; he was always a free talkative fellow, full of fun, that is, with me. He is a hail fellow, well met; by golly, he is a good fellow to all his friends, and was very liberal. I cannot say that he did any more talking than other people I have come

in contact with. I have seen fellows that talked a good deal more than he did. He is not what you would call windy. I think he is a conservative business man. He was conservative in his statements to me. I have never heard anything detrimental to his character. I always addressed him as Mr. Griffin. I never heard him [**2962**] called by any nickname. I never heard him called "Spindletop Griffin". I don't know what his associates called him.

REDIRECT EXAMINATION

From what I know of Mr. Griffin, and basing my statement on my general acquaintance with conditions in the oil fields, he was a man of prominence and large affairs in the communities of Sour Lake and Spindletop.

RECROSS EXAMINATION

I know that he was operating at that time a very large air plant, which I presume, from the experience that I have had in the air proposition myself, was worth at least fifty or seventy-five thousand dollars. I don't know what interest Mr. Griffin had in the plant. I only considered that Mr. Griffin had the authority to give me a contract and he paid me for what work I did. I never gave the thought that he owned the entire plant any consideration. I formed the conclusion that he was a man of large affairs from the fact that when Mr. Griffin wanted any work he came to me and said that he wanted me to do it and I did it and I got my money. I didn't know whether Mr. Griffin owned the plant or who owned it. I pre-

sumed that from the fact that I was asked to do the work and got my money, that I concluded that he was a man of large affairs, and I don't know as I have any other reasons for so stating. [2963]

REDIRECT EXAMINATION

Mr. Griffin was operating the Spindletop Power Company and it was a very busy concern. It was busy operating flowing wells for the different operators in the field. I knew that he was operating continuously and that it was essential that he have sufficient water to run his plant. I know that it was urgent, when he called on me to drill those water wells for him, to make those wells and do it quick, and I based my opinion that he was a man of large affairs from the fact that he did operate and flow wells for other people, and not alone from the fact that he employed me to make wells and paid me for it.

RECROSS EXAMINATION

I base my conclusions upon dealings with Mr. Griffin, as I found all those dealings came out all right, and I therefore concluded that he was all right. I never had any business dealings with Mr. Griffin after the Spindletop Power Company went into the hands of a receiver. [2964]

P. G. WILLIAMS

Witness called in behalf of Plaintiff in

REBUTTAL.

November 28, 1913. San Francisco, Cal.

Direct Examination.

I am the same P. G. Williams who testified in this case for the defendants; I am secretary, also auditor, of the Associated Oil Company; I succeeded G. Sheridan as secretary about the 18th day of August, 1912; the duties of secretary and auditor of that company are entirely separate and distinct; as secretary my duties are to attend the meetings of the board of directors, and stockholders' meetings; to record the minutes of those meetings, and to have the custody of contracts and leases; I have general custody of the records of the corporation, as secretary, including the minutes of different meetings of the directors, the executive committee, and stockholders; I have here copies of annual statements issued by the Associated Oil Company from the date of its origin to the year 1912; it was organized in October, 1901; the last statement is dated December 31, 1912; there is an annual statement for each year, with the exception of 1909, at which time the same statement as issued to the stock exchange of New York was issued to the stockholders in lieu of the regular annual statement; these statements, taken generally, contain the names of the officers and directors of the corporation, with three exceptions wherein I have amended them so as to show the names as now presented; I now produce the annual statements for the years 1902, 1903, 1904, 1905, 1906, 1907, 1908, 1910, 1911 and 1912.

The Associated Oil Company is capitalized at forty million dollars; 400,000 shares of the par value of

$100 each, all of which has been issued; I have examined the books and records of this corporation for the purpose of determining the number of its shares held by the Southern Pacific Company during the time [2965] intervening between its organization and the present; the Southern Pacific Company first acquired stock of the Associated Oil Company January 1st, 1904, amounting to 40,299 shares; all the stock of that corporation belonging to the Southern Pacific Company has been issued in its name; none has been issued to any other party to be held in trust for the Southern Pacific; this stock was all disposed of during the year 1904; giving the figures as of the first of January, of each year, the next year that the Southern Pacific Company held any stock of the Associated Oil Company was 1909, 206,971 shares; 1910, 200,690 shares; 1911, 200,690 shares; 1912, 200,685 shares, and January 1st, 1913, 200,685 shares. In 1905 there were 54,898 1/100 shares of the Associated Oil Company standing in the name of W. F. Herrin, Trustee; it stood in Mr. Herrin's name for several years, and during the year 1908 it was transferred to the name of the Southern Pacific Company, and so appears upon its books; to the best of my knowledge no other stock was ever held in trust and afterwards transferred to the Southern Pacific Company; I have not examined the books and records to ascertain from whom Mr. Herrin acquired his stock, I do not know; on January 1st, 1909, the Southern Pacific Company held a few more shares, practically only 703 shares,

besides that stock acquired from W. F. Herrin; during all the time from January 1, 1909 to January 1, 1913, the Southern Pacific Company held a majority ownership of the capital stock of the Associated Oil Company; as of January 1, 1908, there appears in the name of W. F. Herrin, Trustee, 206,268 shares, and that was transferred to the Southern Pacific Company during 1908; that includes the 54,000.

The names of the officers and directors of the Associated Oil Company appear on the title page of the official first annual statement of the company issued to its stockholders; I did not prepare this statement, and have not compared it with the records of the Associated Oil Company. [**2966**]

That portion of said first annual report showing the title page and names of the officers and directors of the Associated Oil Company was introduced in evidence, and extended into the record, as follows:

"First Annual Statement Associated Oil Company. Year 1902. Statement made Stockholders at Annual Meeting Held February 24, 1903. San Francisco, Cal., February 24, 1903.

OFFICERS

J. A. Chanslor	President
Wm. G. Kerckhoff	1st Vice-President
W. A. Jacobs	2nd Vice-President
W. S. Porter	General Manager
O. Scribner	Secretary

DIRECTORS

C. A. Canfield	Wm. G. Kerckhoff
W. F. Chandler	Burton E. Green
W. A. Jacobs	W. S. Porter
B. F. Brooks	John A. Bunting
O. Scribner	Frank H. Buck

J. A. Chanslor

The first annual statement does not show the names of the executive committee; there was no executive committee as of that date, nor was there an executive committee at the time of the annual statement of 1903.

The annual statement of 1903 originally contained the names of the officers only, and I have typed in from the records the names of the directors.

The extract from the Second Annual Statement of the Associated Oil Company last referred to was introduced in evidence, and is as follows:

"Second Annual Statement Associated Oil Company. Year 1903. [**2967**] Statement Made Stockholders at Annual Meeting Held February 29, 1904.

OFFICERS

J. A. Chanslor	President
W. S. Porter	1st Vice-President and General Manager
W. F. Chandler	2nd Vice-President
B. E. Green	Treasurer
O. Scribner	Secretary

(In typewriting) DIRECTORS

B. F. Brooks
W. S. Porter
W. G. Kerckhoff
J. A. Chanslor
Burton E. Green
Frank H. Buck
W. F. Chandler
W. A. Jacobs
John A. Bunting
O. Scribner
C. A. Canfield

The official statement for the year 1904 originally bore the names of the officers, and I have typewritten the names of the directors from the records of the corporation. There was no executive committee during that year.

The portion of the third annual statement of the Associated Oil Company last referred to was introduced in evidence, as follows:

"Third Annual Statement Associated Oil Company. Year 1904. Statement Made Stockholders at Annual Meeting Held February 27, 1905. San Francisco, Cal., February 27, 1905.

OFFICERS

J. A. Chanslor	President
W. S. Porter	1st Vice-President and General Manager.
W. F. Chandler	2nd Vice-President

B. E. Green	Treasurer
O. Scribner	Asst. Gen. Manager and Secretary
W. A. Sloan	Assistant Secretary

(In typewriting) DIRECTORS 1904

O. Scribner
John A. Bunting
W. F. Chandler
C. A. Canfield
Burton E. Green
Frank H. Buck
W. S. Porter
J. A. Chanslor
M. H. Whittier
Henry Ach
C. B. Lillie

I have prepared a list or roster of the officers and directors of the Associated Oil Company for the year 1905, and the same is typewritten and attached to the financial statement for that year, which I now produce.

The portion of said financial statement bearing the names of the officers and directors of said corporation was introduced in evidence, and as introduced, follows:

"Financial Statement of Associated Oil Company for year ending December 31, 1905. Submitted to Stockholders at their annual meeting, held February 26, 1906.

(In typewriting, attached to statement):

DIRECTORS

1905

J. A. Chanslor	M. H. Whittier
W. S. Porter	W. F. Chandler
O. Scribner	W. G. Kerckhoff
C. A. Canfield	Frank H. Buck
Burton E. Green	W. F. Herrin

E. T. Dumble

OFFICERS:

J. A. Chanslor	Pres.
O. Scribner	Sec'y.
W. A. Sloan	Asst. Sec'y.
W. S. Porter	1st Vice P.
W. F. Chandler	2nd " "
Burton E. Green	Treasurer
W. S. Porter	Gen'l Mgr.
O. Scribner	Asst. Gen. Mgr.

EXECUTIVE COM: W. S. Porter, Burton E. Green and J. A. Chanslor. [**2969**]

The document now shown me is the official statement of the corporation for the year 1906, and bears the names of the officers and directors for that year. There was no executive committee in 1906.

That portion of said statement bearing the names of the officers and directors was introduced in evidence, and is as follows:

"Fifth Annual Statement, Associated Oil Com-

pany. Year 1906 San Francisco, Cal., February, 1907.

ASSOCIATED OIL COMPANY
OFFICERS

J. A. Chanslor	President
W. S. Porter	1st Vice-Pres. and General Manager
W. F. Chandler	2nd Vice-President
B. E. Green	Treasurer
O. Scribner	Asst. Gen. Manager and Secretary
W. A. Sloan	Asst. Secretary.

ASSOCIATED OIL COMPANY
DIRECTORS

F. H. Buck	Burton E. Green
C. A. Canfield	W. F. Herrin
W. F. Chandler	Wm. G. Kerckhoff
J. A. Chanslor	W. S. Porter
E. T. Dumble	O. Scribner

M. H. Whittier."

The next paper represents the sixth annual statement of the Associated Oil Company, for the year ending December 31, 1907. It is the official statement for that year, and contains the names of the officers and directors. There was no executive committee in 1907.

The extract from said statement showing names of of- [2970] ficers and directors was intriduced in evidence, and is as follows:

"Sixth Annual Statement, Associated Oil Com-

pany. Year 1907. San Francisco, Cal., February, 1908.

DIRECTORS

F. H. Buck	C. A. Canfield
W. F. Chandler	J. A. Chanslor
E. T. Dumble	Burton E. Green
W. F. Herrin	Wm. G. Kerckhoff
W. S. Porter	O. Scribner

M. H. Whittier

OFFICERS

J. A. Chanslor	President
W. S. Porter	1st Vice-Pres. and General Manager
W. F. Chandler	2nd Vice-President
B. E. Green	Treasurer
O. Scribner	Asst. Gen. Manager and Secretary
W. A. Sloan	Asst. Secretary."

The next is the Annual Report of the Associated Oil Company for the year ending December 31, 1908. It is the official statement of the corporation, and so far as I know it is correct, and contains on the names of the officers and directors in print; I think the notations in pencil are changes in directors for the following year, and that this copy was used in preparing the report for 1909; the printed names are correct, and no attention should be paid to the pencil memoranda.

So much of said document as appeared on the second page, following the title page, showing the di-

rectors and officers and executive committee, was introduced in evidence, as follows:

"Annual Report, Associated Oil Company, 1908. December 31, 1908.

DIRECTORS

F. H. Buck	W. S. Porter	Burton E. Green [2971]
W. F. Chandler	C. E. Canfield	Wm. G. Kerckhoff
(In pencil: Shoup)	In pencil: Kirkpatrick)	(In pencil: Herrold)
E. T. Dumble	J. A. Chanslor	O. Scribner
W. F. Herrin		M. H. Whittier

EXECUTIVE COMMITTEE

F. H. Buck W. S. Porter, Chairman J. A. Chanslor
Wm. F. Herrin Burton E. Green

GENERAL OFFICERS

J. A. Chanslor	President
W. S. Porter	1st Vice-Pres. and General Manager
W. F. Chandler	2nd Vice-President
O. Scribner	Secretary and Asst. Gen. Manager
W. A. Sloan	Treasurer and Asst. Secretary."

On the page next preceding the last in the foregoing document appear the names of affiliated proprietary companies in which the Associated Oil Company owned stock at the date of the annual report, as follows: West Coast Oil Company, Recruit Oil Company, Commercial Petroleum Company, Buell

Rancho Oil Company, Shreeves Oil Company, Los Alimos Oil and Development Company, Bakersfield Iron Works, and Associated Supply Company. In 1908 The Associated Oil Company owned a majority of the capital stock in West Coast Oil Company, Recruit Oil Company, Buell Rancho Oil Company, Shreeves Oil Company, Baksersfield Ion Works, and Associated Supply Company.

The paper now shown me is an application to the New York Stock Exchange to list our stock in that exchange, dated April 19, 1910; the data contained therein is principally as of February 28, 1910, and contains the names of the directors and officers as of that date; it is signed by W. S. Porter, Vice-President; He was vice-president at that time; I have not prepared a list of the executive committee for that year; this is the report [**2972**] which I have testified was submitted, considered and distributed to the stockholders in lieu of the annual statement for 1909; to the best of my knowledge it contains the names of the officers and directors of the Associated Oil Company who were such during 1909; on pages 4 and 5 of this statement appear the names of companies other than the Associated Oil Company, of which it held the a majority of the capital stock in The Associated Transportation Company, West Coast Oil Company, Amalgamated Oil Company, Sterling Oil and Development Company, Associated Supply Company, Bakersfield Iron Works, and Buell Rancho Oil Company, Shreeves Oil Company, and Recruit Oil Company.

The last two paragraphs of said application were introduced in evidence as showing the names of the directors and officers of the Associated Oil Company as of February 28, 1910, and is as follows:

"The Directors of the Company are: W. F. Herrin, W. S. Porter, J. A. Chanslor, R. P. Schwerin, Burton E. Green, Paul Shoup, F. H. Buck, J. C. Kirkpatrick, E. T. Dumble, O. Scribner and Rudolph Herold.

The officers of the Company are: W. F. Herrin, President; W. S. Porter, J. A. Chanslor, Paul Shoup, R. H. Giles, Vice-Presidents; O. Scribner, Secretary; and W. A. Sloan, Treasurer."

To the best of my recollection, the 1909 executive committee continued the same at the date of this statement; I do not now know their names, but will procure the information and produce it later.

The document which you now hand me is the Annual Report of the Associated Oil Company as of December 31, 1910, and contains the names of the general officers, executive committee and directors as of that date; it is official.

The second page of said report, showing the names of [2973] such persons was introduced in evidence, as follows:

1910

ASSOCIATED OIL COMPANY

DIRECTORS

O. Scribner	W .S. Porter	Wm. F. Herrin
F. H. Buck	Burton E. Green	J. A. Chanslor

R. P. Schwerin Guy Shoup John C. Kirkpatrick
E. T. Dumble Rudolph Herold, Jr.

EXECUTIVE COMMITTEE

W. S. Porter John C. Kirkpatrick
F. H. Buck R. P. Schwerin
Wm. F. Herrin, Chairman

GENERAL OFFICERS

Wm. F. Herrin	President
W. S. Porter	1st Vice-Pres. and General Manager
O. Scribner	Vice-Pres. and Asst. Gen. Manager.
J. A. Chanslor	Vice President
G. Sheridan	Secretary
W. A. Sloan	Treasurer

Reading the first part of the second page, under "Elk Hills District", and which appears over the signature of W. S. Porter, Vice-President and General Manager of the company, is the following statement:

"We acquired by lease of mineral locations 3,200 acres of land in what is known as the Elk Hills District, North Midway, on which we are now drilling 13 wells, the deepest of which has penetrated oil formation. These wells are being drilled for the purpose of acquiring title to the land. Under the terms of our leases we have the option to purchase this land at a reasonable price."

This statement does not disclose all the companies

in which the Associated Oil Company owned or controlled a majority of stock ownership during that year; of those which are named here, [2974] it owned or controlled a majority of the stock of Pioneer Midway Oil Company Consolidated, Sterling Oil & Development Company, West Coast Oil Company, Amalgamated Oil Company. It also owned and controlled the Bakersfield Iron Works by ownership of majority of its stock in 1910, 1911 and 1912, and it does today.

The paper now handed me is the annual report of the Associated Oil Company as of December 31, 1911; it is the official statement of the Associated Oil Company, and contains the names of the general officers, executive committee and directors for 1911.

That portion of said report bearing the names of such persons was introduced in evidence, as follows:

"1911. Annual Report of the Associated Oil Company and Proprietary & Affiliated Companies. December 31, 1911.

DIRECTORS

Wm. Sproule W. S. Porter Wm. F. Herrin
F. H. Buck Frank G. Drum J. A. Chanslor
R. P. Schwerin A. D. McDonald John C. Kirkpatrick
M. H. Whittier Rudolph Herold, Jr.

EXECUTIVE COMMITTEE

Wm. F. Herrin, Chairman

W. S. Porter John C. Kirkpatrick
F. H. Buck Wm. Sproule

GENERAL OFFICERS

Wm. F. Herrin	President
W. S. Porter	1st Vice-Pres. and General Manager
D. B. Henderson	Ass't. Gen'l Manager
G. Sheridan	Secretary
W. A. Sloan	Treasurer

The said report is made to the stockholders through the Vice-President, and is signed by W. S. Porter, Vice-President and General Manager,—that is, a portion of it; reading from the top [**2975**] of page 2 which you mark in pencil:

"The work done by us in the Buena Vista Hills, on what are known as the McMurtry lands, demonstrates these lands to be of great value and capable of producing both oil and gas in large quantities."

And the last paragraph which is over the name of W. S. Porter:

"Notwithstanding the reduced selling price of oil, the net earnings of the company were approximately the same as during the preceeding year, and were used largely in paying for 4,261,144 barrels of oil purchased and stored during the year, and for the purpose of building additional storage to the extent of 1,500,000 barrels. The depreciation reserve amounting to $645,650.00 was used for the retirement of outstanding bonds, thus reducing our bonded indebtedness to that extent."

The defendants moved that both of the foregoing statements be stricken out, on the ground that they

are irrelevant to any of the issues in this case, immaterial, not rebuttal of any testimony introduced on behalf of defendants; incompetent, because relating to transactions of other than the defendants, and without any showing that the acts or statements made were authorized by parties to this action, or that the parties making them were authorized to represent the defendants.

The Southern Pacific Company did not own any of those bonds that were retired; there was a bond issue in 1902, an authorized issue of five million dollars, par value, but they were never all issued, or, rather, they were never all outstanding at one time; undoubtedly the records of the Associated Oil Company will show to whom the bonds were originally sold, but after they are disposed of they have no record of what was done with them; some of them were at one time held by the Southern Pacific or some of the subsidiary companies, but how many or [2976] what percent of the bonds were held by them I do not know; I can tell from the records how many bonds they acquired as of a certain date, but beyond that I cannot say; they are a gradually diminishing quantity, because outstanding bonds at five per cent are redeemed every year; our records do not show to whom interest was paid.

I now have a copy of the original official annual report of the Associated Oil Company for the year 1912, as issued and distributed to its stockholders, and containing the names of the officers and directors

and executive committee at that time, signed by William Sproule, President.

So much of said document as shows the names of the officers, directors and executive committee, and the two pages thereof signed by said president, introduced in evidence as follows:

DIRECTORS

(December 31, 1912)

F. H. Buck	Wm. F. Herrin	W. S. Porter
J. A. Chanslor	John C. Kirkpatrick	R. P. Schwerin
Frank G. Drum	A. D. McDonald	Wm. Sproule
Rudolph Herold, Jr.		M. H. Whittier

EXECUTIVE COMMITTEE

Wm. Sproule, Chairman

F. H. Buck	Wm. F. Herrin
Frank G. Drum	John G. Kirkpatrick

GENERAL OFFICERS

(December 31, 1912)

Wm. Sproule	President
J. A. Chanslor	Vice-President
J. R. Lewis	V. P. in New York
F. B. Henderson	Ass't Gen'l Manager
P. G. Williams	Secretary
W. A. Sloan	Treasurer
C. L. Coppage	Asst. Secy.
R. A. Page	Asst. Secy. in New York

ASSOCIATED OIL COMPANY

"To the Stockholders of the Associated Oil Company: [2977]

The Board of Directors submits herewith combined annual statement of the Associated Oil Company and its proprietary companies (Associated Supply Company and Bakersfield Iron Works) for the year ended December 31st, 1912.

Business earings after deducting all operating expenses, maintenance, transportation, etc., were		$3,992,128.16
Fixed charges		
Taxes	$157,892.33	
Interest on Bonds	775,265.12	933,157.45
BALANCE		$3,058,970.71
Depreciation reserve reinvested in the business		1,828,526.58
BALANCE TO PROFIT AND LOSS		$1,230,444.13

In 1912 has not been a satisfactory year in the fuel oil business. Over-production, which was a feature of 1911, reached a point in 1912 at which it became advisable to reduce our development work. Active drilling in the face of general over-production did not commend itself to the Management of this Company. It was deemed the conservative course to reduce drilling and draw from our supply of oil purchased.

OIL STORAGE:

During the year we increased our oil in storage

1,523,000 barrels; on December 31st, 1912, we had on hand 8,106,616 barrels.

TRANSPORTATION DEPARTMENT:

The Associated Transportation Company, which had operated our pipe lines and vessels as a separate corporation, was dissolved in 1912, surrendering to the Associated Oil Company all its assets, and that portion of the business is now handled as a department of this Company. The change reduced administration and other expenses.

MARINE DEPARTMENT:

During the forepart of 1912 our SS. "Rosencrans" met with two serious accidents, resulting in an expenditure of $150,000 for repairs. At the time of these accidents our fleet was not insured. [**2978**] Later in the year, all vessels and their cargoes were covered by insurance. During January 1913, the SS. "Rosencrans" (21,000 barrels capacity) was totally wrecked at the mouth of the Columbia River. We received from the Underwriters $250,000, being amount of the policy carried on that ship.

Plans have been completed for a new steamer, with capacity of 62,000 barrels. Contract for construction will be let at an early date for delivery about the middle of 1914.

REFINERY:

Since January 1st, 1913, construction has been commenced of a new refinery at Avon, on San Francisco Bay, with capacity for handling 10,000 barrels

crude oil per day. It will manufacture gasoline and engine distillate. The plans of the refinery are arranged so that extensions to the plant can be readily made for the manufacture of other products, should we determine hereafter to engage in such manufacture. It is expected that this plant will be ready for operation before the close of the year.

Both of our pipe lines from the San Joaquin Valley oilfields pass through our refinery site and will serve the refinery. The main lines of the Southern Pacific and Santa Fe Companies cross the property which has also deep water frontage for a wharf, construction and cost of which is included in the plan for handling our business. Supply of refining oil for the operation of this refinery is provided for by our oil purchase contracts and from the production of our own properties.

PRODUCTION AND NEW DEVELOPMENT:

During 1912, we completed the drilling of wells as follows: Kern River 4; Lost Hills 3; McKittrick 1; Midway 2. During 1913, active drilling has been resumed on our properties and it is expected that our production will show considerable increase for the the year. It has already increased. During March 1913, we produced 33,000 barrels over corresponding month of 1912. [2979]

No wells were drilled during the year on property we own in the Lost Hills, but 3 wells were completed on property which we have under lease there. One gas well and one oil well were drilled and completed

on our McMurtry properties in the Buena Vista Hills. Since January 1, 1913, two other wells have been finished on the McMurtry properties.

FINANCES:

Since January 1, 1913, the Board of Directors declared a dividend of 1½%, payable April 15, 1913, to stockholders of record April 10, 1913, with the suggestion that it be the policy of the company to pay semi-annually or at such intervals as the judgment of the Board may determine such dividends as the net earnings of the Company and cash available for that purpose may justify.

The cost of Avon Refinery and of the new steel tank steamer will aggregate about $1,750,000, and provision has already been made for these payments without borrowing or selling bonds.

It is believed that the Company will not need any new financing in 1913. Our affairs are in a promising condition. We look for increased earnings and the completion of the new refinery will establish the Company on a basis desirable to the stockholders.

AMORTIZATION:

The Company has adopted the policy of writing off a liberal amount annually for depreciation in order that the book value of the property at the end of any period may be on a trustworthy and conservative basis. Our sinking fund retires our entire bond issue within the limit of 20 years from date of authorization.

REORGANIZATION:

The Administrative and Field Departments of the Company have been reorganized during the year, effecting a reduction in our pay rolls at the rate of over $100,000 per year, with increase of [2980] efficieney.

We wish to make acknowledgement of the loyalty and zeal of officials and staff at headquarters and in the field.

WM. SPROULE,

April 1st, 1913. President."

Not all of the companies controlled by a majority of stock ownership are contained in this report, but reading from a list of all the companies, the following were so controlled by the Associated Oil Company during the years 1910, 1911, 1912, and 1913: The Amalgamated Oil Company, Associated Transportation Company — which has since been dissolved — Bakersfield Iron Works, Sterling Oil & Development Company, Associated Supply Company, West Coast Oil Company, Buell Rancho Oil Company — that is, up to to the time we disposed of our holdings — Shreeves Oil Company, the Recruit Oil Company. That is the complete list.

The 1912 report is the last one issued to date by the Associated Oil Company.

I now have the original record book of minutes of the executive committee, which is in my custody and control as secretary of the company; it purports to contain a record of the proceedings had at the several meetings of that committee for the periods therein

mentioned; page 192, and on page 193 through the second paragraph of volume 1 of said minutes reads as follows: "Minutes of Regular Meeting of Executive Committee of Board of Directors of Associated Oil Company.

San Francisco Cal., March 22, 1910.

Regular meeting of Executive Committee of Board of Directors of Associated Oil Company, held at San Francisco, California, on Tuesday, March 22, 1910.

The meeting was called to order at 11 o'clock a. m. by Mr. W. F. Herrin in the Chair. [**2981**]

Mr. O. Scribner acted as secretary of the meeting.

The Chairman directed the Secretary to call the roll, which disclosed the following:

Present: Messrs W. F. Herrin, J. C. Kirkpatrick and Paul Shoup.

Absent: Messrs. W. S. Porter and F. H. Buck.

The Assistant General Manager stated to the Committee that he had twenty year leases from March 12, 1910, at royalties ranging from one-eighth to one-tenth on the following described lands in the Elk Hills District, to wit:

Township 30 South, Range 23 East, M. D. B. & M.

Of Section 22: Northwest quarter;
Northeast quarter;
Southwest quarter;
Southeast quarter;

Of Section 24: Northwest quarter;
Northeast quarter;
Southwest quarter;
Southeast quarter;

Of Section 26: Northwest quarter;
Northeast quarter;
Southwest quarter;
Southeast quarter;

Township 31 South, Range 24 East, M. D. B. & M.

Of Section 5: Northwest quarter;
Northeast quarter;
Southwest quarter;
Southeast quarter;

that these lands required the drilling of one well on on quarter of each section to maintain possession of each section; that under the leases there was the right to abandon at any time and remove all personal property and improvements from the premises placed thereon by the Lessee; that it was necessary to take immediate possession of the property and build houses thereon which would require an expenditure of from $15,000 to $20,000.

On motion to that end duly made and seconded and unanimously carried, the Assistant General Manager was authorized on behalf of the Associated Oil Company to go into possession of [**2982**] the premises described in said leases, and to perform such acts as may be necessary to maintain possession thereof, and to spend as little money as possible pending the termination of the question whether or not the Associated Oil Company would drill on said premises.

* * * * * * * * *

O. Scribner
Secretary."

The first seven lines of page 199, volume 1, and the last line of the same page, introduced in evidence, is as follows:

"Minutes of Regular Meeting of Executive Committee of Board of Directors of Associated Oil Company.

San Francisco, Cal., April 26, 1910.

Regular Meeting of the Executive Committee of Board of Directors of Associated Oil Company held at San Francisco, California, on Tuesday, April 26, 1910.

The meeting convened at 11 o'clock a. m.

Mr. W. F. Herrin in the chair.

Mr. O. Scribner acted as Secretary of the meeting.

Present: Messrs. W. F. Herrin, Paul Shoup and J. C. Kirkpatrick.

Absent: Messrs W. S. Porter and F. H. Buck.

* * * * * * * * *

O. Scribner,
Secretary."

Also, reading from page 201, of the same volume, all but the last two paragraphs:

"Minutes of Regular Meeting of Executive Committee of Board of Directors of Associated Oil Company.

San Francisco, Cal., May 3, 1910.

Regular meeting of Executive Committee of Board of Directors of Associated Oil Company, held at San Francisco, California, [**2983**] on May 3, 1910.

The Committee convened at 12:15 o'clock p. m.

Mr. W. F. Herrin in the Chair.

G. Sheridan acted as Secretary of the meeting.

Present: Messrs. W. F. Herrin, J. C. Kirkpatrick, F. H. Buck and R. P. Schwerin.

Absent: Mr. W. S. Porter.

The Assistant General Manager recommended to the Committee that a Standard rig be erected on each quarter section of the lands covered by the Elk Hills leases, and a hole drilled to 500 or 700 feet on each quarter, one of the wells on such section to be drilled according to the terms of the lease.

The Committee directed that only sufficient work be done to comply with the terms of the leases as they exist.

* * * * * * * * *

G. Sheridan
Secretary pro tem."

Also, reading that part of page 202 appearing in the first seven lines, and on page 203, the second paragraph:

"Minutes of Regular Meeting of Executive Committee of Board of Directors of Associated Oil Company.

San Francisco, Cal., May 10, 1910.

"Regular meeting of Executive Committee of Board of Directors of Associated Oil Company, held at San Francisco, California, on May 10, 1910.

The Committee convened at 11:30 o'clock a. m.

Mr. F. F. Herrin in the Chair.

Mr. O. Scribner acted as Secretary of the meeting.

Present: Messrs W. F. Herrin and J. C. Kirkpatrick.

Absent: Messrs W. S. Porter, F. H. Buck and R. P. Schwerin.

* * * * * * * * *

The Assistant General Manager was authorized to erect a [**2984**] Standard rig upon each quarter section of the four sections of land now held under lease in the Elk Hills District, as well as on Section 30, 30 - 24, above referred to, and to drill one well on each section and start a well on each of the remaining three quarters of each section, drilling the same to a depth of from 500 to 700 feet.

* * * * * * * * *

O. Scribner,

Secretary."

And, further, from page 212, of the same volume, the first seven lines, and the last paragraph; and the first two words on page 213:

"Minutes of Special Meeting of Executive Committee of Board of Directors of Associated Oil Company.

San Francisco, Cal., June 3, 1910.

Special meeting of Executive Committee of Board of Directors of Associated Oil Company, held at San Francisco, California, on June 3, 1910.

The meeting convened at 11 o'clock a. m.

Mr. W. F. Herrin in the Chair.

Mr. O. Scribner acted as Secretary of the meeting.

Present: Messrs. W. F. Herrin, J. C. Kirkpatrick and F. H. Buck.

Absent: Messrs. W. S. Porter and R. P. Schwerin.

* * * * * * * * *

The Committee authorized the Assistant General Manager to pay W. B. Leland, et al. $1500. for their possessory rights in and to Section 30, 30-24, and to enter into an agreement with other and prior locators who held claims to said Section 30, 30-24, prior to the withdrawal of these lands from mineral entry, upon the basis of spending Five Hundred Dollars for each quarter section for making application for patent, one-half of each of said [**2985**] quarter section to go to the Associated Oil Company, and an option in the Associated Oil Company to buy the remaining half interest of the locators of said lands at Five Hundred Dollars per acre if purchased in one year, and Seven Hundred and Fifty Dollars per acre if purchased within two years.

* * * * * * * * *

O. Scribner
Secretary."

Also, on page 214, of the same volume, the first eleven lines:

"Minutes of Regular Meeting of Executive Committee of Board of Directors of Associated Oil Company.

San Francisco, Cal., June 7, 1910.

Minutes of Regular meeting of Executive Committee of Board of Directors of Associated Oil Company, held at San Francisco, California, on Tuesday, June 7, 1910:

The meeting convened at 11:30 o'clock a. m.

Mr. W. F. Herrin in the Chair.

G. Sheridan acted as Secretary of the meeting.

Present: Messrs W. F. Herrin, F. H. Buck and J. C. Kirkpatrick.

Absent: Messrs W. S. Porter and R. P. Schwerin.

The Assistant General Manager reported progress of work on lands in the Elk Hills District, based upon report of Mr. L. J. King, Superintendent, which report is dated June 4, 1910.

* * * * * * * * *

G. Sheridan
Secretary pro tem."

Also, that portion of page 287 containing down through the name R. P. Schwerin, absent; and on page 288, the fourth paragraph from the bottom:

"Minutes of Regular Meeting of Executive Committee of Board [**2986**] of Directors of Associated Oil Company.

San Francisco, Cal., November 29, 1910.

"Regular meeting of Executive Committee of Board of Directors of Associated Oil Company, held at San Francisco, California, on Tuesday, November 29, 1910.

The meeting convened at eleven o'clock a. m.

Mr. W. F. Herrin, President, in the Chair.

G. Sheridan acted as Secretary of the meeting.

Present: Messrs W. F. Herrin, W. S. Porter, Frank H. Buck and J. C. Kirkpatrick.

Absent: Mr. R. P. Schwerin.

* * * * * * * * *

The General Manager reported that the well of the Associated Oil Company on Section 26, Township 30 South, Range 23 East, Elk Hills, had been drilled to a depth of 3140 feet, and that the field manager advises that he looks for a gusher in this well.

* * * * * * * * *

G. Sheridan,
Secretary."

Reading from page 291, down to the words "Absent; None"; also, at page 292, the last two paragraphs; and on page 293 ending with the word "Secretary.":

"Minutes of Regular Meeting of Executive Committee of Board of Directors of Associated Oil Company.

San Francisco, Cal., December 6, 1910.

"Regular meeting of Executive Committee of Board of Directors of Associated Oil Company, held at San Francisco, California, on Tuesday, December 6, 1910.

The meeting convened at 11:15 o'clock a. m.

Mr. W. F. Herrin, President, in the Chair.

G. Sheridan acted as Secretary of the meeting.

[2987]

Present: Messrs. W. F. Herrin, W. S. Porter, F. H. Buck, J. C. Kirkpatrick and R. P. Schwerin.

Absent: None.

* * * * * * * * *

"The General Manager reported that the Associated Oil Company's well in Elk Hills is 3140 feet deep,

and that it has been lying idle for a week; that well in LostHills is 919 feet deep in blue shale.

The General Manager stated that he had reports from the Field Department that the Southeast quarter of Section 22, Township 30 South, Range 23 East, M. D. B. & M., Elk Hills has been jumped.

On motion to that end duly made and seconded and unanimously carried, the General Manager was authorized to commence drilling on each quarter section of all of our lands held under lease in Elk Hills, and described as follows, to wit:

Section	*Township*	*Range*
22	30 S	23 E
24	"	"
26	"	"
30	"	24 E
5	31 S	"

* * * * * * * * *

G. Sheridan
Secretary.

At page 297, to the words "Absent: None"; page 300, paragraph beginning, "The General Manager reported", and ending with "to the Committee", and page 301, the last paragraph, also page 302, the first three lines, appears the following:

"Minutes of Regular Meeting of Executive Committee of Board of Directors of Associated Oil Company.

San Francisco, Cal., December 20, 1910.

Regular meeting of Executive Committee of

Board of Directors of Associated Oil Company, held at the office of the company, Wells Fargo Building, San Francisco, California, on Tuesday, [2988] December 20, 1910.

The Committee convened at eleven o'clock a. m.

Mr. W. F. Herrin, President, in the Chair.

G. Sheridan acted as Secretary of the meeting.

Present: Messrs. W. F. Herrin, W. S. Porter, F. H. Buck, J. C. Kirkpatrick and R. P. Schwerin.

Absent: None.

* * * * * * * * *

The General Manager reported that there was no change in the Elk Hills well since the date of the last report to the Committee.

* * * * * * * * *

The Assistant General Manager reported to the Committee that at the time we took leases on lands in Elk Hills he was advised that there was but one set of locators, who made their location on January 1, 1910, and who were in possession of the property; that subsequently, on securing abstracts of title to the properties (which were delayed because of pressure of work in the office of the Abstract Company), and after the Oil Company had erected derricks and was in possession, he ascertained there were prior locators claiming to have made discovery of Fuller's Earth on the properties; that our leases on these lands carried an option to purchase, if exercised within one year, at $500 per acre, and at $750 per acre if exercised within two years from the date of

the lease; that for and on behalf of the Associated Oil Company he had entered into supplemental agreement with the Lessors extending the time of the option and reducing the purchase price to $250 and $375 per acre; also had a verbal understanding with the prior locators to receive three forty acre pieces of each quarter section for drilling a well on each quarter and also lease on the remaining forty in each quarter with option to purchase the same at One Thousand Dol- [2989] lars per acre.

* * * * * * * * *

Reading the first part of page 340 to the words "Absent: R. P. Schwerin.", a portion of page 341, commencing with the second paragraph, to the end of the third paragraph on page 342; and the paragraph immediately under Mr. Porter's signature, on the same page, is the following:

"Minutes of Regular Meeting of Executive Committee of Board of Directors of Associated Oil Company.

San Francisco, Cal., March 21, 1911.

"Regular meeting of Executive Committee of Board of Directors of Associated Oil Company, held at the office of the company, Wells Fargo Bldg., San Francisco, California, on Tuesday, March 21, 1911.

The Committee convened at eleven o'clock a. m.

Mr. W. F. Herrin, President, in the Chair.

G. Sheridan acted as Secretary of the meeting.

Present: Messrs. W. F. Herrin, W. S. Porter, F. H. Buck, and John C. Kirkpatrick.

Absent: Mr. R. P. Schwerin.

* * * * * * * * *

The General Manager presented the following report in reference to title to Elk Hills and McMurtry lands:

San Francisco, March 20, 1911.

To the Executive Committee:—

In examining into the titles to our Elk Hills Property, the present development of which indicates it to be oil producing land, I find that the mineral filings on which we base our title to this property were made subsequent to September 27, 1909.

Mineral filings were made on these lands prior to September 27, 1909, and are now held by Messrs McKittrick, Jastro, Tevis, [**2990**] et al, of Bakersfield. These parties have, however, done no active work looking to the discovery of oil, but have made slight excavations and uncovered a deposit, which they call "Fuller's Earth". Samples of this earth submitted to Smith, Emery & Company are stated by latter not to be Fullers Earth at all, nor capable of being used commercially for any purpose for which Fullers Earth is used. On the other hand Thomas Price & Son report that the sample furnished them will answer the same purposes commercially as Fullers Earth. Letters from both of the above chemists are enclosed herewith. We have forwarded samples to Stabler & Company at Los Angeles, for their report.

The claimants under these mineral filings have asked for a patent on Section 24, 30-23 and Section

30, 30-24 by reason of their discovery of Fullers Earth. I understand that generally the department is opposed to granting patents to lands on the discovery of minerals of this nature, especially where the lands are more valuable for oil.

I recommend the acquisition of these conflicting titles for the reason that they were made prior to September 27, 1909, and the work we have done, if applied against these filings would insure the issuance of a patent to us, providing we discover oil on each quarter section, which I think probable. In fact, we have made sufficient discovery on section 26 to enable us to obtain a patent at this time had the filings owned by us been made prior to the date of withdrawal.

We are under agreement to pay to the original holders of mineral filings, under which we are operating, various sums of money and rentals (one-eighth and one-tenth), should we acquire patent thereunder. It seems now that in order to be sure of acquiring patent we should acquire the Tevis, McKittrick, Jastro et al., filings prior to the date of withdrawal, and [**2991**] whatever we pay for such filings should be deducted from the payments we are under contract to make to the owners of other filings, which by reason of legislation have since become valueless, except for work done thereon by us. Mr. Scribner had some negotiations with Mr. Jastro looking to the acquisition of these filings made prior to September 27, 1909, and had agreed upon terms at which we would ac-

quire the same. They afterwards withdrew negotiations.

I suggest that the matter be taken up with Mr. Jastro and an endeavor made to complete the acquisition of these titles, and at the same time arrangements be made with the owners of the filings acquired by us, that a corresponding reduction, or some reduction be made from the payments due them, as their filings and our work will both be lost, under recent legislation, unless these conflicting titles are acquired.

I recommend that the matter be turned over to Mr. Scribner and that he again open negotiations through such channels as he thinks best, looking to the acquisition of these titles. Mr. Jastro has been friendly to us throughout the entire matter.

* * * * * * * * *

(Signed) W. S. Porter

The matter was generally and very carefully discussed by the Committee and, upon motion to that end duly made and seconded and unanimously carried, the matter was referred to the General Manager with instructions to see Mr. Tevis and ascertain about what he would want and report back to the Committee.

* * * * * * * * *

G. Sheridan

Secretary.

Also, that portion of page 351 consisting of the first seven lines; the last paragraph of page 353, and all of page 354, as follows: [**2992**]

"Minutes of Adjourned Meeting of Executive Committee of Board of Directors of Associated Oil Company.

San Francisco, Cal., April 19, 1911.

"Adjourned meeting of Executive Committee of Board of Directors of Associated Oil Company, held at the office of the company, Wells Fargo Building, San Francisco, California, on Wednesday, April 19, 1911.

Mr. W. F. Herrin, President, in the Chair.

G. Sheridan acted as Secretary of the meeting.

Present: Messrs. W. F. Herrin and John C. Kirkpatrick and Assistant General Manager O. Scribner.

* * * * * * * * * *

The Assistant General Manager reported that he had seen Mr. Jastro in reference to lands in Elk Hills; that Mr. Jastro stated that his people wanted One Thousand Dollars an acre for all of Section twenty-six and $250 per acre for the rest of the land. The Assistant General Manager advised Mr. Jastro that the company would pay $1000 per acre even if the land were patented, in fact we would pay any money until the title to the land was clear. Mr. Jastro desired us to make a proposition, which the Assistant General Manager said we would not do at the present time.

There being no further business before the Committee, on motion to that end duly made and seconded, the meeting adjourned.

G. Sheridan
Secretary."

Again reading so much of page 362 of the same volume as ends with the words "Absent: W. F. Herrin and W. S. Porter;" and page 363, excepting the first two and last lines:

"Minutes of Regular Meeting of Executive Meeting of Executive Committee of Board of Directors of Associated Oil Company.

San Francisco, Cal., May 31, 1911.

"Regular meeting of Executive Committee of Board of Directors [**2993**] of Associated Oil Company, held at the office of the company, Wells Fargo Building, San Francisco, California, on Wednesday, May 31, 1911, Tuesday, May 30, 1911, being a holiday.

The Committee convened at eleven o'clock a. m.

Mr. F. H. Buck was elected Chairman of the meeting.

G. Sheridan acted as Secretary of the meeting.

The Chairman directed the Secretary to call the roll, which disclosed the following:

Present: Messrs. F. H. Buck, R. P. Schwerin and John C. Kirkpatrick, and Assistant General Manager O. Scribner.

Absent: Messrs. W. F. Herrin and W. S. Porter.

* * * * * * * * *

The Assistant General Manager reported that he had been in negotiation with H. A. Jastro relative to settling the claims of the Haberkern locators on lands held by the Associated Oil Company in Elk Hills; that the proposition as submitted by Mr. Jastro looking toward a settlement was in the judgment of the Assistant General Manager unreasonable; that he

had a Mr. Fennell working quietly on the matter, and that Mr. Fennell reported that all of the locators would dispose of their claims for $200 per acre for all of the lands, but those in section 24, for which they wanted $1,000 per acre, which money was to be paid within one or two years after patent was issued by the United States Government. The Assistant General Manager stated that in addition to the analyses made by Smith-Emery Co. and Thomas Price & Son of San Francisco, that he had E. A. Stabler & Co. of Los Angeles make and analysis of the substance purported to be Fullers Earth, and on which the Haberkern locators would base their application for patent; that Stabler & Co. reported that the only samples which could be used at all for the purposes for which Fullers Earth is used are those samples taken from two quarter sections, to wit, the northwest quarter of Section 22 and [**2994**] northwest quarter of section 26, 30-23, and that in view of this report he thought it better to litigate on the whole situation and compromise on these two quarter sections rather than accept the proposition submitted by Mr. Fennell; that in his opinion it was impossible to get the benefit of their prior locations if we did compromise, and that this was one of the main reasons for compromising at all, and that he was not in favor of compromising at this time.

The matter of settlement was left with the Assistant General Manager with instructions to report back to the Committee the result of any negotiations he may have.

The Assistant General Manager reported that one of the locators on the south half of Section 24 and the south half of Section 22 in T. 30, S, R. 23 E, Elk Hills, now held by the Associated Oil Company under lease and option to purchase, had offered to sell us his one-eighth interest in the above for $1200 net; that our option to purchase this land was at $250 per acre after patent had been issued by the United States Government.

The matter was very generally and carefully discussed by the Committee, and on motion duly made, seconded and unanimously carried, the offer was declined.

* * * * * * * * *

G. Sheridan
Secretary."

Also page 375 of the same volume, to and including the words "Absent: Messrs W. F. Herrin and F. H. Buck," and on page 376, the second paragraph:

"Minutes of Regular Meeting of Executive Committee of Board of Directors of Associated Oil Company.

San Francisco, Cal., June 27, 1911.

"Regular meeting of Executive Committee of Board of Directors of Associated Oil Company, held at the office of the company, [2995] Wells Fargo Building, San Francisco, Cal., on Tuesday, June 27, 1911.

The Committee convened at eleven o'clock a. m.

In the absence of the President, Mr. W. S. Porter,

First Vice-President, took the Chair, and presided at the meeting.

G. Sheridan acted as Secretary of the meeting.

Present: Messrs. W. S. Porter, John C. Kirkpatrick and R. P. Schwerin.

Absent: Messrs. W. F. Herrin and F. H. Buck.

* * * * * * * * *

On motion of Mr. Kirkpatrick, duly seconded and unanimously carried, the Assistant General Manager was authorized to settle the controversy on the Elk Hills Lands with what are known as the 'Haberkoern-Klipstein' interests on the basis of paying $200 and up to but not exceeding $250 per acre within a year after these interests secure patents from the U. S. Government, if they do secure patent, it being understood that this involved four sections only, section 5 not being included in the controversy. It was recommended that this be done in the name of some individual or outside corporation, the name of the Pacific Petroleum Company being suggested.

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G. Sheridan
Secretary.

And reading from page 398, to and including the pages 'Absent: None', and the last paragraph thereof; and the first line of page 399:

"Minutes of Regular Meeting of Executive Committee of Board of Directors of Associated Oil Company.

San Francisco, Cal., August 22, 1911.

"Regular Meeting of Executive Committee of

Board of Directors of Associated Oil Company, held at the office of the company, [**2996**] Wells Fargo Bldg., San Francisco, Cal., on Tuesday, August 22, 1911.

The meeting convened at eleven o'clock a. m.

Mr. W. F. Herrin, President, in the Chair.

G. Sheridan acted as Secretary of the meeting.

Present: Messrs. W. F. Herrin, W. S. Porter, R. P. Schwerin, John C. Kirkpatrick and F. H. Buck.

Absent: None.

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In reference to drilling in Elk Hills, it was decided to continue drilling the five wells set forth on said report until further ordered. A report to be submitted at each meeting of the work performed and progress made.

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G. Sheridan
Secretary."

Reading from page 400 to and including the word "None", and the paragraph near the top of page 402, consisting of eleven lines, as follows:

"Minutes of Regular Meeting of Executive Committee of Board of Directors of Associated Oil Company.

San Francisco, Cal., August 29, 1911.

"Regular meeting of Executive Committee of Board of Directors of Associated Oil Company, held at the office of the company, Wells Fargo Bldg., San Francisco, Cal., on Tuesday, August 29, 1911.

The Committee convened at eleven o'clock a. m.

W. F. Herrin, President, in the Chair.

G. Sheridan acted as Secretary of the meeting.

Present: Messrs. W. F. Herrin, W. S. Porter, R. P. Schwerin, John C. Kirkpatrick and F. H. Buck.

Absent: None. [**2997**]

* * * * * * * * *

The General Manager advised the Committee that he had issued the following instructions in the matter of drilling on Elk Hills lands:

Section 5, 31-24; Well No. 1. Stop work on this immediately;

Section 22, 30-23; well No. 3. Stop work on this immediately;

Section 24, 30-23: well No. 3. Proceed with the drilling of this well;

Section 26, 30-23: well No. 1. As soon as the field Department has completed perforating this well and testing it to see the result obtained, discontinue work thereon, they to advise him when this is done.

Section 30, 30-24: well No. 1. Proceed with the drilling of this well.

The above instructions were discussed at length by the Committee and the matter went over for a week.

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G. Sheridan
Secretary."

Further, at page 395, to and including the word "None"; and, on page 397, a short paragraph, as follows:

"Minutes of Regular Meeting of Executive Committee of Board of Directors of Associated Oil Company.

San Francisco, Cal., August 15, 1911.

"Regular meeting of Executive Committee of Board of Directors of Associated Oil Company, held at the office of the company, Wells Fargo Bldg., San Francisco, Cal., on Tuesday, August 15, 1911.

The Committee convened at eleven o'clock a. m.

Mr. W. F. Herrin, President, in the Chair.

G. Sheridan acted as Secretary of the meeting.

Present: Messrs. W. F. Herrin, W. S. Porter, F. H. Buck, John C. Kirkpatrick and R. P. Schwerin.

Absent: None. [2998]

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The General Manager was directed to report at the next meeting of the Committee the total amount of money spent to date by the Associated Oil Company on lands held by it under lease in Elk Hills.

* * * * * * * * *

G. Sheridan
Secretary."

At page 410, to and including the word "None"; and page 411, the fourth paragraph beginning with the words "The General Manager reported"; and page 412, the second paragraph, is the following:

"Minutes of Regular Meeting of Executive Committee of Board of Directors of Associated Oil Company.

San Francisco, Cal., Sept. 19, 1911.

"Regular meeting of Executive Committee of Board of Directors of Associated Oil Company, held at the office of the company, Wells Fargo Bldg., San Francisco, Cal., on Tuesday, September 19, 1911.

The Committee convened at eleven o'clock a. m.

Mr. W. F. Herrin, President, in the Chair.

G. Sheridan acted as Secretary of the meeting.

Present: Messrs. W. F. Herrin, W. S. Porter, F. H. Buck, R. P. Schwerin and John C. Kirkpatrick.

Absent: None.

* * * * * * * * *

The General Manager reported that he had submitted to our attorney the question of cessation of drilling operations on lands held by the Associated Oil Company in Elk Hills under lease; that he advises that the Picket Bill provides that the rights of any person at the date of any order of withdrawal, which is a bona fide occupant or claimant of oil or gas bearing [2999] lands, and who at the date of the withdrawal is in the diligent prosecution of the work, shall not be affected or impaired by the order 'so long as such occupant or claimant shall continue in diligent prosecution of said work', and in his opinion under that law, in view of the policy of the Government, as exhibited by withdrawals and the laws passed, it is shown to be such that a cessation of drilling operations, without discovery, would destroy the rights of the locator, and that he is under obligation, in order to maintain any rights he has under the Pickett Bill to continue in diligent prosecution of his

work without interruption until final abandonment or discovery and there is, therefore, of course, great danger of losing the rights of this company and all rights of locators by a cessation of work.

The General Manager reported to the Committee that Messrs. Henderson and Bell were in the field at the present time and would return in a few days and upon their return would submit their recommendation as to whether or not we should continue operations on these Elk Hills lands. It was decided by the Committee to await the report of Messrs. Henderson and Bell.

In reference to the producing well on Section 26, Elk Hills, which well is now producing about forty-five barrels of oil per day, the General Manager reported to the Committee that he had submitted to our attorney the question of whether or not the Associated Oil Company should serve notice on the Lessors of the Southwest quarter of said Section to make application for patent under the following provision of our lease from them: 'Upon completion of any well in which oil has been developed, lessors shall make application for patent for land upon which the well is located, and lessee shall pay the necessary expenses incurred in obtaining patent;" that in our attorney's opinion the obligation is on the lessors to make the application for patent and for the lessees to pay the necessary expenses in-[3000]curred in obtaining the same, and that in his opinion the General Manager of the Associated Oil Company should make demand upon the locators under whom we hold set-

ting forth the facts as they exist and request of them that they immediately make application for patent.

The matter was very generally and thoroughly discussed by the Committee and the General Manager was directed to serve notice in accordance with the above.

* * * * * * * * *

G. Sheridan,
Secretary."

Also, page 439, to and including the name "Kirkpatrick"; the paragraph on the same page commencing with "On motion of Mr. Schwerin", all of page 440, ending with the word "approved", as follows:

"Minutes of Regular Meeting of Executive Committee of Board of Directors of Associated Oil Company.

San Francisco, Cal., November 28, 1911.

"Regular meeting of Executive Committee of Board of Directors of Associated Oil Company, held at the office of the company, San Francisco, California, on Tuesday, November 28, 1911.

The meeting convened at eleven o'clock a. m.

In the absence of the President, the First Vice-President, Mr. W. S. Porter, took the Chair, and presided at the meeting.

G. Sheridan acted as Secretary of the meeting.

Present: Messrs. W. S. Porter, F. H. Buck and R. P. Schwerin.

Absent: Messrs. Wm. F. Herrin and John C. Kirkpatrick.

* * * * * * * * *

On motion of Mr. Schwerin, seconded by Mr. Buck and unanimously carried, A. F. E's on the 1911 statement No. 48, were approved with the following exceptions: [3001]

* * * * * * * * *

Elk Hills No. 71, deepening Section 26, Well No. 3, to approximately 3500 ft. to test for oil on Northeast quarter, well now 518 ft. deep	$33,422.53
Estimate — drill new well on S.W. 1-4 of Sec. 26, to prove up this quarter, etc.	45,000.00
Total	$78,422.53
Making the total amount approved	32,897.61

The General Manager reported as follows in reference to recommendation of the Field Department that we deepen well No. 3 on Section 26 at a cost of $33,422.53, drill a well on the S. W. 1-4 of Sec. 26 at a cost of $45,000, and deepen well No. 1 on Sec. 30 at a cost of $12,020.25; 'This well on Section 30 is now 3,836 feet deep having passed through 12 feet of oil stratum at 2,713 feet. We have already expended on the five sections of land which we hold under lease in Elk Hills, $418,000. The Field Department advises that if we forfeit these leases, applying for patents on the 160 acres in Sec. 26 and the 160 acres in Sec. 30, on which we have made discoveries of oil, that we can remove material which will effect a salvage of approximately $100,000, the net result being that we would be in position to ask for patents on 160 acres in Sec. 26, and 160 acres in Sec. 30, which

will be done at once, and doing no further work on any of the other lands. Under those conditions these two wells will have cost us $318,000, provided the salvage is $100,000, as stated above. Our legal department is unable to advise us definitely what the action of the Interior Department will be in regard to these lands, but construes the Pickett Bill to mean that in order to hold lands and eventually acquire patent thereto, we must legitimately carry on the work on each of the twenty quarter sections involved in a manner to make a discovery of oil. This would mean that to be safe we must select these quarter sections at this time on which we deem it advisable to carry on such work. The work on each quarter sec [3002]tion would cost approximately $5,000 per month in order to conform to this construction, and if work is carried on on the eighteen quarter sections on which discovery has not been made, this would mean an expenditure of approximately $90,000 monthly. There are also conflicting mineral claims on these lands owned by other parties, who claim title by reason of discovery of Fullers Earth. These claimants are carrying on work on each quarter section, and have made applications for patent on portions of sections 24 and 30. We would be obliged to contest these applications in the Land Office.

In view of the uncertainty as to the status of our right to obtain patents to any of these lands, even if discovery is made, I recommend that we discontinue work entirely on these lands with the exception of

the pumping of well on Section 26 and the deepening of well on Section 30".

On motion of Mr. Schwerin, seconded by Mr. Buck, and unanimously adopted, the recommendation of the General Manager was approved.

* * * * * * * * *

G. Sheridan
Secretary."

At page 444, to and including the name "Kirkpatrick"; the last paragraph of the same page, and on page 445 through the second paragraph, ending with the word "Manager", follows:

"Minutes of Special Meeting of Executive Committee of Board of Directors of Associated Oil Company.

San Francisco, Cal., December 1, 1911.

"Special Meeting of Executive Committee of Board of Directors of Associated Oil Company, held at the office of the company, Wells Fargo Building, San Francisco, California, on Friday, December 1, 1911.

The meeting convened at 2:30 o'clock p. m. [3003]

In the absence of the President, Mr. W. S. Porter, First Vice-President, took the Chair and presided at the meeting.

G. Sheridan acted as Secretary of the meeting.

Present: Messrs. W. S. Porter, F. H. Buck and R. P. Schwerin.

Absent: Messrs. Wm. F. Herrin and John C. Kirkpatrick.

In reference to the deepening of well on Section

30, 30-24, Elk Hills, $12,020.25 having been appropriated for this purpose by the committee at their last meeting, as appears on A.F.E. Sheet No. 48, Elk Hills No. 72, the General Manager stated that while at the meeting held on November 28th he stated that he was in favor of carrying this well to a depth of 4500 feet as recommended by the Field Department, he had since that time consulted with the Geological Department and they reported that while we might find a producing sand at this depth of 4500 feet, it would not necessarily follow that this same sand would underlie other sections in this district and held by us under lease. The General Manager called the attention of the committee to the fact that we heretofore passed through an oil producing sand in this well at 2700 feet; that the well is now 3800 feet deep, and that the Field Department advise that they can complete the well at this depth without losing any of the hole, so that if in the future it is deemed advisable to carry this well deeper we can do so. The General Manager stated that in view of these reports from the Field and Geological Departments, if it met with the approval of the Executive Committee, he would not authorize the deepening of this well at this time.

On motion of Mr. Buck, seconded by Mr. Schwerin, and unanimously carried, authorization of November 28, 1911, to deepen well on Section 30, 30-24 to a depth of 4500 feet at a cost of $12,020.25 as appears by Elk Hills A. F. E. No. 72 on 1911 statement No. 48, was rescinded, it being understood that this well is

to be completed at its present depth of 3800 feet as re-[3004]commended by the General Manager.

* * * * * * * * * *

G. Sheridan Secretary."

Page 484, to and including the name "F. H. Buck", and through the word "Present"; also page 456, the second paragraph to and including the words "less than $100", as follows:

"Minutes of Regular Meeting of Executive Committee of Board of Directors of Associated Oil Company.

San Francisco, Cal., December 12, 1911.

"Regular meeting of Executive Committee of Board of Directors of Associated Oil Company, held at the office of the company, Wells Fargo Building, San Francisco, Cal., on Tuesday, December 12, 1911.

The Committee convened at eleven o'clock a. m.

In the absence of the President and First Vice-President, Mr. F. H. Buck was elected Chairman of the meeting.

Present: Messrs. F. H. Buck, R. P. Schwerin and John C. Kirkpatrick. Mr. F. B. Henderson, Assistant General Manager, was also present.

* * * * * * * * * *

The Chairman presented letter from the Field Manager dated December 12, 1911, recommending that an appropriation be made of between $900 and $1000 to cover assessment work for the year 1911 as follows:

ELK HILLS

On the N. E. 1-4 of Section 24, T. 30 S., R. 23 E. on

which no actual work has been done during the year 1911, but on which a complete drilling rig was erected and 100 ft. of hole drilled during the year 1910. Recommend that the hole be deepened 100 feet, estimated cost being $500;

On the S. W. 1-4 of Sec. 26, T. 30 S., R. 23 E., on which no work at all has been done. Recommend that a cabin be erected at a cost of not less than $100.

* * * * * * * * *

G. Sheridan
Secretary."

[3005]

Also, page 462, through the name "W. S. Porter"; and the three paragraphs on page 465, ending with the words "this meeting", as follows:

"Minutes of Special Meeting of Executive Committee of Board of Directors of Associated Oil Company.

San Francisco, Cal., December 14, 1911.

"Special Meeting of Executive Committee of Board of Directors of Associated Oil Company, held at the office of the Company, Wells Fargo Bldg., San Francisco, Cal., on Thursday, December 14, 1911.

The Committee convened at ten o'clock a. m.

In the absence of the President and First Vice-President, Mr. F. H. Buck was elected Chairman of the meeting.

G. Sheridan acted as Secretary of the meeting.

Present: Messrs. F. H. Buck, John C. Kirkpatrick and R. P. Schwerin.

Absent: Messrs. Wm. F. Herrin and W. S. Porter.

* * * * * * * * *

Thereupon the Assistant General Manager called the attention of the Committee to letter of the Field Manager dated December 12, which was before them on that date and asking that about $600 be appropriated for annual assessment work on the N.E. 1-4 of Section 24, 30-23 and on the S. W. 1-4 of Section 26, 30-23, Elk Hills, which at that time was not approved by the Committee.

The Assistant General Manager presented written opinion from the legal department wherein Mr. Tauszky advised that in his opinion we may be held liable by the lessors under our leases and advised doing the work for this year.

The matter was discussed by the Committee and on motion of Mr. Kirkpatrick, seconded by Mr. Schwerin, and unanimously carried, the Committee authorized the Assistant General Manager to proceed with the work, as recommended by the Field Manager at an expense [**3006**] of $600, this action being based on the opinion of the legal department and now before this meeting.

* * * * * * * * *

G. Sheridan
Secretary."

Reading from volume 2, of the minutes of the executive committee of the Associated Oil Company, page 69, to and including the word "None"; and page 70, to and including the words "said wells":

"Minutes of Regular Meeting of Executive Committee of Board of Directors of Associated Oil Company.

San Francisco, Cal., June 25, 1912.

"Regular meeting of Executive Committee of Board of Directors of Associated Oil Company, held at the office of the company, room 712 Wells Fargo Building, San Francisco, California, on Tuesday, June 25, 1912.

The meeting convened at eleven o'clock.

Mr. Wm. Sproule, President, in the Chair.

G. Sheridan acted as Secretary of the meeting.

Present: Messrs. Wm. Sproule, W. S. Porter, Wm. F. Herrin, John C. Kirkpatrick and Frank H. Buck.

Absent: None.

* * * * * * * * *

On motion of Mr. Porter seconded by Mr. Buck, the following resolution was unanimously adopted.

Resolved that the General Manager be and he is hereby authorized and directed to instruct the Field Department not to make any further expenditures until otherwise ordered by this committee on any lands in Elk Hills except on the lands in sections 24, 26 and 30, on which wells have been brought in, and to limit the expenditures on said lands to such as may be necessary in the operation of said wells. [3007]

* * * * * * * * *

G. Sheridan

Secretary."

Also, at page 98, to and including the name "Frank H. Buck"; and on page 100, the second, third and

fourth paragraphs, including the word "burdens", as follows:

"Minutes of Regular Meeting of Executive Committee of Board of Directors of Associated Oil Company.

San Francisco, Cal., September 17, 1912.

"Regular meeting of Executive Committee of Board of Directors of Associated Oil Company, held at the office of the company, Room 712 Wells Fargo Building, San Francisco, on Tuesday, September 17, 1912.

The meeting convened at 11 o'clock a. m.

Mr. Wm. Sproule, President, in the Chair.

Mr. P. G. Williams acted as Secretary of the meeting.

Present: Messrs. Wm. Sproule, Wm. F. Herrin and John C. Kirkpatrick and Assistant General Manager F. B. Henderson.

Absent: Messrs. W. S. Porter and Frank H. Buck.

* * * * * * * * *

The Assistant General Manager reports that Attorney Tauszky under date of August 27, 1912, advises that application of F. G. Munzer, et al., for a patent for portion of Sec. 24, 30-23, Elk Hills has been withdrawn without prejudice to right of applicants to file an application for patent to such land or any part thereof hereafter. This application has heretofore been protested by Guy Louthain, et al., and hearing of such protest was conducted in Visalia Land Office the fore part of this year.

Attorney Tauszky discussed with Messrs. Lamberson and Farnsworth, attorneys for protestants, the advisability of filing our application for patent to this land and also advisability of endeavoring to obtain ruling from the Land Dept. on the Munzer ap- [3008] plication, notwithstanding its withdrawal; it was the concensus of opinion that the better policy was to take no action upon these matters at this time. If application for patent is filed by Louthain, et al., the local land office will decline to issue notice on the ground that the land has been withdrawn prior to location by Louthain, et al.

The Munzer application for patent having been dismissed, we only risk an adverse ruling by seeking to have it determined. Therefore concluded to await further affirmative action on the part of the Munzer people and defend against same rather than assume or take any unnecessary risks or burdens.

P. G. Williams,
Secretary."

Volume 2 just referred to, the same as volume 1, contains the minutes of the Executive Committee of the Associated Oil Company; it is in my custody and under my control, and was produced here in court in response to subpoena.

Plaintiff introduced in evidence plaintiff's exhibit 6-QR-LL, being a lease dated March 12, 1910, between G. L. Blosser and others, parties of the first part, and W. O. Maxwell, party of the second part, in and by which the parties of the first part leased for the period of twenty years from date to the party of the

second part the southeast quarter of section 24, township 30 south, range 23 east, M. D. M., for the purpose of excavating, drilling and developing petroleum and other mineral deposits.

Plaintiff introduced in evidence plaintiff's exhibit 6-S-LL, being a supplemental agreement between the same parties above named, relating to the same land, and dated July 20, 1910, modifying the lease last referred to.

Plaintiff introduced in evidence Plaintiff's exhibit 6-T - LL, being original assignment dated November 14, 1910, by [3009] W. O. Maxwell to Associated Oil Company, of lease by G. L. Blosser, et al, to W. O. Maxwell, covering the southwest quarter of Section 24, Township 30 South, Range 23 East, M. D. B. & M.

Plaintiff introduced in evidence plaintiff's exhibit 6-U-LL, being original lease dated the 12th day of March, 1910, for the period of 20 years from its date of the southeast quarter of section 24, 30-23, from G. L. Blosser, et al, to W. O. Maxwell, for the purposes of boring, drilling and sinking for asphaltum, petroleum, natural gas, tar, gypsum, coal or other minerals.

Plaintiff introduced in evidence plaintiff's exhibit 6-V - LL, being copy of agreement between the last-named parties, modifying lease, plaintiff's exhibit 6-U-LL, and dated July 20, 1910.

Plaintiff introduced in evidence plaintiff's exhibit 6-W-LL, being assignment by W. O. Maxwell to Associated Oil Company, of lease, plaintiff's exhibit 6-U-LL, and dated November 14, 1910.

Plaintiff introduced in evidence plaintiff's exhibit 6-X - LL, being original lease dated March 12, 1910, Dan Evenger, et al, to W. O. Maxwell, of northeast quarter of Section 24, 30-23, for the period of 20 years from its date, to mine, excavate, bore, drill and sink for asphaltum, petroleum, natural gas, tar, gypsum, coal and other minerals.

Plaintiff introduced in evidence plaintiff's exhibit 6-Y - LL, being agreement dated July 20, 1910, between the last-named parties, for the modification of lease, plaintiff's exhibit 6-X - LL.

Plaintiff introduced in evidence plaintiff's exhibit 6-Z - LL, being original assignment dated November 14, 1910, by W. O. Maxwell to Associated Oil Company of said last-mentioned lease.

Plaintiff introduced in evidence plaintiff's exhibit [**3010**] 7-A - LL, being original lease dated March 12, 1910, Dan Evenger, et al, to W. O. Maxwell, for the period of 20 years from its date of the northwest quarter of Section 24, Township 30 South, Range 23 East, M. D. B. & M., to mine, excavate, bore, drill and sink for asphaltum, petroleum, natural gas, tar, gypsum, coal or other minerals.

Plaintiff introduced in evidence plaintiff's exhibit 7-B - LL, being original of agreement dated July 6, 1910, between S. M. Johnson, et al, and W. S. Badger, relating to three-fourths interest in the northwest quarter of Section 24, of 30-23, and transferring to W. S. Badger certain lands.

Plaintiff introduced in evidence plaintiff's exhibit 7-C - LL, being original of agreement dated Septem-

ber 12, 1910, between D. Evenger, et al., parties of the first part; S. M. Johnston, et al, parties of the second part; W. O. Maxwell, party of the third part; and W. S. Badger, party of the fourth part, assigning from fourth party to party of the third part lease and agreement between the parties of the second and fourth parts dated July 6, 1910, and providing that the parties of the first and second parts shall have half interest in the lands described as, and profits from, the northwest quarter of section 24, township 30 south, range 23 east, M. D. B. & M.

Plaintiff introduced in evidence plaintiff's exhibit 7-D - LL, being deed of assignment W. O. Maxwell to Associated Oil Company, of the northwest quarter of Section 24, township 30 south, range 23 east, dated November 14, 1910; which said lands were leased to W. O. Maxwell by Dan Evenger, et al, March 12, 1910.

Plaintiff introduced in evidence plaintiff's exhibits 7-E - LL, to 7-K - LL, inclusive, being powers of attorney as follows, respectively:

J. M. Dover and Margaret C. Dover, to J. F. Dover, — to sell and transfer any lands in Kern County, and shares of stock in [**3011**] Section Twenty-Five Oil Company, dated July 9, 1907;

W. A. McNeil to James W. Riggle, full power to handle any interest in township 30, range 24 East, and township 30, range 23 East, M. D. B. & M., dated February 12, 1910.

J. W. Heard to C. C. Painter, full power to act in any manner relative to lease and supplemental agreement dated March 12, 1910 covering north ½ of sec-

tion 24, and north ½ of section 26, township 30 South, range 23 East, M. D. B & M., executed March 10, 1910.

D. R. Evenger to W. Rhyne, to sign leases to W. O. Maxwell on lands in section 24, township 30 South, range 23 east, M. D. B. & M., dated March 25, 1910.

F. B. Wilson, sometimes known as B. F. Wilson, to W. S. Lierly, full power to locate, relocate, grant, bargain, sell, remise, release, convey and quitclaim for said Wilson, on lands in sections:

30 Township 30 Range 24
22 " 30 " 23
26 " 22 " 24
26 " 30 " 23
22 " 30 " 24 Dated June 2, 1910.

John D. Cage, Miss Emma Cage, W. F. Phillips, Mrs. Lenora Cage, Richard Dougherty, also known as Richard Doherty, J. L. Reed and J. A. Ross, to J. E. Baker, power to lease, let, demise, convey and contract for development for mineral in sections 28 and 30, township 30 South, range 24 east, M.D.B.& M., in Kern County, California, dated September 8, 1909.

Mrs. H. J. Dover to H. J. Dover, her husband, full power (general), dated March 16, 1910.

(The witness continuing, testified substantially as follows:)

These instruments, leases, memorandum of agreement, and powers of attorney, have been in my custody as secretary of the Associated Oil Company.

In 1910 a bond issue of twenty-five million was authorized, of which I should say more than fifty

percent was sold to the [**3012**] Southern Pacific Company; the original acquisition of them will show by my books, but I could not tell who has them now; I have a memorandum here of the issue of 1902, 1910, and 1909; as I have previously testified, the 206,268 shares of stock held by the Southern Pacific Company was transferred to it from W. F. Herrin.

Direct Examination: (resumed) November 29, 1913; San Francisco.

Since the last session I have procured from the records of the Associated Oil Company data as to the executive committee of 1909; they were W. S. Porter, F. H. Buck, W. F. Herrin, J. A. Chanslor, and Burton E. Green; I think Mr. Porter was Chairman.

Upon further reference to the records, I find that the number of shares held by Mr. Herrin on January 1st, 1905, was 39,284.92, which was about 20 per cent of the total issue; the number of shares then issued was 211,384.04; the total issue of 1903, on January 1st, was 184,223.17, of which none had been issued to the Southern Pacific Company, or any person, firm or corporation on its behalf; the total issue of stock of Associated Oil Company on January 1, 1904, was 190,847.34, of which 40,299 shares stood in the name of the Southern Pacific Company; none at that time was in the name of any other person for the Southern Pacific; in 1905, of the 211,384.04 shares none stood in the name of the Southern Pacific Company; but W. F. Herrin, Trustee, had 39,284.92; On January 1, 1906, the total amount of capital stock issued

was 228,384.04, at which time there were 148,684.92 shares in the name of W. F. Herrin, Trustee.

The records show that W. F. Herrin obtained the amount of stock represented by the difference between what he held January 1, 1905, and what he appears to have held January 1st, 1906, as follows: 83,100 shares from the Union Trust Company; 26,300 shares from C. H. Markham; I am not positive from whom the Union Trust Company of San Francisco obtained its stock, but I think it was [**3013**] originally issued by the trustees, — in other words, that the Union Trust Company was the first that held it; C. H. Markham obtained the 26,300 shares from Union Trust Company.

On January 1, 1907, the total amount of outstanding capital stock of the Associated Oil Company was 297,369.96; there was none in the name of the Southern Pacific Company; W. F. Herrin Trustee, held 148,684.92; on January 1st, 1908, the total amount of outstanding stock was 297,369.96, of which there stood in the name of W. F. Herrin, Trustee, 206,268 shares, according to my memorandum, but I cannot reconcile this with the total outstanding; I think the total capital stock had been issued, — the full 400,000 shares, because Mr. Herrin did not hold as trustee more than 200,000 shares until the capital stock was all issued, and I think the memorandum must represent the year 1909, instead of 1908; I will prepare a tabulated statement and present it at a later session.

In 1908 none of the stock stood in the name of the Southern Pacific Company; in 1909 my memorandum

shows 400,000 shares, total issue, and 206,971 in the name of the Southern Pacific, but none held by W. F. Herrin, as trustee; in 1910 the total amount issued was 400,000 shares; none stood in the name of W. F. Herrin as trustee; the Southern Pacific Company held 200,690 shares, and the same applies to the year 1911; in 1912, January 1, the total issued stock was 400,000 shares, of which 200,685 was in the name of the Southern Pacific Company; and in 1913, 400,000 shares, total issue, with 200,685 in the name of the Southern Pacific Company.

Of the bond issues concerning which I was to testify at this time, I have ascertained that there were two issues by Associated Oil Company; one in 1902, an authorized issue of five million; and the next issue was January 15, 1910, twenty-five million; of this latter issue the Southern Pacific Company received **[3014]** twelve million one hundred four thousand; of this authorized issue something more than thirteen million was actually issued; I am unable to say the exact amount; my recollection is that it was 13,685,-000; there have been more issued, so that now there are 13,685,000 and as to the exact amount I shall ascertain and report; Of the original issue the trustee was Union Trust Company of San Francisco, to the best of my recollection, and subsequently transferred to Southern California Trust Company; the second issue, the Union Trust Company of San Francisco; the principal office of the Southern California Trust Company is at Los Angeles.

Direct Examination (resumed); December 2, 1913.
San Francisco.

I have prepared in tabulated form a memorandum of the stock in the Associated Oil Company held by the Southern Pacific Company, showing from whom it was acquired, for the several years from 1904 to the present time; I examined the original books of the records of the Associated Oil Company for the purpose of ascertaining these facts; on April 5, 1904 the Southern Pacific Company acquired 4,029,900 shares of the capital stock of the Associated Oil Company, of a par value of one dollar each in the San Joaquin Oil Company and the Reed Crude Oil Company; at that date the total outstanding amount of capital stock of that company was 19,086,623 shares; on December 1, 1906, the Southern Pacific Company held 14,868,492 shares of Associated Oil Company stock; in addition to the amount before testified as having been acquired from the San Joaquin Oil Company and Reed Crude Oil Company, they acquired from the Associated Oil Company 10,838,592 shares, of the par value of one dollar each; those two make up the total of 14,868,492 shares; on that date the total amount of outstanding stock of Associated Oil Company was 29,736,996 shares, of the par value of one dollar; that figures out as lacking six shares of one half of the total outstanding stock; from the records I know that at that time the [**3015**] Southern Pacific Company did not through control of seven or eight other shares of the stock, control the Associated Oil Company; On October 1, 1908, the total amount

of stock of the Associated Oil Company owned by the Southern Pacific Company was 199,981.22 shares, of the par value of one hundred dollars each; the difference between the amount held on that date and that held on December 1st, 1906, was acquired from the Associated Oil Company; the amount acquired by the Southern Pacific Company from the Associated Oil Company was 51,296.30 shares, of the par value of one hundred dollars each; on October 1, 1908 the total amount of outstanding stock of the Associated Oil Company was 400,000 shares, of the par value of $100.; on October 9, 1908, the Southern Pacific Company acquired from the Associated Oil Company 6,286.78 shares, of the par value of $100 each, making a total of 206,268 shares; On November 20, 1909, the Southern Pacific acquired 703 shares, of the par value of $100 each, from the Associated Oil Company; there was still a total outstanding of 400,000 shares; this was the total authorized issue, and there has been no change since that time; there were no further acquisitions of stock by the Southern Pacific Company; On August 31, 1910, 6,281 shares of the par value of one hundred dollars each, were transferred to Mrs. M. W. Harriman, leaving in the hands of the Southern Pacific Company 200,690 shares of the par value of one hundred dollars per share; on May 10, 1912, five shares were transferred to Mr. Sproule, — William Sproule, President of the Associated Oil Company; he was president also of the Southern Pacific Company, I understand, on May 10, 1912; the Southern Pacific Company now

holds 200,685 shares of the Associated Oil Company; from my books, the Southern Pacific Company acquired a majority of the capital stock of the Associated Oil Company on October 9, 1908, and has since had control by a majority of the stock ownership, without interruption; the paper memorandum which I hand you is an abstract made by myself from the books and [**3016**] records of the Associated Oil Company; I have verified it and am satisfied that it is correct.

(Abstract memorandum consisting of the foregoing data introduced in evidence, and marked Plaintiff's Exhibit 10-M - LL.)

Mr. Dumble first acquired stock in the Associated Oil Company February 28, 1910, five shares, par value one hundred dollars each, transferred from the Associated Oil Company to E. T. Dumble, and held by him until July 24, 1911; the by-laws require that a director must hold stock, at least five shares of stock; Mr. Dumble was a director; I think in 1910 the election of directors was held on the third Tuesday of February; this is a complete record of Mr. Dumble's stock from the original of the Associated Oil Company; to the best of my recollection at the present time, the by-laws and rules of the Associated Oil Company required a director to hold at least five shares of stock; I did not make this memorandum myself, and cannot explain at the present time why it does not show stock in his name during the years 1905 to 1909, if he was then a director; he may have had stock, and yet there be a failure to transfer it

to his name; that is possible; I am unable to explain the discrepancy at this time; this information is abstracted from the stock journal and ledger; I do not think they are consecutive for each year, and have no idea whether there is more than one stock journal or ledger; I think there is more, but whether there are five, or fifteen, I cannot say; I believe in some cases there is a dual book, one in the forepart for the forepart for the journal, and the latter part is for the ledger; it may be in later years, when there were so many accounts, that they have separated the journal and ledger; that is the complete record of stock transfers, except the certificates themselves; to the best of my knowledge and belief these stock journals and ledger accounts show the ownership and source of title of capital stock of the Associated held by E. T. Dumble, W. F. Herrin, and [**3017**] the other directors for all the years therein represented.

I have here a tabulated memorandum of the bond matter, for the years 1902 and 1910, as regards the bonds owned by the Southern Pacific Company, as requested; the authorized issue in 1902 was five million dollars, of which amount 750,000 went to the Southern Pacific Company, 750 bonds of $1000 each; that is, they purchased on January 17, 1907, 90 bonds; February 8th, 1907, 450; March 2, 1907, 210; they have not matured; the authorized issue in 1910 was twenty-five million, of which to date the Southern Pacific Company acquired 12,104 bonds, of a thousand dollars each; the Southern Pacific Company did not own any other bonds but that, through the own-

ership of other corporations; 450 bonds went to the Pioneer Midway Oil Company; 760 to the Carlton Investment Company; 327 are now held by the Associated; there has been a total of 2403 issued to the Associated; the total amount issued all together was 13,641; now, of the 1902 issue there are 2,044 outstanding at present, of one thousand dollars each; this memorandum was prepared from the books of the company, and are correct; when the Southern Pacific Company purchased of the issue of 1910, ten thousand were purchased at that time, and some of these others were purchased since.

The par value of the capital stock of the Associated Oil Company was changed from one dollar to a hundred dollars, but I do not know the date; the capital stock of the company has not been increased or decreased since its organization.

Direct Examination (resumed): December 4, 1911; San Francisco.

I now produce an abstact of the title of the stock in Associated Oil Company held by E. T. Dumble, as taken from the original books and records of the company; it was prepared under my direction, and so far as I know it is absolutely correct; to explain: February 25, 1905, what was then a share of stock of the par value of one dollar was transferred from the name of [**3018**] C. H. Markham to the name of E. T. Dumble; on March 7, 1907, there was a share and a tenth transferred from Dumble and Porter, et al, trustee; to Mr. Dumble, I mean; On November 1, 1909, there was transferred from the name of the As-

sociated Oil Company one share; on February 28, 1910, there was transferred from the Associated Oil Company five shares; as an offset to these certificates transferred to Mr. Dumble, the following were cancelled: On March 7, 1907, to E. T. Dumble, one-tenth share, or one share of the par value of one hundred dollars; April 15, 1910, to the Associated Oil Company, one and one-hundredth shares; November 22, 1910, to the Associated Oil Company, one share; July 24, 1911, to A. D. McDonald, five shares, of the par value of one hundred dollars; these were qualifying shares — shares issued to qualify Mr. Dumble as a director; he now has no stock whatever; at the present time the by-laws require that a director shall have at least five shares in order to qualify; yet I wish to qualify that, as I do not know whether the by-laws at the present time require one share or five shares to qualify; the name of A. D. McDonald appears on the tabulated statement under the word "canceled" because the shares of stock were transferred to the name of A. D. McDonald.

The statement last referred to was offered in evidence and marked Plaintiff's Exhibit 11-G - LL, and is as follows:

"ABSTRACT OF TITLE OF STOCK IN ASSOCIATED OIL COMPANY HELD BY E. T. DUMBLE.

- - - - - - - - - - - - -

ISSUED

Date	*From*	*Cert. No.*	*Shares*
2/25/05	C. H. Markham	1332	.01

3/7/07	(E. T. Dumble &		
	(W. S. Porter, et al	1350	1.01
	(Trustee		
11/1/09	Associated Oil Co.	A-22317	1.
			2.02
2/28/10	Associated Oil Co.	D-7038	5

[3019]

CANCELLED

Date	*To*	*Cert. No.*	*Shares*
3/7/07	E. T. Dumble	1332	.01
4/15/10	Associated Oil Co.	1350	1.01
11/22/10	Associated Oil Co.	A-22317	1.
			2.02
7/24/11	A. D. McDonald	D-7038	5 "

The next is a transcript of the ledgers — stock records of the Associated Oil Company, showing the shares of stock transferred to the name of W. F. Herrin, Trustee, and the shares of stock transferred from W. F. Herrin, Trustee; my record shows from whom they were transferred; this was prepared under my direction, and to the best of my knowledge and belief is correct.

The statement last referred to and offered in evidence was marked Plaintiff's Exhibit 11-H - LL, and is as follows:

"ABSTRACT OF TITLE OF STOCK IN ASSOCIATED OIL COMPANY HELD BY W. F. HERRIN — TRUSTEE

ISSUED

Date	*From*	*Cert. No.*	*Shares*
12/1/06	Union Trust Co. of S. F. Trustee	C-12389	148,684.
"	Wm. F. Herrin	C-12390	.92
10/1/08	C. H. Markham	C-13918	.30
"	Treasury Stock	C-13919	51,296.
10/9/08		C-13974	6,286.
"		C-13975	.78
			206,268.00
11/20/09	W. S. Porter, et al Tr.	D-2194	6
"	Southern Pac. Co.	F-2084	206,971
			206,977

CANCELLED

Date	*To*	*Cert. No.*	*Shares*
11/20/09	Southern Pac. Co.	C-12389	148,684.
"	" "	C-13974	6,286.
"	" "	C-13919	51,296.
"	" "	C-13975	.78
"	" "	C-13918	.30
"	" "	C-12390	.92
			206,268.00

8/31/10	Southern Pacific Co.	F-2084	206,971
	Mrs. M. W. Harriman	D-2194	6
			206,977

To explain, as appears from the foregoing, on December [**3020**] 1st, 1906, there was transferred from Union Trust Company of San Francisco, Trustee, 148,694 shares, par value $100; and on the same date, from W. F. Herrin, ninety-two hundredths of a share, to W. F. Herrin, Trustee; October 1st, 1908, C. H. Markham, thirty hundredths of a share; on the same date, from treasury stock, which means A. O. Company — 51,296 shares; On October 9, 1908, from the same source, 6,286 shares and decimal 78; making a total of 206,268 shares; on November 20, 1909, there was transferred from W. S. Porter, et al, 6 shares; on the same date from Southern Pacific Company, 206,971, making a total of 206,977 shares.

In explanation of the cancellations, on November 20, 1909, covered by several certificates there was transferred to the Southern Pacific Company 206,268 shares; which means that on that date there was transferred to the Southern Pacific Company all the certificates of stock which were issued to W. F. Herrin as trustee down to October 9, 1908. August 31, 1910, to the Southern Pacific Company 206,971 shares; to Mrs. M. W. Harriman, shares.

The paper now shown me is the account with the Union Trust Company of San Francisco, as trustee, of the shares of A. O. Company stock acquired by them and transferred to other parties for their ac-

count; this was prepared under my supervision from the books and records of the Associated Oil Company, and so far as I know it is correct.

Said statement was introduced in evidence, marked Plaintiff's Exhibit 11-I - LL, and is as follows:

"ABSTRACT OF TITLE OF STOCK IN ASSOCIATED OIL COMPANY HELD BY UNION TRUST COMPANY OF SAN FRANCISCO, TRUSTEE.

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ISSUED

Date	*From*	*Cert. No.*	*Shares*
1/1/05	On hand	1570 to 1610 and 3465	577,876
1/1/05 to 12/20/05)	J. E. Foulds	1611 to 2400	7,900,000
			8,477,876
[3021]			
9/23/08	Union Trust Co. of S. F., Trustee (Originally from San Joaquin Oil & Dev. Co. 194)	C-13863	1,678
9/23/08	Union Trust Co. of S. F., Trustee	C-13867	.76
			1,678.76

CANCELLED

Date	*To*	*Cert. No.*	*Shares*
12/1/06	W. F. Herrin, Tr.	1570 to 2400	8,310,000

9/23/08	Union Trust Co. S. F. Trustee	3465	167,876
			8,477,876
12/13/09	O. Scribner	C-13863	1,678
12/13/09	O. Scribner	C-13867	.76
			1,678.76

Explaining the last exhibit, on January 1, 1905, there stood in the name of the Union Trust Company of San Francisco, Trustee, 577,876 shares of A. O. Company's stock of the par value of one dollar each; between the dates of January 1, 1905, and December 20, 1905, there was transferred from the name of J. E. Foulds, 7,900,000 shares, of the par value of one dollar each, to the Union Trust Company; September 23, 1908, there was transferred from the Union Trust Company of San Francisco, Trustee, 1,678 shares, of the par value of one hundred dollars each; on the same date, from the same party, seventy-six hundredths of one share; the last two lots were transferred by the Union Trust Company to itself.

In explanation of the cancellations, on December 1, 1906, there was cancelled and transferred to the name of Wm. F. Herrin, Trustee, 8,310,000 shares of A. O. Company stock, of the par value of one dollar each; September 23, 1908, transferred to Union Trust Company of San Francisco, Trustee, 167,876 of said stock, par value one dollar; December 13, 1909, transferred to O. Scribner, 1,678.76 shares, par value one hundred dollars each.

The Union Trust Company of San Francisco, Trustee, holds none of the stock now. [3022]

Now I produce the abstract of title of the stock held by Union Trust Company of San Francisco. Said statement was introduced in evidence, marked Plaintiff's Exhibit 11-J - LL, and is as follows:

ABSTRACT OF TITLE OF STOCK IN ASSOCIATED OIL COMPANY HELD BY UNION TRUST COMPANY OF SAN FRANCISCO.

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ISSUED

Date	*From*	*Cert. No.*	*Shares*
1/1/05	Union Trust Co. of S. F.	4316	392,639

CANCELLED

Date	*To*	*Cert. No.*	*Shares*
11/6/06	W. S. Porter	4316	392,639

The next one is the individual account of W. F. Herrin abstracted, and was prepared under my supervision from the books and records of the Associated Oil Company; it is correct to the best of my knowledge and belief.

Said statement was introduced in evidence, marked Plaintiff's Exhibit 11-K - LL, and is as follows:

ABSTRACT OF TITLE OF STOCK IN THE ASSOCIATED OIL COMPANY BY WM. F. HERRIN.

ISSUED

Date	*From*	*Cert. No.*	*Shares*
1/1/05	On hand	1330, 4414 & 4661	3,089,901

12/20/05	Frank H. Buck	9538	838,592
3/7/07	Wm. F. Herrin & W. S. Porter, et al, Tr.	1349	101
			3,928,594
11/18/09	W. S. Porter, et al Trustee	F-2035	750
12/13/09	W. S. Porter, et al Trustee	F-2106	3,065
9/6/10	Wm. F. Herrin	F-10085	3,815

CANCELLED

Date	*To*	*Cert. No.*	*Shares*
12/1/06	Wm. F. Herrin, Tr.	4414	690,000
12/1/06	do.	4661	2,399,900
12/1/06	do.	9538	838,592
3/7/07	Wm. F. Herrin	1330	1
4/15/10	Associated Oil Co.	1349	101
			3,928,594
9/6/13	Wm. F. Herrin	F-2106	3,065
"	do.	F-2035	750

[3023]

the foregoing exhibit shows that on January 1, 1905, there was standing in the name of W. F. Herrin 3,089,901 shares of Associated Oil Company's stock, of the par value of one dollar each; On December 20, 1905, there was transferred from the name of Frank H. Buck, 838,592 shares, of the par value of one dollar; March 7, 1907, transferred to Wm. F. Herrin, W. S. Porter, et al, Trustees, 101 shares, of

the par value of one dollar; November 18, 1909, transferred from W. S. Porter, et al, Trustees, 750 shares, of the par value of one hundred dollars each; December 13, 1909, from the same party, 3,065 shares, and September 6, 1910, from W. F. Herrin, 3,815 shares; I cannot at this time say who were represented by the "et al"; the probabilities are that the certificates show, and that in transcribing it to the ledger that term was used; I did not take this off the record myself, nor look at the books; I have not the certificates with me.

The next is the abstract from the ledger of the Associated Oil Company showing the number of shares of the company's stock acquired by C. H. Markham, and to whom they were transferred when he disposed of them; it is prepared in the same way as the others, and is correct so far as I know.

Said statement was introduced in evidence, marked Plaintiff's Exhibit 11-L - LL, and is as follows:

ABSTRACT OF TITLE OF STOCK IN ASSOCIATED OIL COMPANY HELD BY C. H. MARKHAM

ISSUED

Date	*From*	*Cert. No.*	*Shares*
1/1/05	On hand	1331, 4415 & 4660	2,630,001
			2,630,001

CANCELLED

Date	*To*	*Cert. No.*	*Shares*
2/25/05	E. T. Dumble	1331	1

12/1/06	Wm. F. Herrin, Tr.	4415	680,000
"	do.	4660	1,950,000
			2,630,001

Exhibit 11-L is thus explained: On January 1, 1905, there was standing in the name of C. H. Markham 2,630,001 shares of the par value of one dollar each; February 25, 1905, there was [**3024**] transferred to the name of E. T. Dumble one share; December 1, 1906, to Wm. F. Herrin, Trustee, 2,630,000 shares.

The statement now shown me is a transcript of the ledger showing the acquisition of Associated Oil Company stock by R. P. Schwerin, and the disposition of same so far as it is disposed of; it was prepared in like manner, under my supervision, and is correct.

The statement last mentioned was introduced in evidence, marked Plaintiff's Exhibit 11-M - LL, and is as follows:

ABSTRACT OF TITLE OF STOCK IN ASSOCIATED OIL COMPANY HELD BY R. P. SCHWERIN

ISSUED

Date	*From*	*Cert. No.*	*Shares*
11/13/06 to)			
11/27/06)	W. S. Porter)	A-12416-12435	
	R. P. Schwerin)	A-12746-12765	2,000
10/1/08	Treasury stock	C-14147	345
			2,345

12/2/09	W. S. Porter, et al,	D-2763-2782	1,000
7/7/10	R. P. Schwerin,	D-13174-13193	1,000

CANCELLED

Date	*To*	*Cert. No.*	*Shares*
11/27/06	R. P. Schwerin	A-12416-12435	1,000
6/29/09	Mrs. R. P. Schwerin	C-14147	345
12/2/09	R. P. Schwerin	A-12746-12765	1,000
			2,345
7/7/10	R. P. Schwerin	D-2763-2782	1,000

Showing that on November 13, and 27, 1906, there were two certificates issued, one from W. S. Porter for 1000 shares and one from R. P. Schwerin, making a total of 2,000 shares; October 1, 1908, from the A. O. Company, treasury stock, 345 shares; December 2, 1909, W. S. Porter, et al, Trustees, 1,000 shares; July 7, 1910, R. P. Schwerin, 1,000 shares; November 27, 1906 there was transferred from Mr. Schwerin's name, to R. P. Schwerin, 1,000 shares; June 29, Mrs. R. P. Schwerin, 345 shares; December 2, 1909, R. P. Schwerin, 1,000 shares; July 7, 1910, R. P. Schwerin, 1,000 shares. [**3025**]

The next one is a transcript of the ledger account, the shares of stock of A. O. Company acquired by Paul Shoup and parties to whom said shares were transferred subsequently; it was prepared the same as the other abstracts, and is correct as far as I know.

Said statement was introduced in evidence, marked Plaintiff's Exhibit 11-N - LL, and is as follows:

"ABSTRACT OF TITLE OF STOCK IN ASSOCIATED OIL COMPANY HELD BY PAUL SHOUP

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ISSUED

Date	*From*	*Cert. No.*	*Shares*
2/9/10	Guy V. Shoup	D-6311	20
1/10/11	Paul Shoup	D-14595	10
"	"	D-14596	10
			40

Upon telephonic advice from the witness (through Assistant Secretary Coppage, of the Associated Oil Company) that the above footing should read "40" instead of "30", I have, by agreement and consent of counsel, corrected the same to read, "40".

Leo Longley, Special Examiner.

CANCELLED

Date	*To*	*Cert. No.*	*Shares*
1/10/11	Paul Shoup	D-6311	20
2/16/11	Earnest D. Mandenhall	D-14595	10
			30

In explanation of the foregoing, on February 9, 1910, there was transferred to the name of Guy V. Shoup, 20 shares; on January 10, 1911, from Paul Shoup, 20 shares; January 10, 1911, to Paul Shoup 20 shares; February 16, 1911, to Earnest D. Mendenhall, 10 shares. That is not right; according to this paper, 10 shares; he is not now a director ,and I think

has not been since a year ago, or more; it is my understanding that he sold all his stock at that time; I will check this afterwards and telephone the Examiner, but there is not any necessity of correcting it, except the "40", it totals 40.

I am now shown a transcript of the ledger account with J. C. Kirkpatrick, showing the acquisition of shares of A .O. Company stock, and the disposition of same so far as it has been disposed of. It was prepared in the same manner as the others. [**3026**]

The statement last referred to was offered in evidence and marked Plaintiff's Exhibit 11-0 - LL, and is as follows:

ABSTRACT OF TITLE OF STOCK IN ASSOCIATED OIL COMPANY HELD BY J. C. KIRKPATRICK

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ISSUED

Date	*From*	*Cert. No.*	*Shares*
2/8/10	Fred S. Knight & Co.	D-6290	15
6/8/10	(Henry S. Manheim		
	(J. Barth & Co.	E-10075	100
6/7/11	John C. Kirkpatrick	D-16313	60
2/13/12	John C. Kirkpatrick	D-17805	10
8/1/12	(J. C. Wilson		
	Harris Winthrop & Co.	E-10967-10971	500
12/17/12	do.	E-11364-11366	300
			985

CANCELLED

Date	*To*	*Cert. No.*	*Shares*
6/7/11	(J. C. Kirkpatrick		
	(Obadiah Rich	E-10075	100
2/13/12	(J. C. Kirkpatrick		
	(Obadiah Rich	D-16313	60
12/14/12	(Milton A. Bremer	E-10969	100
	(Albert L. Ehrman		
12/14/12	(Henry S. Manheim		
	(Carl Raiss & Co.	E-10967	100
12/14/12	(J. Barth & Co.		
	(Sutro & Co.	E-10968	100
			460

J. Barth & Company, J. C. Wilson, Carl Raiss & Co., I think are stock brokers, and I think Harris Winthrop & Company are New York people, but I do not know the others, outside of J. C. Kirkpatrick.

The paper now shown me is an abstract of title of the stock held by Rudolph Herold, Jr., from time to time, and prepared in the same way as the others; the other parties named I do not know, except J. C. Wilson, who I understand is a broker.

Said statement was introduced in evidence, marked Plaintiff's Exhibit 11-P-LL, and is as follows: [3027]

"ABSTRACT OF TITLE OF STOCK IN ASSOCIATED OIL COMPANY HELD BY RUDOLPH HERALD, JR.

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ISSUED

Date	*From*	*Cert. No.*	*Shares*
2/1/09	David S. Bachman	A-20730	20
"	David S. Bachman, Tr.	A-20731	20
9/14/09	J. C. Wilson, Tr.	A-21989	25
"	do.	A-21990	15
			80
11/18/09	W. S. Porter, et al, Tr.	D-2214 to 2216	100
11/24/09	do.	D-2331 & 32	50
6/7/10	Rudolph Herold, Jr.	D-11137 to 11141	150
4/6/12	J. C. Wilson	E-11100 to 11102	300
"	do.	D-18344 to 18346	50
			650

CANCELLED

Date	*To*	*Cert. No.*	*Shares*
11/18/09	Rudolph Herold, Jr.	A-20730	20
	do.	A-20731	20
	do.	A-21989	25
	do.	A-21990	15
			80
6/7/10	Rudolph Herold, Jr.	D-2331 & 2332	50
	do.	D-2214 - 2216	100
			150

The paper which you now hold is the abstract of title of the stock of F. G. Drum, also prepared in the

same way, and is correct; it shows that on March 19, 1912, he acquired a hundred shares from Sutro & Company.

The statement last referred to was offered in evidence, marked Plaintiff's Exhibit 11-Q - LL, and is as follows:

ABSTRACT OF TITLE OF STOCK IN ASSOCIATED OIL COMPANY HELD BY F. G. DRUM

- - - - - - - - - - - - -

ISSUED

Date	*From*	*Cert. No.*	*Shares*
3/19/12	Sutro & Co.	E-10911	100

CANCELLED

Date	*To*	*Cert. No.*	*Shares*

To clear up the record as to my testimony the other day, regarding the discrepancy referring to Mr. Dumble, the original memorandum was prepared after reference to the indexes of the several ledgers; we have since gone through the ledgers, account [3028] for account, and found the additional transfers and acquisition, as reflected by this statement, the amended statement.

The defendants thereupon moved that the entire testimony here given by this witness be stricken from the record, on the ground that it is not relevant to any of the issues in this case, inasmuch as it does not tend to prove or establish or support any of the allegations of the complaint; and on the ground that it is not rebuttal, inasmuch as it does not deny, answer,

meet, explain or apply to any of the testimony introduced in behalf of the defendants in this case.

All of said testimony was duly objected to by counsel for defendants upon the grounds that the same is irrelevant and immaterial; that it does not rebut any testimony introduced on behalf of defendants; that it is hearsay, relates to transactions between persons other than the defendants in this case, but not questioning the accuracy of reports so far as the Associated Oil Company is concerned; upon the further ground that it is not the best evidence so far as concerns the books of said company.

L. E. GREENE

Witness called on behalf of the Plaintiff

November 29, 1913.

In Rebuttal.

Direct Examination.

I reside in Oakland, and am in business in San Francisco, as trust officer of the Union Trust Company of San Francisco; that is a trust company, organized under the laws of California, transacting a banking business and a trust business; I appear in response to a subpoena duces tecum to produce certain papers left with the Trust Company on behalf of the Associated Oil Company and other persons, and I have those papers with me.

A letter dated April 10, 1911, from Mr. O. Scribner, [3029] introducing Mr. W. S. Badger, was received by us; This letter I now produce; I have seen Mr. Scribner write; that is his signature; I feel sure that

the date of this letter was the first time that the Trust Company, or any of its officers, was notified that certain documents would be placed in escrow with the Trust Company;

Plaintiff introduced in evidence Plaintiff's Exhibit 7-L - LL, being a letter dated April 10, 1911, written by O. Scribner, Assistant General Manager of the Associated Oil Company, to Charles J. Deering, San Francisco, California, introducing W. S. Badger, and stating that Mr. Badger would deposit certain documents in escrow and take a receipt for them.

I was not acquainted with Mr. Badger, except by reason of that letter; in accordance with that letter the Union Trust Company received and accepted certain documents brought to it by Mr. Badger to be placed in escrow, and I feel sure that he was given a receipt; we divided the escrow into four parts, represent- each quarter section of Section 30, Township 30, Range 24, and marked them "Escrow 399", "Escrow 400", "Escrow 401", and "Escrow 402"; The first package that I produce contains the escrow papers embracing the northwest quarter of said Section 30; the first paper handed me from this package is the letter of instructions received from Mr. Badger as attorney-in-fact for the persons named.

Plaintiff offered in evidence Plaintiff's Exhibit 7-M - LL, being escrow instructions concerning the title papers to the northwest quarter of Section 30, Township 30 South, Range 24 East, M. D. B. & M.

The paper now shown me is a carbon copy, except as to my signature, which is missing, of a letter which

I wrote to the Associated Oil Company June 1, 1911, showing receipt of a paper, and I signed "Trust Officer" on behalf of Union Trust Company.

Said letter was introduced in evidence, marked Plain- [3030] tiff's Exhibit 7-N - LL, and is as follows:

"Escrow 399

Associated Oil Company, Wells Fargo Building, San Francisco, Cal.

Dear Sirs:

Attention of Miss G. Sheridan Secretary.

We have your favor of the 26th ultimo, enclosing agreement between J. E. Baker, and others, parties of the first part, and W. S. Badger, party of the second part, dated April 25th, 1911, notifying our escrows Nos. 399-402 inclusive.

Yours truly

.....

G.K Trust Officer."

I identify the next paper as a letter received by the Union Trust Company of San Francisco from the Associated Oil Company, transmitting the modification which I mentioned awhile ago as Plaintiff's Exhibit 7-N - LL which was in reply to this.

Plaintiff introduced in evidence Plaintiff's Exhibit 7-O - LL, being a letter dated May 26, 1911, from G. Sheridan, Secretary of the Associated Oil Company to the Union Trust Company of San Francisco, concerning the instructions mentioned, and directing amendment of the same.

Plaintiff introduced in evidence escrow instruc-

tions modifying the above-mentioned instructions, and the same were marked Plaintiff's Exhibit 7-P - LL.

In connection with said last-named exhibit, plaintiff introduced in evidence assignment, dated May 26, 1911, from W. S. Badger, transferring to the Associated Oil Company the contract and lease dated April 26, 1911, and the original contract of June 9, 1910. This was marked Plaintiff's Exhibit 7-P - LL.

The papers you have in your hand constitute eight deeds, John D. Cage to W. F. Herrin, dated July 1, 1910; Miss Emma Cage to W. S. Porter, July 1, 1910; W. F. Phillips to J. C. Kirkpatrick, July 1, 1910; Mrs. Lenora Cage to R. P. Schwerin, July 1, 1910; Richard Dougherty to O. Scribner, July 1, 1910; J. L. Reed to Paul Shoup, July 1, 1910; J. A. Ross to Rudolph Herold, Jr., July 1, 1910; and J. E. Baker to Frank H. Buck, July 1, 1910, which [**3031**] are the several papers referred to in the escrow papers just introduced; they are the original papers handed to the Union Trust Company by W. S. Badger on behalf of the parties he represented, and were so accepted and received by the Union Trust Company; Of the several grantees named I know Mr. Herrin and Mr. Porter; Mr. Schwerin I have seen, but do not know him personally; Mr. Kirkpatrick I have no personal acquaintance with; Mr. Scribner I know very well, also Mr. Shoup; I think I have met Mr. Buck, but am not sure, and I don't know Mr. Herold; Mr. Herrin is the same W. F. Herrin who is general counsel of the Southern Pacific Company, I assume; and he is the

same Herrin who is president of the Associated Oil Company.

Plaintiff introduced in evidence a deed dated July 1, 1910, John D. Cage to W. F. Herrin, and marked Plaintiff's Exhibit 7-Q - LL, of the northwest quarter of Section 30, Township 30 South, Range 24 East, M. D. B. & M.

Plaintiff introduced in evidence Plaintiff's Exhibit 7-R - LL, being a deed from Emma Cage to W. S. Porter, dated July 1, 1910, of her interest in the northwest quarter of Section 30, T. 30 S., R. 24 E., M.D.M.

Plaintiff introduced in evidence Plaintiff's Exhibit 7-S - LL, being deed from W .F. Phillips to J. C. Kirkpatrick, dated July 1, 1910, of his interest in the northwest quarter of Section 30, T. 30 S., R. 24 E., M.D.M.

Plaintiff introduced in evidence Plaintiff's Exhibit 7-T - LL, being deed from Mrs. Lenora Cage to R. P. Schwerin, dated July 1, 1910, of all her interest in the northwest quarter of Section 30, T. 30 S., R. 24 E., M.D.M.

Plaintiff introduced in evidence Plaintiff's Exhibit 7-U - LL, being deed from Richard Dougherty to O. Scribner, dated July 1, 1910, of all his interest in the northwest quarter of Section 30, T. 30 S., R. 24 E., M.D.M. [3032]

Plaintiff introduced in evidence Plaintiff's Exhibit 7-V - LL, being a deed dated July 1, 1910, from J. L. Reed to Paul Shoup, of all his interest in the northwest quarter of Section 30, T. 30 S., R. 24 E., M.D.M.

Plaintiff introduced in evidence Plaintiff's Exhibit 7-W - LL, being a deed from J. A. Ross to Rudolph Herold, Jr., of all his interest in the northwest quarter of Section 30, T. 30 S., R. 24 E., M. D. M.

Plaintiff introduced in evidence Plaintiff's Exhibit 7-X - LL, being a deed from J. E. Baker to Frank H. Buck, dated July 1, 1910, of all his interest in the northwest quarter of Section 30, T. 30 S., R. 24 E., M. D. M.

I have also brought with me the papers relating to the escrow of the northeast quarter of Section 30, 30-24, and now produce them, covering escrow instructions similar in tenor to the instructions in the previous escrow, together with eight deeds accompanying the escrow; they are the identical original papers which were accepted on behalf of the Union Trust Company from W. S. Badger, representing the Associated Oil Company or other individuals.

Plaintiff introduced in evidence Plaintiff's Exhibit 7-Y - LL, being escrow instructions last referred to.

Plaintiff introduced in evidence Plaintiff's Exhibit 7-Z - LL, being a deed dated July 1, 1910, John D. Cage to W. F. Herrin, of all his interest in the northeast quarter of Section 30, T. 30 S., R. 24 E., M. D. M.

Plaintiff introduced in evidence Plaintiff's Exhibit 8-A - LL, being a deed dated July 1, 1910, Miss Emma Cage to W. S. Porter, of all her interest in the northeast quarter of Section 30, T. 30 S., R. 24 E., M. D. M.

Plaintiff introduced in evidence Plaintiff's Exhibit 8-B - LL, being a deed dated July 1, 1910, W. F.

Phillips to J. C. [3033] Kirkpatrick, of all his interest in the northeast quarter of Section 30, T. 30 S., R. 24 E., M. D. M.

Plaintiff introduced in evidence Plaintiff's Exhibit 8-C -LL, being a deed dated July 1, 1910, Mrs. Lenora Cage to R. P. Schwerin, of all her interest in the northeast quarter of Section 30, T. 30 S., R. 24 E., M.D.M.

Plaintiff introduced in evidence Plaintiff's Exhibit 8-D - LL, being a deed dated July 1, 1910, Richard Dougherty (sometimes known as Richard Doherty) to O. Scribner, of all his interest in the northeast quarter of Section 30, T. 30 S., R. 24 E., M. D. M.

Plaintiff introduced in evidence Plaintiff's Exhibit 8-E - LL, being a deed dated the same day, and to the same property, J. L. Reed to Paul Shoup.

Plaintiff introduced in evidence Plaintiff's Exhibit 8-F - LL, being a deed dated the same day, and to the same property, J. A. Ross to Rudolph Herold, Jr.

Plaintiff introduced in evidence Plaintiff's Exhibit 8-F - LL, being a deed dated the same day, and to the same property, J. E. Baker to Frank H. Buck.

I have here also the papers in the same transaction, relating to the escrow as to the southwest quarter of Section 30, Township 30 S. Range 24 E., consisting of the letter of instruction by Mr. Badger, similar in form to the last two preceding, together with eight deeds received pursuant thereto by John D. Cage to W. F. Herrin; Miss Emma Cage to W. S. Porter; W. F. Phillips to J. C. Kirkpatrick; Mrs. Lenora Cage to R. P. Schwerin; Richard Dougherty to G.

Scribner; J. L. Reed to Paul Shoup; J. A. Ross to Rudolph Herold, Jr., and J. E. Baker to Frank H. Buck. These are all the original papers handed to me under said letter of instructions.

Plaintiff introduced in evidence Plaintiff's Exhibit [3034] 8-H - LL, being escrow instructions last referred to.

Plaintiff introduced in evidence Plaintiff's Exhibit 8-I - LL, being escrow deed dated July 1, 1910, J. E. Baker to Frank H. Buck, of all his interest in the southwest quarter of Section 30, T. 30 S., R. 24 E., M. D. M.

Plaintiff introduced in evidence Plaintiff's Exhibit 8-J - LL, being deed dated July 1, 1910, J. A. Ross to Rudolph Herold, Jr., of his interest in the same property.

Plaintiff introduced in evidence Plaintiff's Exhibit 8-K - LL, being deed dated the same day, J. L. Reed to Paul Shoup, of all his interest in the same property.

Plaintiff introduced in evidence Plaintiff's Exhibit 8-L - LL, being deed of the same date, Richard Dougherty (sometimes known as Richard Doherty), of all his interest in the same property.

Plaintiff introduced in evidence Plaintiff's Exhibit 8-M - LL, being a deed of the same date, Mrs. Lenora Cage to R. P. Schwerin, of all her interest in the same property.

Plaintiff introduced in evidence Plaintiff's Exhibit 8-N - LL, being a deed of the same date, W. F. Phill-

ips to J. C. Kirkpatrick, of all his interest in the same property.

Plaintiff introduced in evidence Plaintiff's Exhibit 8-O - LL, being a deed of the same date, Miss Emma Cage to W. S. Porter, of all her interest in and to the same property.

Plaintiff introduced in evidence Plaintiff's Exhibit 8-P - LL, being a deed of the same date, John D. Cage to W. F. Herrin, of all his interest in and to the same property.

I have brought with me also the escrow papers relating to the southeast quarter of Section 30, of Township 30 South, Range 24 East, M. D. M., which you now have, being the identical and original papers which the Union Trust Company accepted from Mr. Badger, consisting of a letter of escrow instructions, and [3035] eight deeds, as follows: John D. Cage to W. F. Herrin; Miss Emma Cage to W. S. Porter; W. F. Phillips to J. C. Kirkpatrick; Mrs. Lenora Cage to R. P. Schwerin; Richard Dougherty to O Scribner; J. L. Reed to Paul Shoup; J. A. Ross to Rudolph Herold, Jr.; and J. E. Baker to Frank H. Buck.

Plaintiff introduced in evidence Plaintiff's Exhibit 8-Q - LL, being letter of escrow instructions last referred to.

Plaintiff introduced in evidence Plaintiff's Exhibit 8-R - LL, being a deed, dated July 1, 1910, John D. Cage to W. F. Herrin, of all his interest in and to the southeast quarter of Section 30, Township 30 South, Range twenty-four (24) M. D. M.

Plaintiff introduced in evidence Plaintiff's Exhibit 8-S - LL, being a deed, dated the same as Exhibit 8-R-LL, Miss Emma Cage to W. S. Porter, of all her interest in and to the same property.

Plaintiff introduced in evidence Plaintiff's Exhibit 8-T - LL, being a deed, of the same date, W. F. Phillips, to J. C. Kirkpatrick, of all his interest in and to the same property.

Plaintiff introduced in evidence Plaintiff's Exhibit 8-U - LL, being a deed, of the same date, Mrs. Lenora Cage to R. P. Schwerin, of all her interest in and to the same property.

Plaintiff introduced in evidence Plaintiff's Exhibit 8-V - LL, being a deed, of the same date, Richard Dougherty to O. Scribner, of all his interest in and to the same property.

Plaintiff introduced in evidence Plaintiff's Exhibit 8-W - LL, being a deed, of the same date, J. L. Reed to Paul Shoup, of all his interest in and to the same property.

Plaintiff introduced in evidence Plaintiff's Exhibit 8-X - LL, being a deed, of the same date, J. L. Ross to Rudolph Herold, Jr., of all his interest in and to the same property.

Plaintiff introduced in evidence Plaintiff's Exhibit 8-Y, being a deed, of the same date, J. E. Baker to Frank H. Buck, [3036] of all his interest in and to the same property.

I have produced all of the papers of which I have any knowledge consituting that escrow.

Cross-Examination.

None of these escrows have ever been taken up; I believe they have all expired by limitation.

The defendants thereupon moved to strike out all of the testimony of this witness, and all of the documentary evidence introduced in connection with his testimony, on the ground, first, that the same was not rebuttal; second, that it was irrelevant; third, that it was incompetent; in that it consisted of hearsay testimony, of transactions between persons not parties to this action, or agents, representatives or parties to this action.

The defendants duly objected to all of the testimony and documentary evidence introduced by this witness, upon the grounds that the same was irrelevant and immaterial; that it is not rebuttal of any testimony introduced on behalf of the defendants; that it is hearsay; that it relates to transactions between persons other than defendants in this action, but not questioning the accuracy of the exhibits, so far as the Associated Oil Company is concerned; and upon the ground that the evidence is not the best evidence so far as concerns the books of said company and the books of the Union Trust Company. [3037]

J. W. KINGSBURY, a witness called and sworn on behalf of the plaintiff, testified as follows:

DIRECT EXAMINATION

I am mineral inspector for the United States General Land Office, and my profession is geologist. I graduated from the University of Utah, taking

courses pertaining to mining engineering and obtaining a B. S. degree. Then I specialized in geology at Columbia and took minor courses in mining and metallurgy and obtained a M. S. degree at the Columbia University of the City of New York. I graduated from the University of Utah in the spring of 1903 and went to Columbia between 1905 and 1907 and in the spring of 1907 obtained the master's degree. Prof. Moses was at the head of the Department of Mineralogy at Columbia University. The duties of a United States Mineral Inspector are to examine land and ascertain if it is mineral; and also to examine mining claims for which mineral applications for patent have been made to see if they comply with the rules and regulations and see if it is mineral. I have been connected with the United States Land Office in that capacity since the latter part of May, 1909, and was stationed most of the time in California; about a year of the time in Utah. I have examined land containing coal, copper, gold, byerite, gypsum, nitrogen, and petroleum, and [**3038**] other hydrocarbons,—gas and asphaltum. I have visited, officially, for the Land Office, in connection with my work, the lands which are involved in this suit. The first time I went onto the lands in the Elk Hills was in December, 1910. I went there on the morning of December 6th and left in the afternoon of December 7th. At that time the Associated Oil Company had men working in the hills on either Section 24 or 26 of Township 30 South, Range 23 East, and from a distance I saw men working about Section 30 of Township 30 South, Range 24

East. I saw men drilling on Section 36, Township 30 South, Range 23 East, and on Section 30, Township 30 South, Range 24 East. I don't know whether they were drilling on Section 24 of Township 30 South, Range 23 East. The next time I went into the Elk Hills was on June 10, 1911, and then again in January, 1912, and in November, 1912, and April, 1913. Before my visit in June, 1911, I had heard that oil had been discovered on Section 26 and I went up there to see. I found men were working there and the derrick had been spattered with oil, and there was some oil on the tools coming out of the well, that is, the rotary drill pipe.

(It was stipulated between counsel that the testimony of this witness was considered as objected to by the defendants on the ground it is not rebuttal and is not relevant to any of the issues of this case.)

At that time I met representatives of the Associated Oil Company on the lands in the Elk Hills; I met L. J. King and Mr. Barnes and Mr. W. O. Maxwell. Mr. L. J. King was superintendent of the Associated Oil [**3039**] Company. I had a conversation with Mr. King about the discovery of oil on those lands. I remember speaking to Mr. King and asking him for permission to look at the well, and at the same time he informed me that there had been a discovery of a great amount of oil on Section 30, in Township 30 South, Range 24 East, in one of the Associated Oil Company's wells. I went with Mr. King and Mr. Maxwell onto Section 30 to look at the well and saw oil coming from the well, which I esti-

mated at about 2000 barrels in twenty-four hours. Mr. Maxwell said that he thought it was about 5000 barrels per twenty-four hours. There were a number of men working around the well and also a short distance to the southwest of the well laying a four-inch pipe line toward the well on Section 26, in Township 30 South, Range 23 East. On my visit in January, 1913, to the Elk Hills, I found all of the section corners of the lands involved, and most of the quarter section corners; I also located the wells and derricks, a number of wells and derricks in that vicinity. When I mention the section corners, I mean of the lands involved in this suit. That would not include all the corners in Section 30, Township 30-24, but all of the lands involved in Township 30-23 and two of the corners of Section 30, 30-24. I also observed oil in a sump to the west of the well on Section 36, 30-23. I noticed gas escaping from the well on Section 24, 30-23. At that time I couldn't say just what quantity of oil I did see in the sump to the west of the well on Section 26; it was quite a large quantity. What I have been testifying to was not altogether in January; it was [**3040**] somewhat into February, but on January 24th I went out with Mr. McCabe, head driller of the Associated Oil Company and I gauged the well on Section 30, 30-24, and according to my gauge it was producing 385 barrels per twenty-four hours and the gravity of the oil was 24.2 Baume. A cut of that oil was made at the laboratory of the Associated Oil Company at the Pioneer-Midway Camp, and it showed about 2.1 per cent. water and 6.2 per cent.

base settlement. I was present when that cut was made. The time when I located the section corners was in January and February and at that time during that period I located the derricks in the different portions of the sections involved. In November, 1912. I crossed over those lands and worked to the east of them for about four days. At that time the Associated Oil Company had three watchmen there watching the wells on Sections 24 and 26, Township 30 South, 24 East, and also the drilling material and such. I visited the lands in April, 1913, and examined the wells at that time on these three sections; that is, the wells in which oil had been discovered, to wit: Sections 26 and 24, 30-23, and Section 30, 30-24.

I took photographs showing the condition of the wells at that time. I have had the negatives completed and the photographs made; I had them fixed up and enlarged. These photographs were taken with a standard lens by me.

This one is a photograph of the derrick over Associated Oil Company's well No. 1, southeast quarter of Section 26, 30-23, and was taken on that trip in April, 1913. [**3041**] It correctly and substantially delineates the conditions as they existed there at that time. The derrick is about 82 feet high. Said photograph last referred to is introduced in evidence and marked Plaintiff's Exhibit 11-R-LL.

This photograph I am now looking at shows a portion of rig over well No. 1 in the southeast quarter of Section 26, Township 30 South, Range 23 East,

the oil tanks, pump, pipe lines, boilers and cook houses. Said photograph is introduced in evidence and marked Plaintiff's Exhibit 11-S-LL.

Both exhibits 11-R and 11-S, being the exhibits just introduced, are of Associated Well No. 1 in the Elk Hills. One picture is of the derrick and the other shows the pump, oil tanks, pipe lines, boilers and so forth.

This photograph shows a portion of the sump containing oil belonging to the Associated Oil Company west of Well No. 1, southeast quarter of Section 26, 30-23, and the surrounding land and some derricks in the distance on Section 26. Said photograph is introduced in evidence and marked Plaintiff's Exhibit 11-T-LL.

The embankment shown at the left-hand side of 11-T is approximately 160 feet long; the surface of the oil there was about 60 feet wide at the left-hand, or west side, and about 60 feet up the canyon; the depth where the pole is shown is about 4 feet; the blackened margin of this sump was oil-soaked, indicating that at some time it had considerably more oil in the sump; or it might have been caused by water raising the oil up and blackening the sides in that way; I made no test to see whether all the material I saw was oil or water; I mean to be understood as saying that it was all oil as far as I know. I don't absolutely know that it is oil. I didn't see any water in there. There was no pipe line leading from Well No. 1 to the sump shown in Plaintiff's Exhibit 11-T. There was a ditch and pipe out at the side coming

down and running towards the sump hole. There was an outlet from the well to carry [3042] the oil into the sump and that outlet was both a pipe and a ditch. The ditch was oil-soaked. On my last investigation there was some oil running into that sump from the well.

I now show you a photograph of the inside of the derrick on well No. 1, on the southeast quarter of Section 26, 30-23, showing the two gates and pressure valve; the gates were located by chains running through handles and around the pipes, and fastened with a padlock; the pressure shown was 320 pounds; the derrick had been spattered with oil, but at this time it was dry; the dark places in the picture are caused by the dark place where I took it; although it is spattered with oil. It would look dark if it had been in the light. It was covered with spattered oil clear to the top. The gates were entirely closed at the time I was there in April, but there was a little gas escaping at some points, but I did not locate it.

All the photographs which you have shown and introduced at this time were taken by me on April, 1913.

Said last-mentioned photograph introduced in evidence, and marked Plaintiff's Exhibit 11-U-LL.

The photograph now shown me represents a portion of the sump containing oil belonging to the Associated Oil Company of well No. 3, in the southwest quarter of section 24, 30-23; the embankment shown is 180 feet long at the top; from the surface of the oil to the top of the embankment is about 12 or 15

feet; I do not know how deep the oil is below the surface.

Said photograph introduced in evidence, and marked Plaintff's Exhibit 11-V-LL.

My recollection is that the oil extended about 50 feet up the canyon at that time; from the surface of the oil to the highest point of saturation on the margin of the sump was, vertically, about 2 feet; that blackened space shown on the photograph was saturated with oil. I do not know whether there was water under [**3043**] the oil, or not; they generally have a pipe at the bottom of a sump to let the water out, but the pipe in this sump was closed.

(The defendants make the same objection that was made to the introduction of the other exhibit purporting to represent a sump hole, which, of course, is understood to be in addition to all the general objections, which are not waived to any of this testimony.)

All the photographs already introduced, and the three which I now hold in my hand, were made by me in April, 1913, and developed in the same way as I have testified to in regard to the first photograph. They were taken by me and I took them to the Owl Drug Store, where I had them developed; and I examined them and then had enlargements made.

The photograph now shown me shows the rig over the Associated oil well No. 3, in the southeast quarter of section 24, 30-23, and the contrast of the land surrounding the well, which has been stained with oil, and that which has not been stained, and a small por-

tion of the sump; that up around the well, the blackened portion of the earth; the derrick was covered with oil-stains all the way up, spattered;

Said photograph introduced in evidence, and marked Plaintiff's Exhibit 11-W-LL.

The next photograph shows me in a picture of a pump at a sump a short distance east of the Associated Oil Company's well No. 1, in the southwest quarter of section 30, 30-24; this pump was connected with the four-inch pipe-line referred to by me; it was right over the sump, and connected therewith by a pipe; it was not in operation at that time; it was connected to a boiler; some men were working around section 26, but it cannot be determined how long since this pump had been operated.

Said photograph introduced in evidence, and marked Plaintiff's Exhibit 11-X-LL. [3044]

Here is a photograph showing the derrick over the Associated Oil Company's well No. 1, in the southwest quarter of Section 30, 30-24, and an oil tank, in which the production of the well was gauged January 24, 1912; I do not think this derrick was covered with oil.

Said photograph introduced in evidence, and marked Plaintiff's Exhibit 11-Y-LL.

In Plaintiff's Exhibit 11-W, under the derrick are a couple of gates connected with the casing from the well, and a pressure gauge; the gates were locked with chains the same as in Section 26; all three wells on the three sections mentioned were capped; I could hear gas escaping from the wells on section 24, in

30-23, and section 26, 30-23, I am sure, and I think gas was escaping from the well on section 30, 30-24; men were working around the wells painting the boilers and fixing them up, for the Associated Oil Company; none of the wells appeared to have been abandoned; they had the appearance of being closed down, that is all; in well No. 1 of section 26, 30-23 oil was coming out between the casing and running into the sump about 300 feet away; the pressure gauge showed 320 pounds; I estimated 400 barrels of oil in that sump at that time, on section 26; at the sump on section 30, well No. 1, of 30-24, the margin was blackened up several feet vertically, indicating that there had been more oil in it; it had a little oil in it at that time; the well on sections 26 and 30 were connected to the tanks near them with four-inch pipeline; there was a sign on the derrick over section 30, saying "Associated Oil Company's Well No. 1, Section 30, 30-24"; then there were some tanks down near the Pioneer Midway which the four-inch pipe line had been connected to at one time, bearing in big letters "P. M. O. Company", and a notice to employees signed by J. L. King, Superintendent, warning employees against matches; smoking and such things as that; there was also a statement of danger as to gas and oil; this was down near Fellows; the **[3045]** diameter of these tanks, I should judge, was about 50 feet, and the height 15 feet; they were of steel; the pressure gauge on the well on section 24 showed a gas pressure of 287 pounds; gas was escaping; At the request of Mr. Mills I examined the

record of this case showing alleged daily drilling reports on the three wells mentioned, introduced in the testimony of Mr. W. E. White, and constructed graphic logs based on those reports and telegrams; I took a certain scale, and put them down to scale; put down everything shown in the daily drilling reports shown in defendants' exhibits 175, 176 and 177, and gave the different distances of the different formations passed through, and the kind of formation; on the telegrams I added data by marginal notes; my data was all taken from the defendants' evidence except the red-ink notation between 3342 and 3465 feet, entitled "Oil formation. See above notes, March 10, 1911." This notation was taken from Mr. White's letter of March 10, 1911, filed as an exhibit herein, addressed to the Associated Oil Company by Mr. King.

Said log introduced in evidence, and marked Plaintiff's exhibit 11-Z-LL.

(It was stipulated between counsel that defendants reserved the right to make any additional objections to those already made, to this line of testimony, until the logs had been checked by the defendants' counsel.)

The paper you now hold is a similar log of well No. 3 in section 24, 30-23, and was prepared by me.

Said log introduced in evidence, marked Plaintiff's Exhibit 12-A-LL.

The telegram forming the basis of my red-ink notation on this exhibit 12-A was found in the record of Mr. W. E. White, and was sent from the field of

the company in the office in San Francisco, stating: "Flowing through six-inch casing spasmodically. Put out great quantity of oil sand. Also making good clean oil. Production **[3046]** at lowest figure 780 barrels oil yesterday. Without doubt will increase in flow." It was dated June 17, 1912.

The log next shown me is of the well on section 30, of 30-24, well No. 1, and was prepared in the same way.

Said log introduced in evidence and marked Plaintiff's Exhibit 12-B-LL.

From the comparison of the graphic logs prepared by me from the alleged daily drilling reports of the Associated oil wells on these three sections of land with the graphic logs constituting Defendants' Exhibits 175, 176 and 177, the differences in general are that the logs introduced by defendants aren't in detail, showing the different formations passed through as shown on the daily drilling reports, while my logs are. And then there are some other startling differences as to oil formations and such things. Defendants' Exhibits 175, 176, and 177 are not exactly correct logs or graphic pictures of logs even assuming the daily drilling reports introduced through the testimony of W. E. White, defendants' witness, is to be correct. The defendants' logs last referred to show oil sands in well No. 1 on Section 26 at the depth between 3850 feet down to 4030 feet with a little shell near about 3975 feet. My log shows the oil sand in that locality, with part of it shale in a couple of places. The log of the defendants in general is

correct at that depth. The defendants' log has a note here stating, "First showing of [3047] oil at 3342 feet", and it does not show oil sand at all from 3342 feet to 3465 feet. It shows shale. From the depth of 590 feet to 2432 feet the defendants' log shows, in formation, shale, blue shale, rock. It does not make any mention at all of the occurrence of boulders. By reference to the log prepared by me, Plaintiff's Exhibit 11-Z, the daily drilling reports show the occurrence of boulders between those depths in ten different places. The occurrence of boulders, geologically, is the indication of shore conditions. Defendants' log for this well, Defendants' Exhibit 176, between the depths of 3596 feet and 3774 feet, shows shale, shell; and at 3596 feet it shows compact sand, but does not show any trace of oil from 3596 feet to 3644 feet. The daily drilling reports, by reference to my log, show a trace of oil all through there. The defendants' log as to that well does not in any way indicate the true conditions as shown by the daily drilling report. Examining defendants' exhibit 175, the formation indicated as having been passed through between 1602 feet down to 1610 feet is shale, and the log prepared by me from the daily drilling reports for that depth shows clay and boulders. Between 1628 feet and 2080 feet, the defendants' log shows hard and soft shale. The daily drilling reports show, from 1628 feet to 1647 feet, shale and boulders; from 1647 to 1658, blue clay; from 1658 to 1666, hard shale; 1666 to 1710, blue clay; from 1710 to 2012, blue shale; from 2012 to 2031, soft blue shale and boulders;

from 2031 to 2080, shows blue shale. Assuming the daily **[3048]** drilling reports to be correct, Defendants' Exhibit 175 is not a correct picture of the formation passed through for the depths mentioned. Defendants' Exhibit 175, between the depth of 2525 feet to 2550 feet, does not show any occurrence of boulders. The daily drilling reports indicate the occurrence of boulders at that depth and those boulders indicate shore conditions there—sand and boulders from 2545 to 2550 feet. Defendants' Exhibit 175, between the depths of 2835 feet and 2845 feet, shows no indications of gas between those depths. ' The daily drilling reports, upon which that log is presumably based, by reference to my log, show there was gas struck between those depths. The daily drilling reports referred to, or the defendants' log for the well, does not show any oil-bearing formations were encountered at or near the bottom of the well. The daily telegrams sent to the Associated office from the field, from my examination of them, as to that depth, show oil-bearing formations were encountered and that considerable oil was discovered and also considerable oil sand. The defendants' log, the Associated log, does not show oil sand at or near the bottom of the well; nor do the daily drilling reports show any oil sand. When I am asked what the occurrence of oil sand instead of oil shale would indicate geologically, I would answer: Well, sand is a better formation for oil to accumulate in, as the more minute holes are not so compact as the shale. Also it would indicate that it was deposited near a

shore in the shale. Defendants' Exhibit 177, at the depth [3049] between 344 feet and 390 feet, does not show the occurrence of any gas. The daily drilling reports, by reference to my log, Plaintiff's Exhibit 12-B, show the occurrence of gas between those depths. Defendants' Exhibit 177, does not show any gas between 515 feet and 520 feet. By reference to my log as to that well, between those depths, the daily drilling reports show sand and gas. Defendants' Exhibit 177, between the depths of 2125 and 2200 feet, shows shale, but no boulders. By reference to my log, prepared from the daily drilling reports, those reports indicate the occurrence of shale and boulders between those depths. Between the depths of 2710 feet and 2720 feet, the defendants' log, Exhibit 177, shows hard oil sand, showing lots of oil. The daily drilling reports show hard oil sand from 2711 to 2713 feet, showing lots of oil. From 2819 to 3058 feet, or a distance of 239 feet, the daily drilling reports show blue shale showing oil for the entire depth. The defendants' log, Exhibit 177, gives a showing of oil at about 2915 feet. Plaintiff's Exhibit 11-Z was not made up entirely from the daily drilling reports, but I obtained the information which is inserted in red ink between the depths 3342 and 3465 from a letter. That information is contained in a daily drilling report of March 10, of 1911. Speaking generally of the three sump holes constituting the earthen reservoir for the reception of oil from these several wells of the Associated Oil Company, which we discussed this morning, I know from my

examination on the last date that I was out in the Elk Hills that provision was made by **[3050]** pipes to carry off the water which might have collected in the sumps. As to the condition of the well on Section 30, of 30-24, I was there when it was about 2422 feet deep and the well at that time was flowing. It was gushing; it was showing out of a spigot—direct flow. I traced the axis of the anticline crossing Township 30-23 at the time I was there. When I am asked what relation the lands in suit bear to that anticline with reference to the lands that we have been discussing, that is, Section 24 and 26 of Township 30-23, and Section 30, Township 30-24, my answer is, they have a similar relation to it and they are all on the same anticlinal structure. The sections of land in this suit are parts of Section 15, 17 and 19, all of Section 21, 23, 25, 27, 29, 33 and 35 of Township 30, South, Range 23 East.

CROSS-EXAMINATION OF J. W. KINGSBURY

My connection with the Department of the Interior as a mineral inspector began in 1909, in the latter part of May; I was at first assigned to Utah territory, with headquarters at Salt Lake City, to examine it as to coal and other hydrocarbons and metallic minerals, including ozokerite and Gilsonite, but not petroleum; I was stationed at Salt Lake City until August, 1910; then I went to San Francisco, as a practical miner for the Government; I had worked in mines in Utah, and also a little work in some mines in Nevada and Mexico; I was a mucker, timber-man,

timber-man helper, time-keeper, sampler, assistant in surveying, and surveying, and assisting in mine examinations; the mines were copper, gold, lead **[3051]** and silver; I assisted in examining a copper mine at Yearington, Nevada; I think I got the title Mineral Inspector after I went to San Francisco, at first working on the mother lode, gold and placer; continued that until December, 1910, then went into the oil fields; the general nature of my work in the oil fields has been examining lands to see if they were oil-bearing, and to see if the requirements were fulfilled where patents were applied for; at first I was not qualified for this work; I had a pretty good education in geology, and after looking into the situation to some extent I thought I was qualified; my work has been entirely for the Government while in California; I have never located any wells, or had anything to do with drilling them; I have watched drilling, both with rotary and standard drills, and have studied logs produced by each; I have made a study, and there is usually a great difference between the two in the same locality.

I have studied the terminology of different drillers, and find that they differ considerably; I would not feel safe in accepting the terminology of every driller as to some formations; such as boulders, and where they run into the hard rock I would feel pretty safe, but as to clays and gumbo and shales I would not; the various terms used by drillers I would feel safe in relying upon the use of the word "boulder,"—pretty safe.

I have never had occasion to examine the logs of two wells drilled very close together, say within three hundred feet, one of which was drilled with a Standard rig and the other with a rotary; if two wells were drilled, one with a Rotary and one with a Standard drill, one reporting boulders and the other not, I would judge that there were boulders in the vicinity, although the Standard tools probably missed them; they might go in on a number of wells and miss the boulders, while in another well you might strike them; you can usually tell when you hit them; I have never handled a drill when it struck a boulder, and never saw either of **[3052]** these drills strike a real boulder, but have seen the logs and have seen the trouble they had with such things; I cannot recollect just the number of logs that I have had occasion to construct, but it would go up to twenty, anyway, including those that I took from the drilling reports in the Elk Hills; I have examined many others; I found no fixed system in the construction of various logs which I have examined; they depend a great deal upon the interpretation of drillers, and those who compile the reports of the drillers; sometimes drillers term oil as a trace of oil, and sometimes they get a color, and call that a trace of oil, but the color is not always produce by oil; a little iron, or manganese might produce it; iron stain becomes hard, and when you mix it up it will break, while oil will follow your stick and come together again; I have forgotten just what manganese will do; I did know.

It often happens that "traces of oil" are reported

erroneously; I have an idea that I have examined materials said to be from the drilling of boulders reported in logs, but don't recollect just where; in some cases it came out in pretty good sized pieces of granite or igneous rock; I could tell with a microscope what kind of igneous rock it was, but did not do so; I don't recollect where I observed granitic material brought out from a boulder, but I know it was from rock in place, because they found oil below the place, and generally you consider that when you strike granite in place you are not going to find any sedimentary formations below that; I explain the occurrence of igneous rock that is not granite by saying that igneous rock has been washed there too; if you find—it depends on the kind of igneous rock you find whether you could find any sedimentary rock below; I can tell shale and broken shell from igneous rock.

I did not make any examination of the alleged boulders to which I referred in my direct examination, in the Elk Hills; I started to get data in this case about the middle of July last; **[3053]** I got my information from the testimony of drilling reports, and need no data outside of that; I was engaged in the operation of these logs about two weeks; I endeavored to construct them upon the same scale as the Associated Oil Company's logs introduced in evidence, and had them about completed a week ago; I had the prints made before that, but corrected and colored them; I missed the formation in two or three places; Mr. King, of the Associated, handed me logs of these wells, I think, in 1911 and 1912.

In 1912 I assisted in measuring the flow from the well in section 30; and was afforded every facility for making this measurement; in subsequent trips to the fields I found pressure gauges upon the wells indicating the pressure; they were not placed there by myself; they were there, and were not concealed from observation; they allowed me to go in there, and the gauges were open to observation; I always told them that I was a mineral inspector of the General Land Office, and it was generally known to all the employees.

I have no objection to the logs of the Associated Oil Company so far as they go; in a number of places they wrote the notes on the side, and in one instance stopped at a certain place, and a little later I picked up telegrams showing great improvement in the well, which I have indicated on the chart; to some extent the logs of the Associated Oil Company are misleading as to whether or not it is oil formation, but I do not think they are intentionally misleading; by "startling difference" between their logs and mine, I meant it was rather startling that they did not show some of the boulders; then in log of Well No. 1, Section 26, 30-23, in a side note on the log introduced by the defendants, the log shows oil formation from 3475 to 3490, while the drilling report shows, "We have washed the oil formation from 3342 to 3485 feet."; then from 3725 to 3848 feet, the log introduced by defendants of this same well No. 1, section 26, 30-23, shows shale, **[3054]** while the daily drilling reports show that the formation from 3742 to 3848 feet

contained some oil, and when I am asked: "Do you consider that an absolutely essential discrepancy?", "Couldn't shale contain oil?", my answer is: "I say they didn't show by the defendants' logs that the formation contained oil." This well No. 3, Section 24, 30-24, from 1602 to 1610 feet, by the log introduced by the defendants, shows shale, while the daily drilling reports show clay and boulders. The omission of the boulders certainly is a startling fact. Again, between 1628 feet and 2880 feet, the defendants' log shows shale, while the daily drilling reports show shale and boulders between 2012 feet and 2031 feet. Again, between 2525 feet and 2550 feet, defendants' log gives hard sand, while the drilling reports show hard sand and boulders. It is evidence there that in each of those cases the startling fact is the omission of boulders. Again, between 2835 feet **[3055]** and 2843 feet, the daily drilling reports show shale with a little gas, while the defendants' logs do not show any gas in this locality—at this point in the well, and the omission of the gas is the startling fact. I consider these as important discrepancies. In defendants' exhibit 175, log on well No. 3, Section 24, on the side notes they give a number of telegrams and end up with June 4th, where they "Pumped 90 barrels of oil and 10 barrels of mud. Shows great improvement," etc. Going on, there are other telegrams. They didn't put down, especially on June 13th, 1912, where it states: "Well flowed almost continuously merely pulling tubing. At the present time making eight or nine hundred barrels." I con-

sidered that as one of the startling discrepancies. Again, on June 17th, 1912, they have a telegram: "Flowing through six-inch casing spasmodically." That appears on defendants' exhibit 175. I will finish the telegram: "Put out great quantities of oil sand. Also making good clean oil. Produced at lowest figure 750 barrels of oil yesterday. Without doubt will increase in flow." The oil sand which was put out by the well,—it seemed as though they passed through that without seeing it. Defendants' exhibit 175 does not show that in any respect. Then, well No. 1, Section 30, 30-24, by defendants' log of this well, from 344 to 390 feet, shows no gas, while the drilling reports show some gas. Again, in 515 to 520 feet, the daily drilling reports show some sand and gas, while the defendants' log does not show any gas. From 2125 feet to 2200 feet, the daily drilling reports show shale and boulders, while the defendants' log **[3056]** shows shale. From 2819 to 3085 feet, the daily drilling reports show "blue shale, showing of oil", while the defendants' log gives a showing of oil at about 2915 feet, and shale. That is about the discrepancies I found and I was referring to those discrepancies when I spoke of the startling differences between the defendants' logs and my logs. I would have to know who made up the log before I could say the omission was or was not intentional. I was told to prepare my logs in detail from the daily drilling reports and then compare my logs with those introduced by the defendants; when a log shows items of production I think it should show all; it is

not a fact that I picked out a single telegram and have overlooked and intentionally passed by a great number of other telegrams showing a progressive diminution in the production of oil from the well in Section 24. It does diminish after that, but the reason for the diminution is that the sand came in, clogged it up, the bit was lost in the well, and they could not clean it out; then there is one thing here that I did not show on the log which is of as much importance or more than what I have shown; that is the telegram of August 12, 1912, that the well would produce 3,200,000 cubic feet of gas along with the oil in a day; this was omitted because I though I was putting on representative conditions; it was a matter of interpretation on my part, so I picked out the highest reported production to put on my log, because it showed the oil sand there, and then this gas production is very important, which I did not show; I have placed on the margin of my log for section 24 the telegram of June 17, 1912, because it showed oil sand coming out, while that is not shown in the drilling reports or in the log of defendants; I got it from the telegram; Mr. Mills told me to put on the margin in red ink "oil sand instead of shale"; this was from 3600 to 3800 feet, but I did not note on my log that this well had been cased solidly down to 3865 feet prior to the time when this telegram was sent; Page 7651 of the record shows that the casing was [3057] perforated from 3700 feet up and this telegram was after that perforation and I consider that the sand came in some place in where the casing has been

perforated. Just the locality, I could not state. The casing was perforated between the two points of 2500 and 3700 feet. The perforations were three-quarters by one inch holes and there were two holes per foot. I would not expect this sand that I referred to as so important to come in below the 3700 foot level, and when I am asked: "Is your log, where you have indicated that as coming in below the 3700 foot level, correct?", I answer: "On my log I have made broken lines. I didn't expect it to be exact, exactly in that locality. It is somewhere around where the perforations were." I expected my attention to be called to this discrepancy. I expected to be asked about that. My log, as far as the diffeernt kinds of formation passed through, shown in the daily drilling reports, is not inaccurate. Referring to this particular portion of my log where I have in heavy red lines covered a space approximately between 3600 and 3800 feet and labeled it "oil sand instead of shale," I have it in broken heavy lines—red lines—and it does not represent the exact locality of the oil sand; but when I put it down I intended it to represent the oil sand in some place around there. It would be very hard to give the exact location of that because most likely that was masked when they passed through it with a drill. I have indicated on my log the perforations from 2500 to 3700. That is important to the man who is drilling, but not to the geologist; from a geological standpoint I considered the sand as the most important thing to my mind; I had it up on a side note, but when I finally located the

sand between 3600 and 3800 feet, I did not indicate the perforations so as to make my log intelligible to a geologist because I did not have the time; I intended to put the formations on; I do not know as there is a discrepancy in favor of Exhibit 175; I did not intend to show perforations; I intended to show the formations **[3058]** passed through as shown by the daily drilling reports.

In my log for the well in section 24 sand is shown at 3104 feet; it shows sand and shale in a couple of places; ten feet of sand, 3104 to 3114, fine sand; the well was perforated at that point; the daily drilling reports show sandy shale at another point; from the reports I would say that the shale was solid; the gas and oil going out through that would loosen it up some; you get lots of shale and mud coming up with oil, lots of times; this sand being forced up led me to conclude that the formation near the bottom of the well was sand in some locality; there was nothing to prevent sand coming in through the perforations opposite 2500 feet, and 3700 feet, but I think it would come below 2940 feet. I say that because the hole bridged over at that point on account of the sand and there is reason for assuming that that sand didn't come from the ten foot fine sand formation at 3104 feet, because in the telegram it states it is oil sand there. I don't know that they struck oil in that fine sand. The sand is merely the sponge in which the oil accumulates and there is no essential difference in the sand itself. If that sand that came out picked up oil from some other point coming from shale, you

couldn't tell from the appearance of the sand after it got out of the well, but I don't see how that sand would flow in there without being washed in there in some way or another. I refer to the sand at 3104 feet. The daily report does not state that they obtained any water at that time, any great amount which would wash that sand in. They generally state when they get the water how much water it is. They have in these telegrams; it could be forced in by gas; they do not state that they struck gas, but that is not conclusive that they did not strike gas; there might have been gas there that was released afterwards. I want to correct that statement. I was looking at the wrong part of the well. I find where they struck gas above there but not below. I do not find anywhere in the drilling reports or in the telegrams or in **[3059]** the daily letters in connection with this well on Section 24 any statement that the formation below 3104 feet contained sand at any point, only when they got out the oil sand; it may come from below, or it may come from above; and when you ask me: "Is there any good oil sand there?", my answer is: "I am taking the daily drilling reports and telegrams." The oil sand may have come from anywhere below 2904 feet, where the bridging occurred.

Q. You were asked this further question: "Q—What would that indicate, geologically—the occurrence of **[3060]** oil sand instead of oil shale? A—Well, sand is a better formation for oil to accumulate in, as the more minute holes are not so compact as the shale. Also it would indicate that it was de-

posited near a shore in the shale." Are you now able—

Q. By Mr. Mills—Is that what you said?

A. If I said that I didn't mean it.

Q. By Mr. Lewers—What did you mean? I don't want to have you mis-quoted.

A. Nearer the shore than the shale.

Q. Nearer the shore than the shale.

A. Than the shale would be.

Q. Then, in your opinion, basing your answer, as I understand it, entirely upon the telegram of June 17, 1912, you would say there was a shore line down there at about 3600 to 3800 feet—the well on Section 24?

A. Well, that shore line proposition is rather indefinite. The shore is progressive always. It either advances or retreats. It might have existed in that locality and have advanced on farther up to where they find the shore now, where it has been eroded out and they can see.

Q. Well, do you at this time think that this telegram of June 17, 1912, indicates shore line conditions at the point where you have put this red ink notation in the margin of your log?

A. Not at that point; no. It indicates the sand—that it was nearer the shore than the daily telegrams would indicate. **[3061]**

Q. By Mr. Mills—The daily what?

A. Or I mean the daily drilling reports would indicate.

Q. By Mr. Lewers—In order to reach the con-

clusion that shore line conditions exist there, you disregard entirely as false the daily drilling reports concerning the formation passed through, do you? I am directing your attention to the shore-line conditions which you spoke of in your testimony being at the bottom of the well in section 24, or near the bottom. In reaching the conclusion that such shore-line conditions exist there, you did disregard as false the daily drilling reports showing a shale formation down there, did you not?

A. Not as false, no.

Q. Then as mistaken?

A. I think they are probably mistaken in some locality.

Q. And your sole reason for so doing is the telegram of June 17th, 1912? Is that correct?

A. I stated, I think, to that answer, that sand occurring there would show that it would be nearer a shore-line than the shale. That is what I wished to convey.

My sole foundation for that conclusion with respect to this well near the bottom of it is this telegram of June 17, 1912, and that telegram would not be so apt to be mistaken as the drilling reports, for the sand came out of the well—it was seen—while in drilling with a rotary drill they may have taken some of the mud which they put in and it might have come out at that locality and **[3062]** called it—and thought it was shale they were passing through. Assuming that the telegram is mistaken, and the drilling reports not, then I would not have any foun-

dation right there for the conclusion as to the shore-line, although I think the shore-line existed in that locality at one time. The drilling reports show, in well 24, that on the 16th of July they were down to 3600 feet, and on the 21st of July, a period of five days, they were down 3793, and blue shale was reported in the daily drilling report for each of those days.

I do not think the drillers would likely be mistaken between shale and sand every day for five days; they might have been mistaken one or two days and missed the sand, and the telegram of June 17th might have referred to hand anywhere up to as high as 3904 feet, so it is possible for the drillers to have made an accurate report of shale at that point and the telegram also be accurate; but in drilling with a rotary drill the reports are not very accurate; a driller will know sand when he gets hold of it; there are a great number of cases where when they drill with a rotary drill they pass through sand without knowing it; I do not think they would pass through 200 feet of sand without knowing it; I did not want to represent 200 feet of sand on my log, but some sand; I wanted to indicate by the broken lines that it was approximate; that is the notation which Mr. Mills suggested that I add on the margin, to which I have referred before.

I would like to make a correction in my testimony of this morning, where I was asked if I thought the logs introduced by the defendants were intentionally incorrect or a misrepresentation, and wherein

I said I didn't think so; and by that I meant that I don't know; I know nothing about how they were got up. I don't mean to be understood as being willing to admit that they were gotten up in good faith —neither way; I don't mean to make any decision whatever.

My attention was first called to the telegram of June 17th, [3063] 1912, in July of this year, 1913, by reading it myself; my log of the well on section 24 was entirely my own work; it must have been a month after I had it blue-printed when I corrected it, as I did not have access to the records when it was printed; I had access to the record while preparing the material that went to make up the log as originally prepared; it was based upon a careful checking of the drilling reports; between 2056 and 2080 I have blue shale indicated, hard blue shale; at 2056 to 2080 hard blue shale is indicated, and 2157 to 2167, hard blue and brown shale; the drilling reports show the same; I did not have room, so put in hard blue and brown shale 2157 to 2175 feet, because the color does not amount to much, but this is designated out to the side as blue and brown; at 2312 to 2355 feet I have soft blue shale; from 2312 to 2390 I have hard blue shale; I am crossing out the word "hard" between 2312 and 2355, as that is blue shale; I don't want anything to go in wrong if I happened to miss it.

I note that beyond 2312 feet they drilled 43 feet in one day; it didn't look as though it was hard to drill, they went pretty fast, but I don't know that

it was soft shale; all things being equal the distance drilled in a day would have some bearing upon the determination of the quality of the shale; I don't know as this could be designated as soft shale, but it looks like good drilling shale; I have never done any drilling or had any experience in drilling with a rotary or any other kind of machine to know whether you can drill 43 feet per day in hard shale.

My log shows hard brown shale at 2415 to 2423 feet; at that point I inadvertently put down brown in place of blue; it does not show exactly what was found by the driller, as I intended it to; at 2423 to 2452 feet I have hard brown shale; the reports show hard blue shale 2431 to 2437; there again I have an error of the same kind; that also is an error in not showing what was recorded in the drilling reports, as I intended this log to show; between 2423 **[3064]** and 2452 feet I have a showing of some gas; that is an error; my log tends to exaggerate to that extent; there is a gas showing there, but not all of that; unless corrected, my log would be misleading to that extent.

Taking into consideration the small amount of the formation left out there, I should consider the defendants' log correct, in general, as to well in section 26, Exhibit 176, between 3850 and 4043 feet; I have on my log in red ink "Oil formation. See above notes, March 10th, 1911." I have not noted sand here; I took this from the daily drilling reports, and considered it as sandy shale, in one locality; I don't know whether there is sand there or not; I

only meant to convey the inference that it was oil formation.

Q. Do you find anything in the drilling reports to show that it is an oil formation between those places?

A. Can I get the drilling reports, please? Page 7343, the daily drilling report, the 10th day of March, 1911, in the remarks, an additional report of the same date, stating, "After washing mud out of the hole and washing oil formation at 3342 to 3485 with drill pipe, we pulled pipe out of hole. As last pipe came out gas blew nearly all water out of hole and 30 feet above derrick. Hole bridged over with sand at 2640 feet, stopping flow." That is where I got one of them. Now, there is another place.

Q. The same thing; there is another place, is there not?

Mr. Mills: Well, let him look it up and complete his answer.

A. On page 7626, for March 13th, afterwards, "No. 10" (in parenthesis), 1911, 3548 feet, leaving out a little, "after washing mud out of hole and washing oil formation at 3342 to 3485 with drill dipe," et cetera, it goes on: "Hole bridged over at 2640 feet, stopping flow." **[3065]**

Q. By Mr. Lewers—You based that statement, then, upon those two reports,—which are identical, are they not, in substance?

A. Yes sir.

Q. And on the basis of that, you made your no-

tation which appears at the upper right-hand side of your log for this well, did you not?

A. Yes sir; I did, on the basis of that. I am using this record here for the basis for all my log —everything you find.

Q. Do you think that the omission of that notation would be a defect in a log, Mr. Kingsbury, of that well?

A. Yes; I think that would be quite a defect.

Q. And that is such a defect as you have called a startling discrepancy, is it not.

A. Yes sir; it is a startling discrepancy.

Q. That is the chief discrepancy between your log of this well and the log of the Associated Oil Company for the same well, is it?

A. That is one of the big discrepancies.

Q. And that is one which you would term "startling," is it?

A. Yes sir.

Q. I call your attention to Defendants' Exhibit 176, the Associated Oil Company log of this same well in Section 26, and ask you to examine the notes at the upper left-hand side of that log and say whether or not it says anything about this matter that you say is a startling discrepancy?

A. Yes sir; it does. **[3066]**

Q. Read what it says.

A. As the same is—I have got over here on mine.

Q. Well, will you read it, kindly?

A. "March 10th, depth 3548 feet, 4½-inch casing, 3168 feet washed mud from hole and washed oil

formation from 3342 feet to 3485 feet with drill pipe. Pulled drill pipe. Gas blew water 30 feet above derrick. Hole bridged with sand at 2640 feet, stopping flow." Of course there are discrepancies here. I believe, when I testified to that, I—noted that that occurred in this log of the defendants.

Q. Did you not mention that as one of the startling discrepancies between the two?

A. Yes sir; I believe I did. Also noticed these boulders here.

Q. Well, just a moment here. We will come to the other discrepancies. I want to finish with this one first. Is your notation concerning what happened on March 10th, 1911, correct? The one on your own log?

A. No sir. I have 3465 feet instead of 3485.

Q. In other words, this incorrect Associated Oil Company log gives 20 feet more of oil formation than you do?

A. Yes sir.

Q. From what do you conclude that that was all oil formation?

A. They state they washed the oil formation from 3342 to 3485 feet.

Q. Could they determine that it was oil formation in [3067] the process of washing?

A. No. I should think they had other information as to that which don't occur in the daily drilling reports.

Q. They, your conclusion is not based upon that

notation but is based upon a suspicion that they had other information, is it?

A. No; I have taken what was in the daily drilling reports.

Q. Do the daily drilling reports show oil formation between those points, 3342 and 3485?

A. The daily drilling report makes the report, on page 7343. They state that there is the oil formation there; they washed it.

Q. Now, you understood my question perfectly well. Aside from this report of washing, do the daily drilling reports show any oil formation between 3342 and 3485?

A. Aside from where they say they washed the oil formation?

Q. Yes.

A. They don't.

Q. Do the telegrams or letters or any other data that appears in the record, aside from this report of washing, show oil formations there?

A. Well, aside from where it states about washing that formation, I have not seen any other information.

Q. At whose suggestion was that red-ink notation of oil formation put on that log?

A. At Mr. Mills' suggestion.

Q. You had prepared the log without any such notation **[3068]** at that place, had you not, before that?

A. I had prepared the log with the notation up to the left-hand side—right-hand side—of the log,

showing this. Mr. Mills suggested that it would be good to have it down where the distances are shown; and I thought it would probably be pretty good, too.

Q. And you followed his suggestion?

A. It shows the accurate conditions.

Q. Was that put upon there for the purpose of creating the impression that there was sand there, —oil sand?

A. That was put down there to show that there was an oil formation there, just as is stated in the daily drilling report of that day, and nothing else —just to show what I found in the daily drilling report.

I know that there was oil between 3342 and 3465 from the daily drilling reports. They show oil in one report—the washing report. There are two places there and I am certain that I have correctly interpreted that report of March 10, 1911. I am referring to the washing report and I am quite positive that indicates an oil formation all the way down from 3342 to 3485; that is, from the washing report, and I base that upon my experience in the oil fields.

[3069]

Sometimes the mud they put down a rotary cases upon the sides and they have to wash it out lots of times before they can get the oil to come up, or the gas; it stops it off; it is for the purpose of testing out the well as to whether it contains either oil or gas; that is, at some times. Sometimes they know that it contains it; and when they know that it contains it, why, sometimes it won't come out unless it

is washed; the oil won't come out of the oil formation until they have washed it; and it is done for the purpose of allowing the oil to come up; the oil may not come out right at the start; it may take a considerable pumping before you can pump oil; it may contain oil, as oil blow-out; I do not remember whether there was pumping done there or not; I did not examine the production reports of that well altogether. I know the formation that is represented as sand on the bottom of this well on Section 26 is oil sand from the daily drilling report. I have not examined the production reports enough to say whether the showing of oil increased after they reached this formation at the bottom of the well which is marked as oil sand; at a depth of 199 to 222 feet, my log shows gumbo with boulders, also boulders and sand; the daily drilling reports show gumbo with boulders, also boulders and hard sand; I left out the word "hard" in my log, and it does not show what is in the drilling report; in the space from 278 feet to 291 feet, my log says rock and gumbo, with boulders, and the daily drilling report says rocks and gumbo with boulders; the drilling reports say "rocks", and my log says "rock"; that may be a typographical error. Assuming that it is correct, I don't know that it would mean anything to me unless they wanted to bring the impression that there were smaller rocks there as well as larger boulders; that is, assuming that this is correct. I think that the distinction between rock and rocks is important, the distinction is important; in refer-

ring to the depth on my log between 590 and 604 feet of this same well, the formation shown is rock. The drilling reports on [3070] page 7267 of the transcript state "rocks." I don't think that it means boulders. I think it means rock and hard substances that they are passing through, and as to the discrepancy between the daily drilling report and my log being at all important in that respect, I will say that "rocks" is different from the word "rock." If it means "rocks" in the sense of boulders, it is quite a discrepancy. The depth of 1215 to 1296 on my log shows blue shale and boulders. The daily drilling reports, page 7284 of the transcript, state, from 1215 to 1244 feet, shale and boulders; 1244 to 1296, shale and boulders. I don't know where I got the blue shale in my log; that is an error. It does not give exactly what is in the daily drilling reports as I intended to. In my log of that well I gave 2802 to 2803 as gumbo. It should have been 2802 to 2813, gumbo. That is an error of ten feet. The error is in the number, but in sealing it it would be the right size. My log at 3140 feet shows oil.

Q. Do you find that in the drilling reports?

[3071]

A. I must have found that some place. I don't see it here.

Q. Isn't this the fact, that after they had drilled that well to a considerable distance beyond 3140, that on March 19th, 1911, they began perforating, agitating, swabbing, and placing the well on air, and that the showing of oil at 3140 took place long after

all these things had been done and the well had been drilled away below? You will find that, I think, if you will refer to page 7632—that is, the showing of oil. Look under the date of May 10th, Mr. Kingsbury, 1911.

A. 3140 shows oil; yes sir.

Q. That was on the date of May 10, 1911, was it not?

A. Yes sir.

Q. Is it not a fact that this well had been drilled down to a depth of 3548 feet on March 5th, 1911? Look at page 7340.

A. March 5th, 1911, it was 3548 feet.

Q. And two months before the showing of oil was made they had reached a depth of 400 feet below the point where the showing of oil occurred? Is that right?

A. Yes sir; that is right.

Q. How far was the casing down on March 5th, 1911?

A. 3168 feet.

Q. How do you account for the showing of oil at 3140, then?

Mr. Mills—I don't know that the witness is called upon to account for it, inasmuch as he has testified that he took his log from the data, from the record itself. **[3072]**

Q. By Mr. Lewers—As matter of interpreting the record.

A. I don't know, unless they pulled the casing back.

Q. Well, did you inquire? I mean, did you examine the record to ascertain whether they did or did not?

A. No; I can't say that I did.

Q. Didn't you regard that as important in the preparation of your log?

A. In this case it would be important.

Q. Does your log show any perforations?

A. My log does not show any casing, either, nor perforations.

Q. Neither casing nor perforations. Will you examine the Associated oil log for this same well that you have before you and state whether it shows any perforations?

Mr. Mills—That is objected to as entirely irrelevant—whether it shows perforations or not. These logs are introduced to show the discrepancies between the facts and the logs introduced by the Associated Oil Company.

A. Yes sir. In a side note.

Q. By Mr. Lewers—What does the Associated Oil Company's log of that well show?

A. It shows that the well was perforated—or the casing was perforated; that is, the 3-inch line was perforated from 4000 feet to 3498 feet.

Q. Is that the only perforation?

A. Then, later, the 4½-inch casing was perforated from 3475 to 3330 feet.

Q. When was that done?

A. August 23rd. **[3073]**

Q. What year?

A. It does not give the year after the date.

Q. Well, will you turn to page 7347 of the drilling reports and state what appears there, if anything, concerning perforations, giving the date?

A. The date of March 19, 1911; perforated with twelve 7-16-inch holes per foot from bottom up to 3303 feet.

Q. You say that was on the date of March 19th, 1911?

A. Yes sir.

Q. Will you turn to page 7349 of the transcript, showing drilling reports, and state what was done at that time in connection with this well, and referring also to page 7350? It begins at the bottom of the first page.

A. Here on March 25th, 1911, "Well pumped intermittently. Some water. Also flowed; produced approximately 75 barrels of oil."

Q. Yes. Then what was done immediately following that?

A. They placed the well on air.

Q. What is the purpose of placing a well on air?

A. Sometimes use compressed air to get the oil out.

Q. To make it produce, is it not?

A. Yes sir.

Q. That was on what date, did you say.

A. March 26th, 1911.

Q. Knowing those facts, would you conclude that the showing of oil reported two months later, on May 10th, 1911, at 3140, came from 3140, or could it

have come from lower down, the well having been perforated at that time and also [3074] having been put on air?

A. I don't know just how much showing of oil there was there, or the character. I could not make any judgment on that.

Q. Would you regard that, under the circumstances, as a safe indication that there was oil at 3140—in the formation at 3140, I mean?

Mr. Mills—That is objected to Mr. Lewers, on the ground that it goes to a question not opened on direct examination, and as irrelevant and immaterial; calls for the conclusion of the witness, who does not pretend to have been there at all. He simply constructed the logs from the daily drilling reports.

A. Well, I could not decide that question. I don't know the conditions there—just how they located that oil.

Q. By Mr. Lewers—Refer, on your log for the well on Section 26, to the depth of 3265 to 3268, and read what your log shows?

A. Gumbo there.

Q. At 3265?

A. 3263 to 3268.

Q. What is that?

A. Oh, over here on the other side, 3265 to 3266, hard shale.

Q. Is that sixty-six or sixty-eight? It is blurred, and I could not make it out.

A. 3266.

Q. Then I will modify the question. Your log shows, from 3265 to 3266, what? [3075]

A. Hard shale.

Q. Will you look at the drilling report appearing at page 7336 of the record and state what it shows?

A. 3263 to 3266, blue shale.

Q. Then your log is incorrect, is it?

A. So far as—Yes sir; as to that.

Q. By Mr. Mills—"So far as" what?

A. As far as showing the kind or character of the shale between 3263 and 3266.

Q. By Mr. Lewers—That showing on your log was added after you had prepared the log in the first place, was it not?

A. Yes sir; that was.

Q. And it is a discrepancy, is it not?

A. It is a discrepancy; yes sir, as to these three feet from 3263 to 3266, as to the character of the shale.

Q. Do you regard that discrepancy as at all important?

A. Why, as it does not show what occurred in the drilling reports, that is. what was put down in the drilling reports.

Q. Do you regard the discrepancy between your log of the well in Section 26 and the Associated log for the same well, in regard to the perforations, as at all important? Is it what you would term "a startling discrepancy," if it had been the other way?

A. I didn't intend to put in the perforations.

Q. Well, do you regard the omission of those perforations as a discrepancy, to one who desires the history of that well for geological deductions?

[3076]

Mr. Mills: The log was not put in for any such purpose, Mr. Lewers. It was put in to show suppression of facts in different exhibits.

Mr. Lewers: I think it is showing that very distinctly. I am glad you admit that as your purpose.

Mr. Mills: Yes; that is the purpose—to show that they suppressed certain important facts in the logs introduced.

A. If this log were the only thing that I had, why, it would be a discrepancy; but as this log is practically correct—

Q. By Mr. Mills: Which log?

A. The log of the defendants is practically correct along that line, I didn't think it was necessary.

Q. Along what line?

A. In putting in the perforations.

My log does not show that after they drilled to a depth of 3548 feet, on March 5, 1911, that later the well was re-drilled from a depth of 2800 feet down to its ultimate depth of 4030; I used the first drilling reports down that far, to 3548; I made a comparison to some extent between the two drillings as shown by the daily drilling reports in the space between 2800 feet and 3548 feet that was passed over twice, to see whether the drillers reported the formation the same in both cases; they did not report the same, meaning to me that a rotary drill is not very accur-

ate in getting the formations passed through; when I am asked if those discrepancies or differences might not be due to the fact that different drillers were on when they reached the same place the second time, my answer is: "Well, there are two things to take into consideration—the different drillers, and the method of drilling." I find that as to shale and gumbo they use different interpretations; I have never seen a log that reported a formation of pulvidero; I do not know what it is; I have seen "hardpan," which I generally considered hard clay; there is no universal rule governing the expressions **[3077]** used by drillers, but boulders I think would be termed the same in the same locality; I do not know how the driller detects the symptoms of a boulder when he stands with his hand ready to avoid any trouble, and it hits a boulder; they tell me that they know when they strike a boulder, but I just don't remember what they did tell me about that; I know with a standard they are apt to cause the hole to become crooked; as to the rotary, I don't know. I have heard of a rotary drill "chattering." That expression means rebounding and jumping. It seems to me that a boulder would cause that. Any substance that will not grind up smoothly might cause that jumping. I couldn't tell you if that same effect is produced upon a rotary drill by the same striking hard shell at an angle where one side of the drill touched it and the other didn't. I do not know that a rotary driller ordinarily, whenever the drill strikes anything that causes it to rebound, jump, or

chatter, labels that "boulders." I cannot say to the contrary. Here at the top of the well in Section 26, 30-23, where they would not be apt to have either shells or anything like that, they have marked it "boulders."

At a depth of 3609 to 3664 feet, my log shows "Soft blue shale; hard blue shale; soft blue shale; having a trace of oil." My log shows a trace of oil in all these formations, the drilling reports show "Soft blue shale," and at the bottom it says "All the sofe blue shale formations show trace of oil." My log is not correct where it shows a trace of oil in other formations except the soft blue shale; I wish to correct this; where I stated that all the soft blue shale formations show a trace of oil; that is down as far as 3657; below that, to 3686 all the formations show oil. Between 3609 and 3664 there is fifteen feet of soft blue shale showing oil and seven feet of hard blue shale showing oil. The hard shale is between 3657 and 3664 and the rest of it does not show oil from the drilling reports, and my log is therefore incorrect in that respect. I would call that a startling discrepancy, but not inten- **[3078]** tional; that is, with respect to what I find in these drilling reports. In some respects I took these telegrams to form the basis of my information. I examined some of the telegrams to see whether they show these things. All my answers as to incorrectness are based on the daily drilling reports alone. I don't know whether I found anything in the telegrams altering that situation. I have not had a chance to examine

the telegrams since. My log of the well in Section 26, from 3860 to 3918, shows oil sand, good light oil. When they reached 3860 the casing was down 3572. I do not think the apparent showing of oil could have come from higher up. They had oil sand there; good light oil. They were drilling with a rotary drill and the hole would naturally be pretty well mudded. They keep them mudded up pretty tight and I do not think the oil could come down. I made a mistake in putting traces of oil opposite the gumbo, hard shale, between 3609 and 3657; that was inadvertent on my part. It shows traces of oil at different points and my log is inaccurate in that respect, it does not show the true conditions as reported in the daily drilling reports from which I made my log; it shows oil where it should not be; there is oil through that distance at different localities as shown by the daily drilling reports and the log of the defendants does not show any oil through that distance. Maybe they had inside information to make up this log; I don't know. According to the daily drilling reports, my log shows too much oil formation while the log introduced by the defendants does not show any oil formation in this locality between 3596 and 3664, and to some extent both are not to be depended upon as correct, although there is oil scattered through there —an oil formation scattered through there. I did not have a desire in every instance to magnify the oil showing; in one instance, between 3342 to 3465 feet, showing a trace of oil, I should have shown

3342 to 3485 feet; I there made a reduction of 20 feet, but this was entirely inadvertent.

It was on June 10, 1911 that I went to the well on section 30, **[3079]** 30-24 and observed the flow of oil, which I estimated at 2000 barrels; I did not take any measurements, but estimated from looking at it; I have had no experience in estimating the flow of oil; I have estimated the flow of water; I have estimated the flow of oils all along, and then would ask the men around; I endeavored to give a careful estimate of this well; Mr. Maxwell told me it was about 5000 barrels; he may have been there before; on this occasion we had been there but a very short time, and I assumed that the flow that I observed would continue for 24 hours; I think he overestimated it; he seemed elated and let that get the better of his judgment; he knew the position I held, and I think he took me over there to observe the conditions, so that if they should make an application for patent I would know the facts; he made no effort to minimize the amount or volume of oil.

As stated in my direct examination, I consider boulders an indication of shore conditions; they are generally hard, because they are water-worn, and by the process of elimination, the softer materials disintegrate, and the boulders are found in sand and gravel, although they might be found in finer material; where we have the boulders and sand laid down and then the sand washes away, later we have quiet waters coming on until you get **[3080]** the finer materials deposited around the boulders, and they may

rest on clay; they would rest upon shale and such materials, as it would have been hardened; if they fell into mud or clay, it would necessarily have to harden; I can think of conditions where boulders would be deposited by currents, then we get the quiet waters, and get the silt, and the boulders might be found resting in sand or gravel; you will notice that they find in one place at this well, boulders and sand; you even find boulders in rock, where the materials have hardened around them, after the deposit. It will take a long time after silt and clay are laid down by sedimentary deposit, before it hardens sufficiently so that the currents will not carry it away, and it would before the boulders arrived, a great deal of fine sand and coarse gravel; I would expect to find the boulders at the shore-line; the shore line would necessarily be flat, and it would take a very heavy current to transport boulders any distance.

I cannot cite any instance in the literature of geology where boulders have been actually found to have existed deposited in rock formation or hard shale. I cannot say that I have seen boulders mixed with shale or clay; it might be possible for ice flows and such things as that to carry boulders and drop them some distance from the shore line into fine silts or clays. The nearest boulder that I have shown in my log of the well on section 26 is 40 feet from the surface, deposited in gravel and sand, and would indicate unmistakable shore-line conditions; it is considered a fresh water deposit. I have never made

any examination of the formations along the Mount Diablo Range to the east of the Elk Hills, or examined the outcrops over there where shore-line conditions are revealed; I have to the southwest, and found boulders there embedded in sand, but not in shale or rock. The log of the well on section 26 introduced in connection with the testimony of Mr. Luke shows boulders in the same places as [3081] shows on my log; the log from which I obtained my information ws a graphic log, while this one to which you call my attention is a descriptive log; the graphic log shows the formations graphically, and a descriptive log just describes them; very often the graphic log combines the daily reports in order to show the officials of a company as entire formation. My logs were made to show the differences or discrepancies in the graphic logs of the defendants, especially with reference to oil and boulders. I didn't see the descriptive logs introduced; and these descriptive logs were not called to my attention by Mr. Mills, I think; if so I disregarded them; I was in the hospital about a month, and out of work for two months on account of sickness, and may have missed some instructions which were given me.

In the descriptive log of the defendants on well No. 3, Section 24 of 30-23, in the Elk Hills, are shown boulders at the same place shown in my log; and there is shown 750 barrels of oil which I did not notice on that log; I was not directed to examine the production charts shown during the testimony of Mr. White, that I recollect; I saw certain produc-

tion data on the graphic logs of the defendants, so I just put some on mine, to show that they did not have it complete, that there were some discrepancies; I find considerable discrepancies as to the production. I did not make mine complete; I picked out the highest one I could find of oil and called that representative; I did not make an accurate report, but a representative production. I didn't put in the gas. In looking over the data I find right after that that the well became clogged and we could not go by the production after that, so it would be a kind of a hard think to make an accurate estimate of the production.

As to the shore line, I have not attempted to chart that by the boulders in these wells; shore lines are variable; we find it maybe at the line which the shore was located at a certain time, in a geological epoch; it may have advanced to that point during **[3082]** that epoch for a number of miles; I think in its advance it would come pretty close to both sections 26 and 24, and through them; it may have been considerably higher in 26 than in 24; 26 is a little to the southwest of 24; if the shore-line conditions in section 26 come up to within 40 feet of the surface, I would not expect the same line of elevation on the shore-line continued, that would be revealed by an outcropping on the surface beyond section 26; that has been covered up; we have a deposit coming on top of that as it extends on farther to the west, as the shore-line advances, or retreats, rather, and the ocean advances;

Q. Then, you think the fold in the Elk Hills is more recent than the deposition of the last shore-line material that you have spoken of, do you?

A. Well, I don't know as to that, the material found right on the surface of 26.

Q. Well, you say you don't know. All right.

A. Now, I don't want it to be understood here that this **[3083]** graphic log from which you have drawn shows correct conditions.

Q. By Mr. Mills—"Log?" Is it a log?

A. Graphic chart, which is drawn here, shows correct conditions, for we don't know that this point at 1770 to 1600 is on the same strata as we find the gravel in 26—or, boulders in 26 at 40 feet to 360.

Q. By Mr. Lewers—It is the first indication of boulders in well on Section 24, is it not?

A. As found on 24.

Q. You think there might probably or possibly have been some above that?

A. There may have been. Certainly.

Q. Did you find anywhere in the Elk Hills, in all of your examinations, any outcrop of sands or boulders indicating shore-line conditions?

A. No. Those outcrops are—There are no outcrops. All that is covered.

Q. Even beyond the range?

A. Yes; beyond the range.

Q. They are still covered?

A. Yes.

Q. They come up to within 40 feet of the surface

on Section 26 but are not revealed in any of the ravines in the Elk Hills? Is that correct?

A. Well, now, that was—The material on Section 26 is fresh water deposit; was probably deposited when the land was above water there.

(Chart offered in evidence and marked "Defendants' Exhibit 201.) **[3084]**

I think the manifestation of a boulder would be more distinct with a standard rig, as we have loose tools, and in a Rotary they are pretty tight and rigid; a real boulder might be likely to cause trouble in either case; in either case, if the drill hit the boulder squarely, it would slow up; if it were hit on the side, and was small, it would probably be pushed aside, but if large, it would deflect the tools; it is very probable that a driller would know if a Standard drill went through it, if it were embedded in rock; the bailer would bring it up; if a Rotary drill struck it, it would grind it up, and it would come up as mush or mud; that is why I think a Standard would be more likely to reveal the presence of the boulder.

Q. Do you know with what sort of a rig the well in Section 24 was drilled?

A. I will look that up. Drilled with a—

Mr. Mills: Now, I object, again, to this line of cross-examination, as not proper, nor based on any questions or matters elicited on direct examination; and I advise the witness not to answer the question. It seems to me that counsel is trying to kill time

because we are getting to the close of this rebuttal testimony.

Mr. Lewers: Your suggestion, Mr. Mills, is entirely without foundation. This is proper cross-examination, and I consider the objection made because Mr. Mills knows very well that it is going to get at points that will cast entire discredit upon the testimony and conclusions of this witness.

Mr. Mills: I submit that you have now spent a day and a half in cross-examining this witness, and out of the entire time you have not spent half an hour on any matters that were elecited on direct examination.

Mr. Lewers: I want an answer to my question.

Mr. Mills: Well, I advise the witness not to answer it. **[3085]**

Q. By Mr. Lewers—Are you going to follow that advice, Mr. Kingsbury?

A. I will follow the advice of my attorney.

Q. Very well, then. I want a further foundation, however. Mr. Kingsbury, do you claim any privilege on the ground that the answer would tend to incriminate you?

Mr. Mills—You need not answer that question. If the court is going to compel you to answer, of course you will answer it.

Q. By Mr. Lewers—Do you refuse to answer?

Mr. Mills—We have sat here twelve hours, now, listening to a lot of irrelevant and immaterial questions, and I have objected to very few of them in hopes that you would finally get through.

A. With all due respect to the court, I will act upon the advice of my attorney until otherwise instructed.

Q. By Mr. Lewers—Would the answer to this question be revealing anything that you have received as a privileged communication in any respect?

A. That is along the same line as the questions which I have refused to answer.

Q. And you refuse to answer that, do you?

A. I think, upon the advice of my attorney, and with all due respect to the court, until I am—or, until the court makes a decision upon that point.

Q. I now ask you to examine page 7489 of the transcript in this case. Will you turn to it? (Witness examines transcript). Will you read what appears under "Remarks," on the rotary, for the 11th day of December, 1910, the **[3086]** drilling report as it appears on that page 7489?

A. That question is along the same line as—

Mr. Mills—Answer the question, and get through. Let's see whether we can get somewhere.

A. (Continuing) "Installing Rotary."

Q. By Mr. Lewers—Well, is that all that appears under those remarks? Read it all.

A. "Dismantling Standard rig; installing Rotary."

Q. Would you conclude from that that the drilling down to that point had been done by a Standard drill?

Mr. Mills—I object to that, as clearly calling for a conclusion of the witness on the testimony. The

testimony will show. The court will draw its own inference.

Mr. Lewers—You may answer.

A. As Mr. Mills has already said, the testimony introduced by the defendants will show.

Q. I am asking you for your conclusion. Will you kindly answer, without evasion?

A. I don't know as I am called upon to make any conclusions along this testimony.

Q. What depth was indicated by the report for that same day, as appearing on that same page?

A. The depth stated is 1555 feet.

Q. Will you examine your log for that same well and state where the first showing of boulders occurs —at what depth?

Mr. Mills—Which well is it?

Mr. Lewers—Twenty-four. [3087]

A. Twenty-four. The depth was 1570 feet.

Q. After they had changed to a rotary, was it not?

Mr. Mills—Well, I don't know that the witness knows anything about that, except what the testimony shows, Mr. Lewers. He does not claim to have been there at that time?

Mr. Lewers—You may answer.

A. That would be calling for a conclusion upon the testimony already given.

Q. You have not hesitated to draw many conclusions, on direct examination. Will you draw another one here? That was after the Rotary was installed, was it not?

Mr. Mills—How does he know, unless he was there, Mr. Lewers?

Mr. Lewers—You may answer.

A. I was not there to see.

Q. You are very ready to take the suggestions of counsel, I see?

A. Yes.

Q. That shows very good team-work. I shall not interfere with that. Now, will you turn to page 7312 of the record and state what is there said as to the kind of rig that was being used in drilling the well in Section 26?

A. On the 28th day of December, 1910, they were not using any tools.

Q. Well, what is said under "Remarks" for that date?

A. "Rigging up for Standard tools."

Q. At what depth was that, as it appears from that report?

A. The testimony shows that. The testimony of the other— **[3088]**

Q. Will you kindly answer my question? What depth was that?

Mr. Mills—He wants to know what is on the—what appears there.

A. The depths given here, "Depth last reported, 3174. Hole made, 1 foot. Present depth, 3175."

Q. By Mr. Lewers—Will you turn back over the pages before that showing the reports for drilling and state what sort of a rig is reported, say back for ten or fifteen pages?

A. Well, as for December 26th, 1910 page 7311, "Rotary rig."

Q. Turn back to page 7264, and read what is said under the report for July 7th, 1910, when they were down to a depth of 320 feet. What kind of a rig were they using

A. July 7th, 1910, "Remarks:—Rotary." I notice above that, they have "gumbo and boulders."

Q. They were drilling with a rotary then, were they not?

A. I don't know. It don't state so.

Q. Well, do you find any indication of a change from a Rotary to a Standard or from a Standard to a Rotary after they started the well?

A. They don't state what they started the well with.

Q. By Mr. Mills—What depth was that gumbo and boulders?

A. 316 to 319.

Q. By Mr. Lewers—Well, do you conclude from the fact that it does not appear what they started with that they started with a Standard?

A. They may have spudded in with a Standard.

[3089]

Mr. Mills—What well is this, Mr. Lewers?

Mr. Lewers—Twenty-six.

Q. Do you find any notation in those notes, daily reports, of rigging up or changing from a Standard to a Rotary?

A. It may have been rigged for both, to start with.

Q. Oh, I see. Why was it, then, that when they got down to 3175 they found it necessary to dismantle it and to rig it for a Standard?

A. I was not there.

Mr. Mills—That calls for a conclusion that the witness cannot possibly answer; and I therefore object to it.

A. I was not there. I don't know.

Mr. Mills—Just a minute.

Q. By Mr. Lewers—You say you were not there.

A. No.

Q. Well, you were not there in the first place, either, were you?

A. No.

Q. When they started the well?

A. No.

Q. Yet you were willing to volunteer a suggestion that it might have been rigged for both Standard and Rotary at the same time?

A. Yes sir.

Q. But when I call your attention to the report that they dismantled the Rotary and rigged up for a Standard, you are unable to make any suggestion. Is that because it shows the inaccuracy of your first suggestion? **[3090]**

A. Now, let's have that first question. (Record read by Special Examiner.) Now, I can't tell you why they did.

Q. Do you know whether or not they drilled with a Rotary again after they had reached 3175? Refer to page 7329 of the record.

Mr. Mills—I can't understand how you expect to prove by this witness, who manifestly does not know the facts, as to what happened at the well when he was not there.

Mr. Lewers—It is barely possible that I am anxious to show that he does not know anything about the facts.

Mr. Mills—Well, it is admitted that he was not there, excepting one or two times, when they were drilling.

Q. By Mr. Lewers—Have you found the page?

A. Yes sir. 7329.

Q. What were they drilling with at that point, according to the notes?

Mr. Mills—I object to that, unless the witness knows the fact, and he has already stated he does not know.

Q. By Mr. Lewers—You may read what it says

A. They were not drilling with anything.

Q. Well, what kind of a rig were they using?

Mr. Mills—If you know what kind of a rig they were using, answer the question without hesitation. If you don't know, say so.

A. Well, I don't know what kind of a rig they were using at that time.

Q. By Mr. Lewers—Will you read what appears under "Remarks", at the bottom of page 7329, under the date of February 10th, 1911, at a depth of 3175 feet? **[3091]**

A. "Rigging up Rotary."

Q. Will you read, on page 7334, under the head of "Remarks", under the date of February 21st, 1911, what is stated about the kind of drill?

A. "Rotary rig, from depth of 3177, working with 2-½ inch drill pipe."

Q. Will you refer to page 7340, and read what is said under "Remarks", for the report of March 4th, 1911, as to the character of the rig?

A. "Rotary rig."

Q. What depth were they at that time, according to the report?

A. According to the report, they were between 3527 and 3548.

Q. Now, referring to the well on Section 30, do you know what sort of a rig was used on that well?

A. Not from my personal knowledge.

Q. What kind of a rig was in operation while you were there?

Mr. Mills—Pardon me, before you answer that question. Is it your contention that the well on 24 was entirely drilled with a Rotary?

Mr. Lewers—No. My contention is that the well on 24 was drilled with Standard tools to 1555, and then with a Rotary the rest of the way.

Mr. Mills—On page 7312 it shows they were rigring up for Standard tools. 3175 feet.

Mr. Lewers—3175.

Mr. Mills—Yes. **[3092]**

Mr. Lewers: That is Section 26. It appears on Section 26 they drilled with a Rotary to 3175, temporarily installed Standard tools, and then went

back to Rotary and finished with the Rotary down to the bottom. So that Section 26 was entirely drilled, so far as any progress was concerned, with a Rotary.

Mr. Mills: That is, you claim that the evidence shows that?

Mr. Lewers—Yes. No question about that.

Mr. Mills: What is the use of going over this with this witness, if that is your contention. Let the evidence show it.

Mr. Lewers: I want to get these together.

Mr. Mills: You can't make your evidence any stronger to have a witness for the government testify that the evidence shows a certain thing.

Q. By Mr. Lewers: Now, is it not a fact that the well in Section 30 was drilled with a Standard to 1323, and a Rotary the rest of the way? Refer to page 7175.

A. From the evidence introduced by the defendants, it shows this fact.

From these I do not think that the fact that they drilled with a Standard in Section 24 down to 1555 feet had anything to do with the absence of a showing of boulders in the logs, nor do I think the fact that they drilled with a Rotary beyond that had anything to do with a showing of boulders, and my same answer applies to the well drilled entirely with a Rotary on section 26.

The word "boulders" means but one thing; I don't know whether a driller using a Rotary would denominate the chattering of the drill as an indica-

tion of a boulder; I have not had sufficient experience to state that there is any difference in the movement of a rotary drill in striking a real boulder and in striking any other substance or formation that would cause it to chatter and jump. I have not had an opportunity to see a Rotary drill strike a boulder; I notice in the papers handed me, the well logs, of well **[3093]** 6, Section 20, 32-24, that it was drilled with a Rotary, and that they have struck a number of boulders in this well, with sand and boulders, clay and boulders, coarse sand and boulders; the other log, which purports to have been drilled with a Standard, shows nothing referring to boulders, although we have what is reported as granite sand, which may have been boulders ground up .

Said last-mentioned logs introduced in evidence, and marked Defendants' Exhibits 202 and 203—LL.

REDIRECT EXAMINATION OF J. W. KINGSBURY

At the time I was on the trips with W. O. Maxwell, of the Associated, and L. J. King, superintendent of that company, to the well on Section 26, 30-23, and 30 of 30-24, it was June 10, 1911, before I ever heard of this suit; Mr. Maxwell was highly elated over the discovery of oil in the well on Section 30, as I stated before; so far as I know he did not know anything about the suit.

If a boulder were struck with a Standard drill some evidence of the boulder might be drawn up in the bailer in small fragments, which would be addi-

tional evidence of the boulder; in my opinion a Rotary driller knows when he strikes a boulder of any size, but I am not so familiar with the Rotaries, and could not answer exactly as to them; from my study of reports, striking the boulder at an angle sometimes breaks the bit, and sometimes deflects it; it does not follow because a drill strikes a boulder at one place that it must necessarily strike a boulder in the same strata a mile and a half away; it frequently happens that a well in one case will strike strata containing boulders and perhaps have trouble, while a well a short distance away going through the same strata may pass safely through and not encounter them.

The principal discrepancies between the daily drilling reports introduced by the plaintiff and the graphic logs known as Defendants' Exhibits 175, 176 and 177, is an omission of the boulders in the graphic logs, and the many missings of the production of **[3094]** oil, and leaving out places where gas was obtained; I consider it a startling discrepancy when drilling reports and telegrams sent from the field by the Associated Oil Company's employees show a production of from 750 to 900 barrels per day that the graphic logs which are alleged to have been made up from that very data show only 90 barrels a day; assuming that the drilling reports and telegrams are correct, and from that data I find a production of 750 barrels a day in one well, and the drill stem broke off, and while they were fishing for it for two or three weeks the well made 100 barrels a day, I think

750 barrels a day as I have on my log is representative in a conservative way of the capacity of that well.

RECROSS EXAMINATION
OF J. W. KINGSBURY

If a well is producing 750 barrels a day, I think a hundred barrels a day is a conservative estimate of production when the well is clogged with sand and drilling tools and such things. This well was clogged with sand last February, and I base my conclusions upon the assumption that it was clogged with sand and drilling tools. I regard my logs as calculated to convey a correct impression of the facts.

REDIRECT EXAMINATION
OF J. W. KINGSBURY

The inaccuracies pointed out by Mr. Lewers are of minor importance geologically and on the ground of production, but there are no inaccuracies in the amount of production of oil or in the occurrence of boulders.

RECROSS EXAMINATION
OF J. W. KINGSBURY

When you ask me if I regard the insertion of 200 feet of oil sand as a minor discrepancy in my log, my answer is that I have not inserted any 200 feet of oil sand; I have approximated the location **[3095]** where oil sand might exist, as shown from the telegrams, and I used broken lines to show it was an approximation. The oil and sand does exist—I will

say that; but I have used that side note to show an approximation where it probably exists. As far as what my logs were made out for, I am satisfied with them, and I am satisfied with the production of oil as shown by my logs. As an accurate resume of what is indicated by the drilling reports, telegrams, and daily reports of the Associated Oil Company for those wells, it shows what they could produce if in good condition.[3096]

GEORGE W. STEWART, a witness called and sworn on behalf of the plaintiff, in rebuttal, testified as follows:

DIRECT EXAMINATION

By Mr. Mills:

Q. You are the Register of the local United States Land Office at Visalia?

A. Yes sir.

Q. And are you at the present time?

A. Yes sir.

Q. Who is the Register of that land office at the present time?

A. The Receiver?

Q. I mean who is the Receiver?

A. Arthur H. Swain.

Q. How long have you held the office of Register of the land office?

A. Very nearly sixteen years.

Q. Continuously?

A. Yes sir.

Q. Then, I take it that you were Register of that office during the years 1903 and '04?

A. Yes sir.

Q. Now, I show you this bunch of bound papers, which purports to be a list of lands selected by the Southern Pacific Railroad Company. Will you examine it, please, and state what it is and where it has been?

A. This is a list, numbered 89, received at our office November 14th, 1903, and has been in our office all the time until I brought it here to San Francisco.

Q. Yes. That is, it has been under your official custody and control as Register of that office?

A. Yes sir. [3097]

Q. Now, will you state whether that is a selection list of indemnity lands within the main land limits?

A. Indemnity limits.

Q. Indemnity limits?

A. Yes sir.

Q. And is that the original document which was filed by the railroad company as of the date November 14th, 1903?

A. It is one of five copies.

Q. All originals, are they?

A. It is their usual practice to file five copies, and we treat them all as original so long as they are in our possession.

Q. Now, what is the practice in the Department with reference to the treatment of the five copies

after they are received? What do you do with them?

A. After approval, three copies are returned to the railroad company, one copy is retained for the permanent files of our office, and one copy in due course is transmitted to the General Land Office.

Q. Yes. Now, is this the copy which you retained in your office?

A. Yes sir.

Q. What does it contain? What papers does it contain, naming them? What is the first paper? Isn't the first paper a certificate of the Secretary of the Southern Pacific Railroad Company certifying that Chas. W. Eberlein was appointed acting land agent of the applicant, Southen Pacific Railroad Company, at a meeting held on the 2nd day of September, 1903, and since that time has been continuously the acting land agent?

A. It is.

Q. What is the date of that?

A. November 7th, 1903.

Q. Now, what is the next paper you find? The next is a list [3098] of lands, is it not, signed by Chas. W. Eberlein, as acting land agent?

A. Well, it is the application accompanying the list.

Q. Yes. And the next five pages—

A. Are the list of selected lands and a list of lands assigned as bases therefor.

Q. Yes. Followed by what?

A. By an affidavit of Chas. W. Eberlein.

Q. Dated?

A. Dated November 7, 1903. The next is a certificate signed by the Register and Receiver of the local land office. The next is a statement of Chas. W. Eberlein, acting land agent, that the railroad company offers to pay for the survey of the lands under protest.

Q. And the next paper is what?

A. The affidavit of Chas. W. Eberlein that he is acting land agent of the Southern Pacific Company.

Q. That is not the last paper, is it?

A. No.

Q. Next to the last?

A. Next to the last.

Q. And will you read the—not read it, but give the substance of that affiadvit.

Mr. Lewers: Do you expect to put the document in evidence itself?

Mr. Mills: Yes.

Mr. Lewers: Very well.

A. And that he has caused the lands selected in said list 89 to be carefully examined by the agents and employes of the company as to their character.

Q. By Mr. Mills: Yes; as to their mineral or agricultural character, eh? **[3099]**

A. As to their mineral or agricultural character; and that to the best of his knowledge and belief none of the lands returned in said list are mineral lands.

Q. When was that affidavit subscribed and sworn to?

A. Subscribed and sworn to November 7th, 1903.

Q. What is the last paper in this bunch?

A. That is a certificate from the Register of the Land Office at San Francisco regarding the base lands, with which we have nothing to do.

Q. What is the date of that certificate?

A. November 12th, 1903.

Mr. Mills: Now, with this identification, I offer this bunch of papers in evidence, as one exhibit, as the papers constituting the selection list No. 89 of lands selected by the Southern Pacific Railroad Company, indemnity limits, main line, filed November 14, 1903, as Plaintiff's Exhibit 12-M.

Mr. Lewers: I object to the introduction of the exhibit, on the ground that it is not rebuttal testimony, but, if admissible or relevant, is part of the case in chief.

Mr. Mills: This, you will remember, is part of the testimony which we both agreed we would put in at some time before we closed the case, you stating that you would put it in in your defense if I didn't put it in at some time; and, without conceding that it is not rebuttal, I offer it under those circumstances.

Mr. Lewers: Why, I have not at this moment the distinct recollection of what the agreement was, but whatever agreement we made in connection with it of course I don't intend to go back on but abide by. I have certain certified copies myself that I have obtained since we closed our case that I expect to offer.

Mr. Mills: I will ask the Special Examiner at this time to extend into the record Plaintiff's Exhibit 12-M, with the understanding, if it is agreeable to you, Mr. Lewers, that the original of **[3100]** any of these papers may be returned, upon the substitution of certified copies.

Mr. Lewers: That is perfectly agreeable to me.

Mr. Mills: All right.

The papers last referred to and offered in evidence are marked "Plaintiff's Exhibit 12-M-L.L.", and are as follows:

(Said exhibit appears in volume of Exhibits.) **[3101]**

Q. Now, using that as a basis, as Plaintiff's Exhibit 12-M, for your testimony, and basing your answers on your recollection of what happened, will you give the history of that selection list?

Mr. Lewers: I object, on the ground that that is not rebuttal, and on the ground that the selection list and documents in connection therewith are the best evidence; that this is an attempt to vary by parol evidence the effect and purpose of documents received and filed in the office of the Visalia Land Office in the regular course of business and as a part of the official business of said office.

A. This selection list was rejected November 17th, 1903, by the Register and Receiver, on the ground that the lands applied for were embraced in territory suspended by the Commissioner of the General Land Office—suspended from disposition.

Q. By Mr. Mills: Was that under an order of suspension made in February, 1900?

A. February 28th, 1900, by wire, by telegraph.

Q. And was that order in full force and effect at the time this list was offered on November 14th, 1903?

A. It was.

Q. As to the lands involved?

A. It was. I could not state at this moment whether it was the lands or—Let's see. Wait a moment. I can tell you in a moment.

Q. Was not the whole township 30-23 embraced in the order of suspension? Is not that true?

A. That is true. It affected all the lands embraced in the list.

Q. Yes. That is, all the lands selected, you mean. Not the base lands?

A. The lands they attempted to select under this list.

Q. Do you know whether or not, after rejection on November [3102] 17th, 1903, by your office, the Southern Pacific Railroad Company filed an appeal from that rejection?

A. Yes; I believe an appeal was filed.

Q. Now, do you know, in general, whether the order of suspension during the pendency of that appeal, was revoked, as to these lands, among others?

A. It was.

Q. That was under an order, generally, of February 20th, 1904, wasn't it?

A. I believe that was the date; yes sir.

Q. And what date did you receive the order at your office?

A. I think it was February 26th, 1904.

Q. Did this list, which you say was retained in the office, at that time contain all of these papers that it now contains?

A. Yes sir; it has not been changed in any manner.

Q. Excepting as to the survey signed by yourself and Mr. Swain as Receiver? Is that true?

A. I refer to no papers having been taken from those accompanying the list and none added to it.

Q. Now, I call your attention to that portion of the list which constitutes the certificate of the Register and Receiver, which appears originally to have been dated "Visalia, November, 1903", and which has been cancelled with a pen in such way as to read now "February 26, 1904", and also to certain cancellations in red ink of the words "returned and denominated as mineral land or lands or—". Will you explain those, please?

A. When the list was received, this certificate had written in the words, "Visalia Novr."—

Q. And a blank space?

A. In a blank space.

Q. And what else?

A And the figure "3", after the figures "190".

[3103]

Q. Yes; making "1903"?

A. Yes sir. And owing to the fact that the list

could not be accepted at that time, the date was not completed nor was the certificate signed.

Q. Yes.

A. And after the return—No; after the revocation of the suspension, and a letter from the Commissioner of the General Land Office stating that owing to such revocation the list could be acted upon by our office, the matter was taken up at the date on which the letter was received.

Q. What date was that?

A. February 25th, 1904.

Q. Yes.

A. And the certificate was given that date and a line drawn through "Novr" in the date line, and the words—

Q. Wait a minute. What insertion?

A. And we added to the date line, "Feb'y 26", and the figure "4" after the figures "190", making the date of acceptance by our office February 26, 1904.

Q. In whose handwriting were the words "Visalia Novr" and the figure "3" on the date line?

A. I have no idea.

Q. Was that on there when you received it?

A. Yes sir.

Q. In whose handwriting is the crossing out of the abbreviation for "November" and the words "February 26, 1904"?

A. In mine.

Q. Now, what have you to say about the red-ink cancellation of the words "returned and denomi-

nated mineral land or lands, or" in this sentence, "and that the same are not, nor is any part thereof, returned and denominated as mineral land or lands, or claimed as swamp lands"; Who did that? **[3104]**

A. I crossed that out with a red-ink pen, for the reason that the second plat of that township filed had a mineral return covering the lands which they applied to select, and I made that change to have the certificate agree with the fact. We then—

Q. Just a minute.

Mr. Lewers: He has not finished.

Q. By Mr. Mills: To make it clear—the plat filed by whom, the plat of survey I mean.

A. The plat of the official survey of the township, which we received from the United States Surveyor General.

Q. Proceed.

A. Showing his approval. All I was going to state was that the certificate was then signed by the Register and Receiver.

Q. Now, I call your attention to Plaintiff's Exhibit E, Mr. Stewart, and will ask you if this plat, or a duplicate of it was on file in your office, and is that the plat to which you referred when you say there was one filed by the Surveyor General?

A. It is.

Q. Now, at this point in the record will you read the certificate as to the character of the lands?

A. This mineral return?

Q. Yes; the lands which you referred to as in Township 30-23, as being covered by this selection.

A. "Mineral land, (in Midway Min'l District) S.E. ¼ and W ½ of Sec. 14; all of Secs. 15 and 16; E ½ and S.W. ¼ of Sec. 17; S.W. ¼ and E ½ of Sec. 19; all of Secs. 20, 21, 22, 23, 24, 25, 26, 27, 28 and 29; E. ½ and N.W. ¼ of Sec. 30; N.W. ¼ and E. ½ of Sec. 32, and all of Secs. 33, 34, 35 and 36—surveyed by Duee, is regarded by him as to be more valuable for mineral than for agricultural purposes."

Q. Now, will you read the certificate of the Surveyor General, beginning here? **[3105]**

A. "The above map of Township No. 30 South, Range No. 23 East, Mount Diablo Meridian, California, is strictly conformable to the field notes of surveys thereof, on file in this office, which have been examined and approved. U. S. Surveyor General's Office, San Francisco, California, August 1st, 1902. W.S.Graham, U.S. Surveyor General for California."

Q. When, as a matter of fact, was that filed in your office?

A. May 16th, 1903.

Q. And on the copy which you have in your office does that appear by any notation, and, if so, what notation?

A. "U. S. Land Office, Visalia, Calif. Officially filed, after due notice, May 16, 1903. Geo. W. Stewart, Register."

Q. Now, what do the words, "after due notice", that you used in the last endorsement, mean?

A. When the official survey of a township or of part of a township is filed in our office, we given no-

tice to the public by having a copy posted in the office of the County Clerk of each county in our land district and in all of the post offices in the vicinity of the land, also in our own office, for a period of thirty days, such notice stating the date on which the plat will be officially filed.

Q. Now, referring to the endorsement on Plaintiff's Exhibit E, under the words "mineral lands", the part that occurs in parenthesis, "In Midway Min'l District", what does that mean?

A. Well, it can't refer to an organized mineral district, because there is only one in our land district, which is at White River, and it must necessarily mean a local term for a certain territory.

Q. What does "Min'l" mean?

A. I would take it to mean "Mineral."

Q. Now, how much of this land the descriptions of which you read, in comparison to the whole township, was there, in acreage, **[3106]** included in this survey? Was there more or less than half of the township?

A. More than half.

Q. Had all of the rest of the township been previously surveyed?

A. Yes sir.

Q. On what basis?

A. All except on estimated area of one hundred sixty acres in the north-east corner, designated as being in Tule Swamp on Buena Vista Slough.

Q. And what not?

A. The rest of it had been surveyed in 1893 and 1901. No.

Q. What about this here (showing.)

A. Crossed out about 1901.

Q. Are you correct in that?

A. No.

Q. What about this survey up here?

A. I hadn't noticed that. I would like to correct that statement. The northern portion of the township, with the exception of the estimated swamp land area noted, and the south-western part had been surveyed in 1856—by Brice M. Henry, in 1855, and approved in 1856.

Q. Now, the northern portion of the township was included within the boundary limits of the survey by Mr. Henry in 1855, was it not?

A. Yes sir.

Q. Generally speaking?

A. Yes sir.

Q. And also Section 31 and a part of Section 30?

A. Yes sir.

Q. Now, at the time that you canceled out the words referred to, "Returned and denominated as mineral land or lands, or" on[3107] February 26, 1904, will you explain why you did that?

A. Simply to make the certificate agree with the facts.

Q. What facts?

A. That the official plat showed a mineral return covering that—the lands sought to be selected.

Q. Then it was due to the presence in your of-

fice, as an official file, of the official plat of survey approved August 1, 1902, and filed in your office on May 16, 1903, a duplicate of which constitutes the Plaintiff's Exhibit E, that you canceled that portion of the certificate in order to have the certificate comply with the facts?

A. It was.

Q. Did you have in mind at that time, Mr. Stewart, the plat of survey to which you have just referred, returning these lands as mineral lands, and all of them?

A. Well, when an application to select or enter is filed, we must necessarily examine our tract book to ascertain if the land applied for is vacant and examine the plat book to ascertain its acreage and whatever facts may be shown by the plat book; and by this reference we discovered that that land was covered by a mineral return.

Q. Well, then you had in mind, did you not, the fact that the land had been returned as mineral, when you canceled those words out of the certificate?

A. We did. I did.

Q. Now, you say there were five copies. Did you do that on all of the copies of that date?

A. That is my recollection. My practice was to treat those all as original copies.

Q. Who makes up those forms of the certificates, affidavits and list of lands which constitute what we have termed the selection list of the railroad company of which selection list 89 is **[3108]** a type?

A. I don't know. This is list 89—

Q. What I mean is, are they prepared by your office—those forms?

A. No part of the papers are prepared by our office.

Q. State whether or not they are printed forms.

A. They are printed forms, all except the certificate of the Register of the United States Land Office at San Francisco regarding the base lands.

Q. Then, is all of the wording of the certificate as it appears here in printed form, excepting where blank lines have been left for dates or the endorsement of the amount of fees and the signatures of the Register and Receiver, in print?

A. Yes sir.

Mr. Lewers: It is not your contention, is it, that those forms are originally printed and prepared by the officers of the railroad company and not by the government?

Mr. Mills: No, my contention is that the printed form was made up by the railroad company to comply with the railroad's idea of the requirements of the Land Office.

Mr. Lewers: You don't deny, do you, that those forms were prescribed by the Land Office years ago?

Mr. Mills: Well, I don't deny or affirm anything. I am simply eliciting the fact as to where they are prepared.

Q. So far as you know, these were first produced by the railroad company in your office—these printed forms?

A. Well, they were received from the railroad company with the list.

Q. Does the name "Charles W. Eberlein" appear in print in the different affidavits and certificates, excepting where he is required to sign?

A. Where his name appears in the body of the affidavit or **[3109]** certificate, it appears in print.

Q. Now, as I understand your testimony, after the selection list 89, which was received on November 14, 1903, had been rejected by you, did you hold this selection list, Plaintiff's Exhibit 12-M, in your office?

A. Yes sir.

Q. And you state that you had crossed out, by red ink cancelation, those words that I have referred to?

A. That is my recollection. I am satisfied I did.

Q. What became of the other four?

A. One was forwarded to the General Land Office and three were returned to Mr. Eberlein, which was our usual practice.

Q. After you received the notice of the revocation of the suspension from the General Land Office, on February 26, 1904, what did you then do with Plaintiff's Exhibit 12-M?

A. We didn't receive the notice on that date. We had received the notice prior to that date, but the Commissioner's letter of that date—

Q. Now, aren't you mistaken about that? Wasn't that letter dated February 20th, and didn't you receive it on the 26th?

A. Yes; but that was not our first notice of the revocation.

Q. I am speaking now of the notice which you received on February 26th.

A. Yes; but as your question is framed—

Mr. Mills: Read the question, please.

(Question beginning line 12, this page, was read by the Special Examiner.)

A. (Continuing.) Well, that was not our first notice of the revocation.

Q. Well, I say, after you received the notice of February 20th, what did you do?

A. Well, after we received the notice of February 20th, we **[3110]** accepted the selection.

Q. In the form in which it now appears, with the words canceled, "Returned and denominated as mineral land"?

A. Yes sir.

Q. I show you this paper, Mr. Stewart, and ask you what it is.

A. This is a letter, signed—

Q. A letter or copy of a letter?

A. A copy of a letter, the original of which was sent to the Commissioner of the General Land Office, and a press copy of which is now in our office, signed by me and—

Q. As what?

A. As Register of the United States Land Office at Visalia, and transmitting to the General Land Office the said List 89 with the papers filed in the case.

Q. What is the date of this letter?

A. December 11, 1903.

Q. Is that a correct copy of the letter which was sent by you to the Commissioner?

A. That is a correct copy that has been compared with the press copy in our office.

Q. And where is it found in your office—the press copy?

A. The Commissioner's Letter Book, Volume 40, page 57.

Mr. Mills: I will offer this in evidence as Plaintiff's Exhibit 12-M, and will read it into the record.

Mr. Lewers: We make the same objection—that it is not rebuttal.

(The letter last referred to and offered in evidence is marked Plaintiff's Exhibit 12-N and is read into the record as follows:)

Q. By Mr. Mills: I show you this letter, Mr. Stewart, and ask you what it is, just generally.

A. This is a letter from the then Commissioner of the General [3111] Land Office, W. A. Richards, to the Register and Receiver of United States Land Office at Visalia.

Q. Dated when?

A. Dated February 20, 1904, referring to rejection by our office of said List 89, affirming our action in doing so, and calling attention to the revocation of the order of suspension made since the date of our rejection of the list.

Q. Is this the original letter which your office re-

ceived officially from the Commissioner of the General Land Office?

A. It is.

Q. Are you acquainted with the signature of W. A. Richards, the Land Commissioner at that time?

A. I am.

Q. And have you received, in response to correspondence with that office—

Mr. Lewers: I will admit that is Mr. Richard's signature.

Mr. Mills: All right.

Q. What are these endorsements on the back of the letter? Don't read them, but what are they, generally?

A. At that time it was our custom to note on the back of the letter the letter designation of the division in which it originated, the date on which written, the date of receipt at our office, and the substance in brief, the action taken.

Mr. Mills: We offer this letter, together with the endorsement, as Plaintiff's Exhibit No. 12-O, and will ask the Special Examiner to extend it into the record.

The letter last referred to and offered in evidence is marked Plaintiff's Exhibit 12-O-L.L. and is read into the record.

Q. I call your attention to this letter, Mr. Stewart. What is this?

A. This is a letter from myself, as Register of the United States Land Office at Visalia, to Charles W. Eberlein, Acting Land **[3112]** Agent of the Southern Pacific Railroad Company.

Q. Dated?

A. Dated March 5, 1904, and—

Q. Is this a copy of a letter?

A. And noticing the acceptance of list No. 89. This is a copy of a letter taken from the press copy book in our office.

Q. And where is that press copy to be found?

A. Registered letter book No. 7, page 105.

Mr. Mills: You will agree that this is a copy, won't you, Mr. Lewers? Do you know anything about it?

Mr. Lewers: I don't know.

Mr. Mills: We offer this in evidence, with that statement, and will ask the Special Examiner to extend it into the record.

The letter last referred to and offered in evidence is marked "Plaintiff's Exhibit 12-P L.L." and is read into the record.

Q. Now, referring to Plaintiff's Exhibit 12-M, which is the selection list, first rejected, and afterwards, the lands having been relieved from suspension, accepted February 26, 1904, did any patent issue on that selection at that time?

A. No sir.

Mr. Lewers: I move that the answer be stricken out, and object to the question on the ground that it calls for a legal conclusion by the witness.

A. (Continuing) Well, as a matter of fact, patent did issue on that selection, under the decision of the Supreme Court of the United States, and not upon any other selection, the same selection proceeding.

Q. By Mr. Mills: What was the reason it did not issue on that selection, if you know?

A. Just a moment. The form of your question said "at that time." **[3113]**

Q. Well, what was the reason?

A. The Commissioner called for a re-arrangement of the selected lands and designation of different bases in certain cases.

Mr. Lewers: You say "a re-arrangement of the selected lands"?

Q. By Mr. Mills: Was there some trouble with the bases offered for the selected lands?

A. Evidently. It was discovered in the General Land Office. That is a matter with which we had nothing to do.

Q. Now, did the railroad company file another list subsequent to that time, which is marked "List No. 89, lands selected by the Southern Pacific Railroad Company, indemnity limits, main line", bearing serial number "03149" and afterwards canceled to "03151"?

A. Yes sir.

Mr. Mills: Let this be marked for identification as Plaintiff's Exhibit 12-Q.

(The list last referred to is marked Plaintiff's Exhibit 12-Q-L.L.)

Q. Is this the list you refer to, which I hold in my hands and now hand you?

A. It is.

Q. That is marked for identification "Plaintiff's Exhibit 12-Q"?

A. Yes.

Q. When was that received at your office?

A. September 6, 1904.

Q. Was it sent by mail?.

A. I don't remember if it was sent by mail or express. We received papers at this time both ways from the Southern Pacific Company.

Q. You are positive it was received on September 6, 1904?

A. I am.

Q. And does it bear such an endorsement? **[3114]**

A. It does.

Q. In whose handwriting?

A. Mine.

Q. When was that endorsement made?

A. On the date on which it was received.

Q. Now, have you had sufficient dealings, in your official capacity, with the railroad company known as the Southern Pacific Railroad Company, to know whether that company was punctual in its correspondence with your office?

Mr. Lewers: I object to that as calling for vague and general conclusion, not defining any particular correspondence.

A. Well, I consider that they were as punctual or more punctual—more punctual, as a rule,—than any firm doing business with our office, or any person.

Q. Now, ordinarily, in your correspondence with the Southern Pacific Railroad Company, either by express or by mail, what space of time was necessary to get a letter or express package from that

company's office in San Francisco to your office at Visalia, basing your answer on your recollection during all the period of years that you have done business officially with that company?

A. In a few instances we have received correspondence, or papers, on the day on which they were written, but ordinarily, it was on the following day. I would state that when we received them on the date on which they were written, we got the same from the postoffice after the close of business hours. Please read my answer. (Answer read by Special Examiner.) "Correspondence and papers.

Q. Then if a paper was received from that company dated, September 6, 1904, either by express or mail or otherwise, on what date would the paper be sent from the office of the railroad company?

A. Well, if it was—

Q. That is, on what date, not earlier than what date? **[3115]**

A. I would expect it to be not earlier than the preceding day.

Q. Will you examine the papers which constitute this exhibit, "Plaintiff's Exhibit 12-Q", and compare them with the exhibit known as "12-M", all excepting the list of lands themselves, and state whether they are identical, and, if not, in what particulars? That is, exclusive of dates.

A. They appear to be, except the certificate signed by the Register and Reeciver.

Q. And in what particulars is it different from

the list filed November 14, 1903, known as "Exhibit 12-M"?

A. No portion of the printed part of the certificate is canceled.

Q. That is to say, the words "returned and denominated as mineral land or lands, or", are left uncanceled?

A. Yes sir.

Q. In the last exhibit?

A. Yes sir.

Mr. Mills: We offer this in evidence as Plaintiff's Exhibit 12-Q.

Q. By Mr. Lewers: Just a question. Do you have any knowledge of when that was mailed to your office, or sent by express?

A. I have no knowledge.

Q. By Mr. Mills: "You have no knowledge". What do you mean by that?

A. Well, I have no knowledge of the date when it was sent from San Francisco, except—no definite knowledge—except that I presume it was sent on the preceding day.

Mr. Lewers: Same objection to the introduction.

Mr. Mills: I will ask the Special Examiner to extend Plaintiff's Exhibit 12-Q into the Record.

The papers last referred to and offered in evidence are marked "Plaintiff's Exhibit 12-Q - L.L."**[3116]**

Q. By Mr. Mills: Do you know of anything in the exhibit itself which would indicate that it was sent later than September 1st?

A. Later than September 1st?

Q. Yes.

A. The certificate of the Register of the United States Land Office at San Francisco, bearing date of September 2, 1904.

Q. Was that date on there as it is now when you received it?

A. It was.

Q. Now, referring to the list of lands in Exhibit 12-Q, what differences, if any, are there between those and the list of lands in 12-M?

A. The lands embraced in the two lists are the same thing, but in the later list they were made to agree with the description given in the plat of official survey.

Q. In Plaintiff's Exhibit E?

A. In Plaintiff's Exhibit E.

Q. Now, when you say the lands are identical, what lands do you mean are identical?

A. The selected lands.

Q. Well, is that true of the base lands?

A. No sir.

Q. Are there any differences?

A. Some changes were made in the base lands.

Q. Have you compared the selected lands, as appearing by Plaintiff's Exhibit 12-M, and also the selected lands in 12-Q, with the certified copy of the patent which was issued to the railroad company in pursuance of its selection of lands in that township?

A. I have compared them with the certified copy; yes.

Q. Does the patent agree, in point of description

of the lands conveyed, with the lands under the selection columns in 12-M, the [3117] first list, of November 14th?

A. No; it does not. While it embraces the same land, the description does not agree in designation of lot numbers with the letter and official plat.

Q. Does the description, in respect of the lot numbers, in Plaintiff's Exhibit 12-Q which is the selection list received September 6, 1914, agree with the lands in the certified copy of the patent.

A. They do.

Q. Now, referring to 12-M, which was the list accepted by you on February 26, 1904, do you know whether or not the Commissioner of the General Land Office returned the list which was sent to him by you?

A. I have no independent recollection of it, but his letter states that it was returned, and from that letter, and a subsequent letter written from our office to Mr. Eberlein, I am satisfied that it was.

Q. Before referring to that letter, I call your attention to this letter, which appears to be first in date, and ask you what it is a copy of.

A. The same bears date of July 14, 1904, and is a letter signed by me and written to the Commissioner of the General Land Office, transmitting the proof of publication of notice of the selection—over my certificate, isn't it?

Mr. Lewers: What is the date of that letter?

Mr. Mills: July 14, 1904.

The Witness: Is my certificate there?

Mr. Mills: Well, that don't make any difference.

Q. Now, is this a correct copy of the letter which was sent by you to the Commissioner on that date?

A. This was compared with the copy in our press copy-book and found to be correct, and it appears in Commissioner's Letter [3118] Book Vol. 40, on page 380.

Q. In your office?

A. In our office.

Mr. Mills: We offer this in evidence as Plaintiff's Exhibit 12-R, and will ask the Examiner to extend it into the record.

(The letter last referred to and offered in evidence is marked "Plaintiff's Exhibit 12-R L.L.")

Q. Now, in reference to your statement that the list 12-M was returned to your office by the Commissioner, I call your attention to copy of a letter dated August 4, 1904.

Mr. Lewers: Just a moment. I want to enter an objection to the letter of July 14, 1904, because it appears that there was an enclosure, a part of the letter which is not offered with it. It is incomplete.

Q. By Mr. Mills: What enclosures are referred to, Mr. Stewart, in that letter?

A. Proof of publication, proof of payment of the cost of publication, and non-mineral affidavit; also the Register's certificate of posting copy of the notice in the Land Office.

Q. Now, referring to the letter which I hand you, which appears to be a copy of letter of August 4,

1904, will you state who it is addressed to, and by whom?

A. It is addressed to the Register and Receiver at Visalia, California, and signed by J. H. Fimple, Acting Commissioner of the General Land Office.

Q. Did you receive the original letter of which this is a copy?

A. Yes sir.

Q. Is this a correct and compared copy?

A. Yes sir.

Mr. Mills: We offer this in evidence as Plaintiff's Exhibit [3119] 12-S, and will ask the Examiner to extend it into the record.

The letter last referred to and offered in evidence is marked "Plaintiff's Exhibit 12-S L.L.

Q. I call your attention to the last paragraph of this letter, which reads as follows: "Such selections will not be permitted. Said list No. 89 is herewith enclosed, and you will return the same to the company in order that a new list may be filed, properly describing the lands selected by legal subdivisions, and the errors in the bases assigned can at the same time be corrected." Did you, in pursuance of that instruction, return the company's list—or, I mean, the list of lands selected by the company, which was returned by the Commissioner to you, to the Southern Pacific Railroad Company?

A. While I have no independent recollection of it, I am satisfied that I did.

Q. I show you this letter, Mr. Stewart, and ask you what it is a copy of.

A. This is a copy of a letter signed by myself as Register, on the form used in such cases supplied to us by the General Land Office.

Q. Dated?

A. Dated August 10, 1904, addressed to Charles Eberlein at San Francisco, and calling attention to the requirements contained in the Commissioner's letter of August 4, 1904, now marked as Plaintiff's Exhibit 12-S.

Q. Did you send the original of which this is a copy to Mr. Eberlein through the mails?

A. I did.

Q. And on the date which the letter bears, August 10, 1904?

A. Well, it was mailed on that date.

Q. Well, that is what I mean. **[3120]**

A. Yes sir.

Q. That is, you deposited it in the postoffice on that date?

A. Yes sir.

Q. Properly addressed to him?

A. What I meant was this: All of our service, where it is not made personally, is by registered mail; and if it arrives too late at the postoffice for their hour of closing their registered letters on that date, they forward it the next day, but we deposit it in the postoffice.

Q. Well, you deposited it in the mail on that date, properly addressed to Mr. Eberlein, on August 10, 1904?

A. Yes sir.

Q. By Mr. Lewers: Have you any independent recollection of that?

A. I have not.

Q. By Mr. Mills: And with the postage prepaid?

A. No postage. That is an invariable rule; there is never any postage.

Q. That is, because it was government mail, there was no postage?

A. No postage. But we did pay, when we had on a ten-cent registry fee, whatever the amount was that was required at that time.

Mr. Mills: We offer this in evidence as Plaintiff's Exhibit 12-T, and will ask the Examiner to extend it into the record.

The letter last referred to and offered in evidence is marked "Plaintiff's Exhibit 12-T-L.L." **[3121]**

Q. Has this been compared with anything at all, any record you have?

A. It is compared with the copy in our press copy-book. It was found in Registered Letter Book No. 7, page 469, said letter-book being a file in our office.

Q. And it is a true and correct compared copy?

A. It is a true, correct and compared copy.

Q. On September 12, 1904, which was the date, according to the endorsement, that the list of lands selected by the Southern Pacific Railroad Company, known as Plaintiff's Exhibit 12-Q was accepted, did you have on file in your office the Surveyor-General's plat of the lands involved in that selection, returning

those lands as mineral lands, reported to be more valuable for mineral than for agricultural purposes?

A. We did.

Q. Why was it that you did not cross out, then, by cancelation, the words "returned and denominated as mineral land or lands, or", in the sentence, "and that the same are not, nor is any part thereof, returned and denominated as mineral land or lands, or", in order to make your certificate comply with the facts?

A. It was a re-arranged list of the lands described in the list filed on November 14, 1903, and there were no notations to make on the tract book or plat book, and we had no occasion to examine either, and I had forgotten in regard to the mineral return.

Q. Then it was inadvertent on your part, or a mistake, was it?

A. Yes sir. Had there been occasion to look at the plat book, anything that would have called to my mind the amended return, I would have made the same erasure on that as I did on the one filed November 14, 1904.

Q. And put it up to the Commissioner, or the General Land Office, as to what disposition should be made upon that kind of a certificate? **[3122]**

A. Yes sir.

Q. I show you a letter which purports to be a copy of a letter signed by you, addressed to Charles W. Eberlein, dated September 6, 1904, and will ask you if this is a true, correct and compared copy of such a letter—original letter—sent by you, properly

addressed, to Charles W. Eberlein, deposited in the mails on that date.

A. It is.

Q. Where is that recorded in your office?

A. In the press-copy-book known as "Registered Letter Book" No. 7, page 485.

Mr. Mills: I will offer this in evidence as Plaintiff's Exhibit 12-U, and will ask the Examiner to extend it into the record.

The letter last referred to and offered in evidence is marked "Plaintiff's Exhibit 12-U - L.L."

Q. I show you what purports to be a copy of a letter dated September 14, 1904, addressed to Charles W. Eberlein, by yourself, and will ask you whether that is a true, correct and compared copy from the official records in your office, of the original letter deposited by you in the mails on that day, addressed to Charles W. Eberlein.

A. It is, and it was compared with the press copy letter in Register Letter Book No. 7, page 499.

Q. Where the same is recorded?

A. Yes sir.

Mr. Mills: We offer this in evidence as Plaintiff's Exhibit 12-V, and ask the Examiner to extend it into the record.

(The copy of letter last referred to and offered in evidence is marked "Plaintiff's Exhibit 12-V - L.L."

[3123]

Q. I show you copy of a letter sent by you to the Commissioner of the General Land Office, dated September 14, 1904, and will ask you if it is a true,

correct and compared copy, from the official records of your office, of the original letter sent by you to the Commissioner on that date by depositing the same in the mails.

A. It is. And it is found in our office in the press copy-book known as "Commissioner's Letter Book 40, page 457.

Q. That is the book you have been referring to right along as on file in your office, one of the files in your office?

A. One of the books; yes sir.

Mr. Mills: We offer that in evidence as Plaintiff's Exhibit 12-W, and will ask the Examiner to extend it into the record.

(The letter last referred to and offered in evidence is marked "Plaintiff's Exhibit 12-W - L.L.")

Q. Is this, now, the complete record, so far as you know, of the matters and things officially known to you in connection with the selection of the lands in this suit by the Southern Pacific Railroad Company, so far as your office is concerned?

A. I think it is. I think this even embraces the letter in regard to the fees.

Q. Now, during the pendency and consideration of this List No. 89, of the Southern Pacific Railroad Company, for the lands involved in this suit, and embraced in that selection list, was there, at any time, any evidence concerning the mineral or non-mineral character of this land presented to or considered by yourself as Register, or by the Receiver, of the United States Land Office at Visalia, California,

other than as appears in these papers which you have produced, that is, these two lists?

Mr. Lewers: I object to the question, on the ground that it is calling for irrelevant, immaterial and incompetent testimony, and is not rebuttal of any matter brought in the defense in this **[3124]** case.

Mr. Mills: What is the answer?

A. Nothing that I recall.

Q. What do you mean by "Nothing that you recall"? Was there any evidence at all offered to you as to the mineral or non-mineral character of these lands, excepting what we find in these two selection lists?

A. No sir.

Q. Did you forward to the General Land Office, at any time during the period I have mentioned, while that matter was being considered, any evidence at all of the mineral or non-mineral character of the lands involved in this suit, excepting what appears in those lists?

A. I think not.

Q. Well, you are sure of it, are you not?

A. I am quite satisfied that we did not.

Q. The only evidence which was offered during the pendency and consideration of this matter as involved in these lists was the non-mineral affidavits of Charles W. Eberlein, was it not?

Mr. Lewers: To which I object, on the ground that it is leading and suggestive, and is calling for the conclusion of this witness as to evidence received at

some other office than his own as well as evidence received in his office.

Mr. Mills: I am speaking now of your own office.

Q. Was there any evidence at all received at any time during the pendency or consideration of this list of lands.

A. And referring to this list?

Q. Referring to these particular lands, excepting the several affidavits, as appear in those lists, by Charles W. Eberlein, as Acting Land Agent of the Southern Pacific Company.

A. No sir; nothing relating to these lists.

Q. Did you forward to the General Land Office all of the **[3125]** evidence as to the mineral or non-mineral character of these lands which you considered—you and the Receiver considered?

A. We did.

Q. Referring to the—

A. Except this: We considered the return on the plat, which we did not forward for the fact that they had a copy in their own office, of course.

Q. Now, referring to complete correspondence, so far as the official files in your office show in respect to these lands which you say you have now produced, you don't mean by that, do you, the correspondence with reference to the suspension of these lands,—the telegrams of suspension?

A. No; I don't.

Mr. Mills: Will you be satisfied to have the extension in the record, after they are compared with these papers, without certified copies?

Mr. Lewers: Yes; on the condition that you produce all of them. There are two letters, as I read the record, that are not produced.

Mr. Mills: If we can find those, we will do it.

Mr. Lewers: They are two important letters, too.

Mr. Mills: Can you give me a citation to them?

Mr. Lewers: Yes. Letter of February 11th, and letter of February 20th, 1904. They are the most vital letters in the whole bunch. I know what they are.

Mr. Mills: I think those are already in evidence, Mr. Lewers. I think they were put in evidence down there in Washington,—those very letters.

Mr. Lewers: Yes; but the letters received by Mr. Stewart—that they were received by Mr. Stewart does not yet appear. They were sent from Washington. We have proved that much.

Mr. Mills: I think the copies were put in in Washington, **[3126]** weren't they?

Mr. Lewers: Yes.

Mr. Mills: In the record?

Mr. Lewers: Yes.

Mr. Mills: Well, I will admit that he received them, if they were addressed to him.

Mr. Lewers: I have not my transcript here, and, of course, not knowing that Mr. Stewart was going on the stand—

Mr. Mills: If you have got the letters, or can get them out of the transcript, I am willing to agree that if they were addressed to him they were sent to him and he received them.

Mr. Lewers: They are the letters, as I recollect it, reporting that the lands had been investigated by the agent sent out by the Land Department, and reported to be non-mineral.

Mr. Mills: There are no such letters in evidence, at all, as that.

Mr. Lewers: Well, those are the two letters; and I shall insist upon their being produced. If it is agreed they will be produced later, it is all the same to me.

Mr. Mills: You don't have any objection to our having the transcript of the record appear for these exhibits, and leave these exhibits in evidence, without furnishing certified copies, do you?

Mr. Lewers: Mr. Stewart has assured me that these were compared by himself and Mr. Swain, and he knows them to be correct. The certificate would add nothing to that; so I shall not ask it.

Q. By Mr. Mills: I call your attention, Mr. Stewart, to Plaintiff's Exhibits 9-B, 9-U, 9-C, 9-D, 9-E, 9-V, 9-W, 9-X, 9-Y, 9-Z, 9-F, 9-A, 9-G, and 9-H, and will ask you if you have made careful examination of those papers since you arrived in San Francisco.

A. I have. **[3127]**

Q. When did you arrive in San Francisco?

A. Tuesday morning of this week.

Q. These papers constitute the record of proceedings in the case of Louthain v. Munzer, a contest case pending in the office of the Register and Receiver at Visalia, California?

A. Yes sir.

Q. Did you go over each page of that record after you got here?

A. I think I examined every page there except those—except the certified copies of documentary evidence.

Q. Yes. That is, you examined all the oral proof.

A. Yes.

Q. Now, was that contest case heard before you and the Receiver at Visalia?

A. It was.

Q. Do you know whether the witnesses were sworn there and testified?

A. They were. I presided at the hearing.

Q. Now, basing your answer on your recollection of the testimony and the examination which you made of this record, can you now state whether each and every witness testified as appears by that record?

Mr. Lewers: To which I object, on the ground that it is calling for incompetent testimony. That is not the proper manner of identifying an official document, a transcript of evidence.

Mr. Mills: I suppose you will admit, as matter of law, that a bystander in a courtroom can testify as to what a witness testified to, won't you, Mr. Lewers?

A. I am satisfied that it is a correct transcript of the testimony of the several witnesses who testified at that hearing.

Q. Did you at that time receive daily copy of the transcript?

A. We did. **[3128]**

Q. And did you read and consider it daily?

A. I didn't read it all daily. I simply—The different witnesses corrected their testimony, and they made several corrections in our office—that is, the expert witnesses—as shown by the marginal notes, over the signature of myself or the Receiver.

Q. These are photostatic copies, are they not?

A. I suppose that is what they would be called.

Q. That is, they are photographic copies?

A. Yes sir.

Q. And do they show the signatures of yourself and the Receiver?

A. They do.

Q. At any place?

A. Yes sir.

Q. Who was that testimony extended by, that is, who took the shorthand notes and afterwards extended it?

A. T. A. Elliott and Mrs. A F. Southard.

Q. That testimony was taken under a stipulation that the transcript should be received by both parties to the contest as the original testimony as if signed and sworn to, that is, signed by the witnesses after being sworn to?

A. Yes sir; and the stipulation states that the testimony was to be taken by T. A. Elliott and Mrs. A. F. Southard.

Q. Yes. Do you know, as a matter of fact, whether they did take that testimony?

A. They did.

Q. Now, is that record, which you have now examined, and which constitutes all of the record in that

case, the same record which you transmitted to the General Land Office?

A. It is.

Q. That is, a certified copy of it?

A. A certified copy. There were several exhibits, of course, [3129] minutes, and so forth, that are not here; but that is a copy of the transcript of testimony.

Q. That is a copy of the original testimony?

A. Yes sir.

Q. Sent by you to Washington?

A. Yes sir.

Q. I call your attention to Plaintiff's Exhibit 9-A, which appears to be a certified photographic copy of your certificate, as Register, certifying that the hearing in the case of Guy Louthain, et al v. F. G. Munzer, et al., was duly had before said office, that is, the United States Land Office, at Visalia, California, on January 9, 1912, and following days, and that all witnesses, before testifying, were by yourself duly sworn to tell the truth, the whole truth and nothing but the truth, in said action. Then follows the following: "I further certify that the testimony at said hearing was taken in shorthand by T. A. Elliott and A. F. Southard, by stipulation entered into by said parties and made part of this record. In witness whereof I have set my hand", and so forth, "this 15th day of October, 1915. George W. Stewart, Register." "Official designation of Officer." Do you recognize your signature from that photographic copy?

A. I do.

Q. Did you sign that?

A. I did.

Q. And on what date did you sign it?

A. October 15, 1913.

Q. Do you know how that figure "5" came to be put after the figures, "191", instead of "3", making it "1915"?

A. I do not. It was an inadvertent error.

Q. Who did it?

A. I don't know whether it was the clerk in the office or myself. I very rarely touch the typewriter, but, sometimes, when [3130] he is busy, I do.

Q. Well, do you know that it was signed by yourself last October?

A. I do.

Q. By Mr. Lewers: And that it was not signed in 1915?

A. Yes.

Q. By Mr. Townsend: You were at the World's Fair in 1915, weren't you?

A. I believe I was.

Q. By Mr. Mills: I show you this letter. What is that?

A. This is a letter from the Assistant Commissioner of the General Land Office to the Register and Receiver of the United States Land Office at Visalia, stating that the transcript of the testimony in the case had been sent to Mrs. Southard for her certification.

Q. This is dated November 1, 1913. Do you know

the signature of C. M. Bruce, Assistant Commissioner?

A. I do.

Q. How do you recognize it?

A. From the many letters that we have received bearing his signature.

Q. In official correspondence?

A. Yes sir.

Mr. Mills: We offer this in evidence as Plaintiff's Exhibit 12-X, and ask that the Examiner extend it into the record.

Mr. Lewers: We object, on the ground that it is hearsay.

(The letter last referred to and offered in evidence is marked Plaintiff's Exhibit 12-X - L.L.")

Q. By Mr. Mills: Now, what are these papers I hand you, four in number?

A. Those are sheets from the serial number register in our office, which was forwarded to me since I came here, and I removed **[3131]** these from the serial number register today in order that it may be returned to the office for daily use. These are—

Q. Take the first one that you are going to use.

A. These are a record of the applications for patent for the Fuller's Earth No. 20 Placer Mining claim, embracing the south-west quarter of Section 24, Township 30 South, Range 23 East, M. D. M.

Mr. Mills: Better mark that for identification as Plaintiff's Exhibit 12-Y. (Paper last referred to is marked Plaintiff's Exhibit 12-Y - L.L.) We will offer this in evidence, and ask the Examiner to extend

it into the record in tabulated form as it appears here.

Mr. Lewers: I object to the introduction of that testimony on the ground that it is hearsay testimony of a matter taking place between other parties not parties to this litigation in any manner, shape or form, and not authorized to represent any of the parties to this litigation or to make any statements which would be binding upon any of the parties to this litigation; that it is not rebuttal testimony; that it is irrelevant and incompetent. And I ask that the same objection be considered as made to all similar documents, as I apprehend that you are going to offer three or four more of the same kind.

(The sheet of record last referred to and offered in evidence is marked "Plaintiff's Exhibit 12-Y - L.L.", and a copy thereof, certified by the witness as "Register" and furnished to the Special Examiner is filed as Plaintiff's Exhibit 12-Y - L.L.)

The Witness: I will state that the said mineral application bears "Serial No." 04010. Said notation also shows that on May 17, 1913, an adverse claim, numbered 04132, was filed, affecting said land.

Q. By Mr. Mills: Does this involve the contest which is generally known as the contest or protest of the Associated Oil Company, through certain locators to the mineral claim on the land of the Eight Oil Company through certain locators? **[3132]**

A. It affects certain lands embraced in the case of Louthain et al v. Munzer et al.

Q. I say, isn't it generally known as the contest

between the Associated Oil Company and the Eight Oil Company, through certain locators?

A. Well, the contest bears the title that I gave, but the Associated Oil Company appeared to be the parties in interest.

Mr. Lewers: I move that that be stricken out, as a conclusion of the witness, and on the same general grounds as the objection heretofore made to that class of testimony.

Q. By Mr. Mills: Do you know whether any attorneys who appeared for the Associated Oil Company in other cases, appeared in this case?

Mr. Lewers: I object, on the ground that that is irrelevant and immaterial, and not rebuttal testimony.

A. We had no cases where they appeared by name.

Q. By Mr. Mills: Well, where they were a party in interest, what attorneys appeared for them before the Land Office?

Mr. Lewers: I object, as calling for a legal conclusion, and as not the best evidence.

Mr. Mills: Well, this record shows they had an interest in this case, Mr. Lewers, by exhibits introduced by the attorneys for the Associated Oil Company showing that they owned the rights of the locators.

Mr. Lewers: I don't intend to argue my objection with you. I have made it.

A. Charles G. Lamberson and E. C. Farnsworth.

Q. By Mr. Mills: Yes. Who appeared, then, for

the locators, backed by the Associated Oil Company, in this protest on Plaintiff's Exhibit 12-Y?

Mr. Lewers: I object, on the ground that it is calling for the conclusion of the witness; the question assumes something that **[3133]** the witness has not testified to.

A. This application has not been involved in any protest. The hearing to which you refer related to some lands embraced in mineral application 02710, and Charles G. Lamberson and E. C. Farnsworth appeared for the protestants at that hearing.

Q. By Mr. Mills: Well, in those protest proceedings, were there any exhibits offered before you, for your consideration, showing a transfer to the Associated Oil Company of any interests of those locators?

Mr. Lewers: I object, on the ground that the documents, if any such exist, are the best evidence.

Mr. Mills: You may answer.

A. There were agreements or documents of some kind exhibited showing the Associated Oil Company to be the principal party in interest.

Mr. Lewers: I move that the last part of the answer of the witness be stricken out, as a conclusion, not the best evidence.

Q. By Mr. Mills: Will you explain these three sheets of paper, in detail, including also Plaintiff's Exhibit 12-Y. I will first have these others marked, in their order, 12-Z, 13-A and 13-B.

(The sheets last referred to, other than the sheet previously marked "Plaintiff's Exhibit 12-Y - L.L".

are marked respectively "Plaintiff's Exhibits 12-Z, 13-A and 13-B - L.L." inclusive.

A. Plaintiff's Exhibt 12-Y is a copy of the notation on our serial number register, and refers to mineral application 04010, just referred to. The notation thereon shows the filing of an adverse claim bearing serial number 04132, filed on May 17, 1913. On Plaintiff's Exhibit 13-A is a notation regarding said adverse claim, the adverse claimants being W. S. Lierly, G. L. Blosser, Mrs. H. J. Dover, Margaret E. Dover, Executrix of last will and [3134] testament of J. M. Dover, deceased, S. A. Quimby, W. A. McNeil, F. N. Kaufman, and J. W. Kay by W. F. Lierly, Agent and attorney-in-fact, and is against the mineral application 04010 just referred to, and embraces the same land.

Q. Which one are you referring to now?

A. That is the adverse claim.

Q. Who appears there as the attorney?

A. Edmund Tauszky, of 702 Sharon Building, San Francisco.

Q. He is the attorney for the Associated Oil Company, is he not?

A. I don't know.

Q. Do you know where the Associated Oil Company's offices are—what building?

A. I do not.

Q. All right.

A. Exhibit 12-Z is a copy of application—

Q. You need not read all those names. Say "so and so et al."

A. (continuing) For mineral claims, mining claims, embracing Lots 2, 3, 4, 5, 6, 7, 10, 11, 12, 13 and south half of northwest quarter of Section 24, Township 30 South Range 23 East, M. D. M., which has not been adversed.

Q. What do you mean by "adversed?"

A. When rival mineral claimants file in our office, during the period of publication of a notice of application for patent and adverse claim their right to the land, the same suspends all proceedings in our office until this adverse is disposed of in the courts. Upon the date upon which an adverse claim is received, we notify the adverse claimants and the applicant thereof, by registered mail, and also notify the Commissioner of the General Land Office, of the filing of the adverse claim. This stops all proceedings in the Land Depart- **[3135]** ment until we receive official notice of the closing of the case in the courts.

Q. Well now, in the case of Munzer v. Louthain, or Louthain v. Munzer, as to which you neglected to send in a certificate until it was called for in October last, what was the reason that record was sent in without the certificate in the first instance?

A. The application for patent was withdrawn.

Q. By whom?

A. By the mineral applicants.

Q. Well, who were the mineral applicants?

A. Munzer et al.

Q. Munzer, et al?

A. Yes.

Q. Now, were Munzer, et al., the record claimants?

A. They were.

Q. Backed by the Eight Oil Company.

A. We didn't know them as such until that hearing was had.

Q. Well, did you than know that they were backed by the Eight Oil Company?

A. We did, by the evidence that was introduced.

Q. Now, what was the reason that the certificate was not attached when you sent the record that the certificate was not attached when you sent the record in to the General Land Office?

A. The relinquishment of an entry or withdrawal of an application to enter or select closes a contest or protest case affecting the lands embraced in such entry or selection.

Q. What closes it, did you say?

A. The relinquishment of an entry or withdrawal of an application selected by another. The case was therefore closed **[3136]** in our office. It was formerly the practice to retain in our office these papers of all rejected applications on dismissed contests; but this was changed a few years ago, and now the papers in all closed cases are forwarded to the General Land Office, and, owing to this being a closed case and not to be decided by our office, I noticed, when transmitting it, that the usual affidavits and certificates were not attached, but didn't consider it necessary, and forwarded them without it.

Q. Now, was there a subsequent application

made, on the basis of the discoveries of the Associated Oil Company, by the original applications, or for any other reason, that you know of?

A. There was subsequent application made, based on discovery of oil, but I don't know by whom the discovery was made.

Q. And that application was made by the original applicants, was it not?

A. I am not certain that they were the same ones in each case, but I think they were. There were eight applicants.

Q. Yes. Now, what did the former protestant do in respect to that application, that is, the protestants who had been backed by the Associated Oil Company?

A. When the withdrawal of the application for patent was filed in our office, we notified the attorneys for the protestants.

Q. Who?

A. I don't know whether it was myself or the Receiver.

Q. I mean who did you notify?

A. Charles G. Lamberson and E. C. Farnsworth, both residents of Visalia.

Q. Yes.

A. We notified them of the withdrawal of the application. I will state that we notitfied Mr. Lamberson and attempted to [3137] notify Mr. Farnsworth, but he was out of his office. Mr. Lamberson came over and looked at the withdrawal, and said, "Well, that closes the case." Mr. Farnsworth came later

and asked to see the withdrawal, and I don't remember that he made any remark at all. A day or two Mr. Lamberson was in our office and we asked him if he intended to take any further action regarding the matter. He said he didn't, that their object was accomplished, which was the extinguishment of that application for the patent. Mr. A. H. Swain, Receiver of the Land Office was present, and said, "I suppose, then, there is no reason why the record may not be sent to the General Land Office."

Q. What I am getting at is this: Was there a subsequent application made, and, if so, what became of it? Was it adversed?

A. Yes. That is what I have just testified to.

Q. Yes. That is what you referred to when you said the subsequent application made by the locators, backed by the Eight Oil Company, was adversed.

A. Well, the subsequent application by the former locators; but nothing in the application to show by whom they were backed.

Q. I thought you said here that you knew, from something that was present before you for consideration during the contest of one of those cases—

A. No; that was with regard to the Louthain case. This becomes a new application, which has never been under protest, although the same lands were affected.

Q. Now, that has been adversed by whom?

A. The parties whose names I just read, W. F. Lierly and others.

Q. And those are the parties who were represented by the attorneys of the Associated Oil Company. **[3138]**

A. Represented by Edmund Tauszky in this adverse.

Q. Now, where is that pending? Do you know?

A. No; I don't.

Q. What court?

A. I don't.

Q. So far as you know, then, the Associated Oil Company is still after a patent to the lands on Section 24 and 26 of 30-23 and Section 30 of 30-24.

A. We don't know them to be connected with this second application.

Q. Well, do you know them to be connected with any application.

A. The evidence introduced in the hearing covering the Louthain application shows them to be parties in interest.

Q. Yes. Are they after a patent in that case?

A. Not that I know of.

Q. They have adversed it—the locators, represented by the Associated Oil Company, have adversed that application of the original locators in the Louthain case, have they not, according to your records? I mean the same locators you identified by the exhibits in the case as being connected with the Associated Oil Company and backed by them?

A. Not all of those mentioned in this adverse claim appeared at the hearing; but part of the adverse claimants appeared at the hearing.

Q. Well, are any of them locators identified in interest with the Associated Oil Company, who adversed the claim, is what I want to know.

A. The Associated Oil Company has not adversed the claim, but part of those who did adverse the claim were the same ones who appeared in the former hearing, in which the Associated Oil Company appeared to be interested. **[3139]**

Q. Referring to Plaintiff's Exhibit 13-B, what is it a record of?

A. This is the notation on the serial number register, and bears "Serial No. 02916," and is an application by The Eight Oil Company, by S. P. Wible, attorney in fact, for patent for the Fullers' Second Consolidated Placer Mining claim, embracing all of Section 30, Township 30, Range 24 East, M. D. M.

Q. Now, what is the present status of that applicaton for patent?

A. That was embraced in the hearing known as Cage v. The Eight Oil Company.

Q. Was that held before you?

A. Yes; held before our office.

Q. And is involved in these papers, in the certified copies introduced in this case of John D. Cage v. Eight Oil Company?

A. Yes sir.

Q. Now, what is the present status of the application?

A. After the hearing was completed, stipulations were filed extending the time for the protestants to file their brief. This they have done, but I can't state

on what date it was filed, for I have not the contest docket there.

Q. By "the protestants", you mean Cage et al?

A. Yes. Lamberson and Farnsworth were the attorneys.

Q. Now, what company is backing the locators or protestants known as "Cage et al.," against the Eight Oil Company?

Mr. Lewers—To which I object, on the ground that it is calling for incompetent testimony, as being hearsay, and not rebuttal.

Q. By Mr. Mills—From your knowledge, based on the records produced before you in that hearing.

Mr. Lewers—I add the further objection that the records **[3140]** themselves are the best evidence.

A. I would have no knowledge, except from the records, and the records show the Associated Oil Company were interested.

Mr. Lewers—Move that the answer be stricken out, on the grounds of the objection.

Q. By Mr. Mills—Now, as I understand you, the parties backed by the Associated Oil Company, who constitute the protestants to the application for patent for the Eight Oil Company for Section 30, 30-24, have recently filed their brief in that case?

A. Yes.

Q. And what holds up a decision in the case now?

A. The time for filing the answer—

Q. The reply brief?

A. —the reply brief has been fixed by stipulation;

but I don't remember the date on which that is to be filed.

Q. So that that matter is now pending before you, is it?

A. Yes sir.

Q. For decision.

A. And after the filing of the reply brief, the protestants will file their closing brief.

Q. I call your attention, Mr. Stewart, to the testimony, which appears in this record at pages 3541, 3542 and 3543, of Eugene Overton, a witness produced on behalf of the defense. At the bottom of page 3541, he says: "In April, 1909—I have not got the exact date—a protest and contest was filed as to the north-east one-quarter of Section 12, by P. Barrett. That was tried January 25th and 26th, 1910, in the Visalia Land Office. On October 3, 1912, it was decided against the contestant. Q. By Mr. Lewers: Decided in your favor? A. Decided in our favor." Do you know what that contest was about?

A. What it involved? **[3141]**

Q. Yes.

A. Yes. It involved the mineral character of the land.

Q. "Q. By Mr. Mills: In that particular case a re-hearing has been applied for and granted, has it not? A. Not granted, as far as I know. It has been applied for. I have not received notice it has been granted. It has been? Q. I am asking you the question. A. No; I don't know that it has been granted. Q. You know a re-hearing has been asked

for, however? A. I know a re-hearing has been asked for; yes. Then, as to the north-west quarter of Section 12, on April 8, 1909, a contest was filed by J. M. Dunn. That has never been tried. As to the south-east one-quarter of Section 12, in April, 1909, a contest was filed by O. O. McReynolds. That was tried at the same time as the last trial that I mentioned and decided at the same time in the same way. As to the south-west one-quarter of Section 12, in April, 1909, a contest was filed by G. W. Derby, and that was decided at the same time and in the same way. Q. Have re-hearings been asked in all those cases? A. I think so. Q. You don't know whether it has been granted, do you? A. I do not now. How, was that all? Mr. Mills—That is all." 3543, "Redirect Examination, by Mr. Lewers. Q. Those contests were contests where the contestants claimed that this was mineral land? A. They did, yes. Q. And you say the decision of the Register and Receiver was that it was not mineral land? A. That was the decision." Is that correct?

A. No sir.

Q. Can you refer to any book or file in your office which contains a copy of that decision?

A. Yes sir.

Q. What is this book I hand you?

A. This is the press copy book of decisions.

Q. In your office, kept in your official custody?

[3142]

A. Yes sir.

Q. And does this decision, beginning at page 148,

and extending through 149 to 150, represent the decision in the cases referred to by Mr Overton in his testimony?

A It does. Those three cases were consolidated at the hearing, and one decision covers the three.

Q Do you know Mr Overton as the attorney for the Buena Vista Land & Development Company?

A I do.

Q Do you know whether they were attempting to acquire mineral lands down there under agricultural entry?

A Well, they were attempting to acquire lands there under an agricultural entry.

Q Now, what was the gist of the decision in that case?

Mr Lewers — I suggest the decision in the best evidence, itself.

Mr Mills — I am going to introduce it in evidence.

Mr Lewers — Then why ask the gist of it at the same time?

A We found in favor of the claimants.

Q Read the last paragraph.

A The last paragraph is as follows: "We find from the evidence submitted that said land possesses little value for agricultural (grazing) purposes, and that, while the geological formation, and the development on adjacent territory, are such as to indicate that said land may by future development prove to be valuable for the production of oil, it was not at the date of hearing demonstrated to be mineral in

character. It is recommended that said protests be dismissed."

Mr Mills— We offer in evidence and will ask to have extended into the record this decision, beginning at page 148 and ending at page 150.

Mr Lewers — Absolutely no objection. [3143]

The decision last referred to, offered in evidence and extended into the record (Appears in volume of exhibits.)

CROSS-EXAMINATION
of
GEO. W. STEWART.

By Mr Lewers:

Q Mr Stewart, did you pick out all of the letters yourself that were produced here by you, or were they picked out and designated to you by anyone else?

A I think I picked them out myself. Mr Swain might possibly have picked out some of them.

Q What were you requested to pick out, and by whom?

A Well, I think by Mr Dezendorf, the Chief of Second Field Division — he requested copies of all correspondence relating to these lands.

Q Relating to these lands?

A Yes. That is, the selection.

Q That is, the lands involved in List 89?

A Yes sir.

Q I notice that one of the letters which you have produced here, being the letter of February 20, 1904,

addressed to the Register and Receiver at Visalia, and signed by W. A. Richards, Commissioner, refers to Letters "N" of this office, dated February 11th and 20th, 1904, which letters are not produced. Have you those letters?

A I think they are in our office. I am quite well satisfied they are.

Q Will you, when you return to your office, have similar copies made and compared by yourself and furnish them to the Commissioner in this case? **[3144]**

A Yes sir.

Q And consent that they may be entered as evidence in connection with this selection?

A Yes sir.

Mr Lewers — You have no objection to that, have you?

Mr Mills — Well, I don't know. I might have an objection for immateriality, or some other reasons. I don't know. I have never seen them myself, unless they are in the record as introduced at Washington.

The Witness — May I state why they were not?

Mr Lewers — Have you any other explanation to make in connection with that?

A The reason that copies were not presented with these was, as I remember them, they refer to the revocation of the suspension, and List 89 not being noted thereon, we didn't think of making copies. But they do involve this land.

Q Your attention was not called to the reference,

in this letter of February 20, 1904, to the letters which I am asking for, was it?

A No sir.

Q That is how you happened to overlook it?

A Yes sir.

Mr Lewers — I suggest, Mr Stewart, that you send those letters to me, and I will then offer them in evidence.

The Witness — Very well.

Mr Lewers — So that this record may be complete in that respect.

The Witness — Very well.

Q By Mr Lewers — I call your attention to a certified copy, under the seal of the United States General Land Office, of a letter dated July 14, 1904, addressed to the Commissioner of the General Land Office, and signed George W. Stewart, [**3145**] Register, together with certain endorsements and enclosures, and ask you if that is your signature.

A Yes sir.

Mr Mills — That is the same letter, isn't it?

Mr Lewers — Yes; but this has an enclosure.

Q I call your attention to a photographic copy of an affidavit of publication—

Mr Mills — Just a minute, until I see what it is.

Q By Mr Lewers — (continuing) — and ask you if that is the enclosure referred to in your letter; whether that is the enclosure referred to in your letter—that affidavit of publication.

Mr Mills — I object to the question, because the certificate on the copy offered Mr Stewart does not

identify those papers as a part of those enclosures — unless he can remember to say that they are the enclosures referred to in the letter.

A I am satisfied that they are.

Mr Mills — What is the answer?

A I am satisfied that they are.

Mr Lewers — I offer this certified copy, and all the documents contained within it, in evidence as Defendant's Exhibit 204, and ask that it be extended into the record.

Mr Mills — I think that is all in evidence already by the evidence of the plaintiff.

Mr Lewers — You are entirely mistaken.

The documents last referred to and offered in evidence are marked "Defendant's Exhibit 204 L. L." (Appears in volume of exhibits.)

Q I call your attention to certain papers, attached together, and certified under the seal of the General Land Office, under date of July 16, 1913, consisting of copy of [**3146**] letter signed by yourself, addressed to the Commissioner of the General Land Office, dated December 11, 1903, photographic copy of notice of appeal in regard to Southern Pacific Railroad Company's List No. 89, signed by William Singer, Jr., attorney for appellant, and William F. Herrin, counsel for appellant, together with notations and endorsements as the same appear on the record on file in the General Land Office, and ask you if that is the notice of appeal to which you have referred as being filed in that case.

A I am satisfied from my own signatures thereon, and the notations made, that it is.

Q It is? The same one?

A Yes.

Mr Lewers — We offer these certified copies, bound together, in evidence, as Defendant's Exhibit 205, and ask that they be extended into the record.

Mr Mills — No objection.

The documents last referred to and offered in evidence are marked "Defendant's Exhibit 205 L. L." and (Appears in volume of exhibits.)

Q Referring, Mr Stewart, to the serial numbers noted on the outside of the lists that have been introduced in evidence, state by whom those serial numbers are put on there.

A That number is only on one. I put that on.

Q That was put on in your office?

A Yes sir.

Q Where is the White River Mining District, which you say is the only organized district in the Visalia Land District?

A I think it embraces land in the Southern part of Tulare County, and the northern part of Kern, and while I don't know all the land it embraces, it is about in Township 24, in 21 South, of Range 29 East, M.D.M. [3147]

Q And what minerals, if any, are in that district?

A Gold is all that I know of, so far as applications have been made to our office for patent.

Mr Lewers — That is all.

REDIRECT EXAMINATION
OF
GEO. W. STEWART.

By Mr Mills:

Q There is one other question I would like to ask you: You don't mean to say that there are no organized mining districts in your district except that, from your own knowledge, do you?

A I know it from the business that has been transacted in the office, and that applications for patents in every other part of the district, except in the White River Mining District, show the notice of location to have been recorded in the offices of the county recorders and not in the office of the local mining district recorder.

Q Well, what I mean to say is, you have no knowledge excepting what appeared before you officially?

A. No.

Q On that question?

A No.

Q There might be organized mining districts there that you know nothing about unless it came before you officially?

A It might be. Not probable, not likely.

Q By Mr Lewers — What is that last answer?

A I say it might be, but it is not likely.

Q By Mr Mills — Now, when you stated in Plaintiff's Exhibit 12-P, which is the letter addressed by you to Charles W. Eberlein, of March 5, 1904, as follows: "As part of the land [**3148**] applied for has been returned as mineral, and all is in a township con-

taining mining claims within six miles of mining claims, it will be necessary to make publication," and so forth, what did you mean by saying it was in a township containing mining claims? Did you refer to Township 30-23, in which these lands were situated?

A I did. I consulted our records and found applications for mineral patents for lands in that township, and within six miles of the land embraced in this application, which might have been in the same township or in the one adjoining.

Mr Mills — That is all.

RECROSS EXAMINATION OF GEO. W. STEWART.

By Mr Lewers:

Q Was there any other order of publication, or any other publication, for this particular application or selection?

A I think not. The first—No order was made for the list filed November 14, 1903, from the fact that it was rejected. And after it was—Let's see. I don't remember whether there was any made or not after we accepted it.

Q It was accepted in February, 1904, was it not?

A February 26, 1904; yes. I think that was the only publication made.

Q There was no publication ordered or made after the filing of the second or amended list, was there?

A I think not. No.

Mr Mills — It is understood that all these papers introduced are not objected to on the ground that they are not certified to or are not the originals?

Mr Lewers — No. [3149]

Mr Mills — He can withdraw these, can't he, for his files, by furnishing copies?

Mr Lewers — Yes.

Whereupon the further taking of testimony herein was adjourned until Friday, December 12, 1913, at 10 o'clock A.M., at the same place.

On Friday, December 12, 1913, the further taking of testimony by Plaintiff herein was adjourned, subject to resumption on notice to the Defendant and within the time limited by former stipulation, if, after further consideration, it is desired by plaintiff's counsel to put in further documentary proofs; but it was stated by Mr Mills that counsel for plaintiff, so far as now advised, do not contemplate putting in any further oral testimony in rebuttal.

On Monday, December 22, 1913, by stipulation and agreement of counsel for the respective parties, Plaintiff offered in evidence a pamphlet entitled "Some Problems of the Formation of Coal, Reprinted from Economic Geology, Vol. 111., No. 4, June-July, 1908," by David White, and the same was marked, "Plaintiff's Exhibit 13-C - L.L." and (Appears in volume of exhibits.) [3150]

"UNITED STATES LAND OFFICE
Visalia, California.

.....1903

List No. 89.
LANDS SELECTED
By The
Southern Pacific Railroad Company.
Main Line

(In pencil)
Received Nov. 14, 1903.
Rejected Nov. 17, 1903.
Geo. W. Stewart,
Register.

(In pen)
Received Nov. 14, 1903
Geo. W. Stewart, Register.
Rejected Nov. 17, 1903.
Returned from G.L.O. with "N" of Feb'y 20, 1904.
Accepted Feb'y 26, 1904.
Geo. W. Stewart,
Register

(9-14-95-500.) **[3151]**

Office of the SOUTHERN PACIFIC RAILROAD COMPANY
San Francisco, California.

I, JOSEPH L. WILLCUT, Secretary of the SOUTHERN PACIFIC RAILROAD COMPANY, do hereby certify that CHARLES W. EBERLEIN was appointed Acting Land Agent of the said Southern Pacific Railroad Company, successor by consolidation to the Southern Pacific Railroad Company (of California), by the Board of Directors of said company, at a meeting held on the second (2nd) day of September, 1903, and that since that time he has

been continuously, and is now, the Acting Land Agent of the said Southern Pacific Railroad Company, successor as aforesaid.

(Seal) Southern Pacific Rail Road Company.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the Corporate Seal of the said Southern Pacific Railroad Company, the 7th day of November A.D. 1903.

(Ink Hand Writing) *Joseph L. Willcutt*
Secretary of the Southern
Pacific Railroad Company. [3152]

(10-22-03-100) Form 3303

LIST OF LANDS
IN THE
Visalia LAND DISTRICT, CALIFORNIA.
SELECTED BY THE
SOUTHERN PACIFIC RAILROAD COMPANY
Successor by Consolidation to the Southern Pacific Railroad Company (of California).

- - - - - -

THE UNDERSIGNED, the duly authorized Acting Land Agent of the SOUTHERN PACIFIC RAILROAD COMPANY, successor by consolidation to the Southern Pacific Railroad Company (of California), under and by virtue of the Act of Congress, approved July 27, 1866, entitled, "An Act Granting lands to aid in the construction of a Rail-

road and Telegraph line from the States of Missouri and Arkansas to the Pacific Coast," and the further Act, approved July 25, 1868, entitled, "An Act to extend the time for the construction of the Southern Pacific Railroad in the State of California," and the Joint Resolution of Congress, approved June 28, 1870, "Concerning the Southern Pacific Railroad of California", and under and in pursuance of the rules and regulations prescribed by the Commissioner of the General Land Office, hereby makes and files the following list of selections of public lands claimed by the said Company as inuring to it as such successor and to which it is entitled under and by virtue of the grants and provisions of the said Acts of Congress, and the location of the line of route of the Railroad and Telegraph of said Company; being in part for the Sixth (6th) section (Twenty (20) miles) of the same, commencing at Lardo and ending at Sumner which said section of road and telegraph has been duly accepted by the President of the United States, as provided in the aforesaid Acts and Joint Resolution of Congress. The selections being particularly described as follows:

(Ink hand writing) *Charles W. Eberlein.*
Acting Land Agent of the Southern Pacific Railroad Company. [**3153**]

S. C. 65

1

South of Base Line and East of Mount Diablo Principal Meridian Tracts within 20 miles of the line

of said Railroad in lieu of which the selected tracts are taken.

Remarks	Part of Section	No. of Section	No. of Town	No. of Range	Area Acres	100	Remarks No.
	The S.320 acres of Frac'l N2 of Section 1 in Rancho Las Uvas	1	10S	2E	320.		1
	S2	1	6S	2E	320		2
	Lot 3	3	13S	4E	36	49	3
	Lot 5	3	13S	4E	37	18	4
	Lot 1	15	8S	4E	38	64	5
	Lot 4	7	6S	3E	40	85	6
	Lot 13	21	8S	4E	36	40	7
	Lot 2	15	8S	4E	38	64	8
	Lot 3	15	8S	4E	38	64	9
	Lot 4	15	8S	4E	38	64	10
	N.E.4	31	5S	4E	160		11
	Lot 5	15	8S	4E	38	63	12
	Lot 6	15	8S	4E	38	63	13
	Lot 7	15	8S	4E	38	63	14
	S.E.4 of N.E.4	3	14S	4E	40		15
	Lot 14	21	8S	4E	36	40	16
	Lot 8	15	8S	4E	38	63	17
	Lot 9	15	8S	4E	38	62	18
	Lot 10	15	8S	4E	38	62	19
	Lot 8	11	11S	6E	27	04	20
	Lot 1 in N.E.4	27	11S	3E	13	78	21
	Lot 11	15	8S	4E	38	62	22

Lot 42B	5	12S	7E	2	08	23
Lot 40a	5	12S	7E	31	26	24
Lot 9	27	11S	6E	9	19	25
Lot 13	21	8S	4E	36	40	26
Lot 6	33	11S	6E	4	48	27
N.80 acres of N.W.4 in Rancho	27	11S	3E	80		28
Part of S.W.4 in Rancho	27	11S	3E	79	10	29
S.41.40 acres of N.W.4 in Rancho	27	11S	3E	41	40	30
All in Rancho	31	12S	2E	77	40	31
Lot 5	33	11S	6E	3	40	32
S.E.4 of S.W.4 in Rancho	1	13S	2E	40		33
E.2 of S.W.4	7	6S	3E	80		34
S.E.4 of N.E.4	31	11S	7E	40		35
S.W.4 of S.E.4	31	11S	7E	40		36
W.2 of W.2	31	9S	4E	160		37
The N.80 acres of that part of N.E.4 in Rancho	29	11S	1E	80		38
S.22 acres of that part of N.E.4 in Rancho	29	11S	1E	22		39
Lot 10 of Section	11	11S	6E	17	50	40
Carried forward				2.337	29	

[3154]

S. C. 65 2

South of Base Line and East of Mount Diablo Principal Meridian. Tracts within 20 miles of the line of said Railroad in lieu of which the selected tracts are taken.

Remarks	Part of Section	No. of Section	No. of Town	No. of Range	Area Acres	100	Remarks No.
	Brought Forward—				2.337	29	
	S.E.4 of SW4 in Rancho	1	13S	2E	40		41
	S.E.4	31	5S	4E	160		42
	Lot 6	31	5S	4E	80		43
	Lot 7	31	5S	4E	80		44
	N.E.4	7	24S	16E	160		45
	All that part of W2 of Sec. in Salis Rancho	25	10S	2E	185	61	46 47
	All that part of Section in Rancho San Andres	33	11S	1E	275	20	
	Lot 8	7	22S	19E	45	82	48
	S.E.4 of S.W.4	23	14S	2E	40		49
	N.40 acres of Lot 10 in SE4	7	13S	2E	40		50
	S.13 acres of Lot 10 in SE4	7	13S	2E	14		51
	Frac'l N.E.4 of N.E.4	1	13S	1E	35		52
	Lot 7	33	11S	6E	5	64	53
	Lot 6	27	11S	6E	31	44	54
	Lot 46	5	12S	7E	8	18	55
	Lot 1	3	13S	4E	15	36	56
	N.100 acres of Frac'l N2 of Sec. 1 in Rancho Las Uvas	1	10S	2E	100		57
	N 60 acres of S2 of SW4	5	24S	16E	60		58

S 20 acres of S2 of SW4	5	24S	16E	20		59
Lot 38a	5	12S	7E	19	95	60
Lot 16	21	8S	4E	36	40	61
Lot 1	15	11S	6E	3	60	62
Lot 5	11	11S	6E	32	65	63
Lot 4	27	6S	3E	8	56	64
Lot 7	27	11S	6E	24	66	65
Lot 4	33	11S	6E	15	81	66
Lot 1 Frac'l NW4 of NW4	19	9S	4E	57	20	67
Lot 11	11	11S	6E	22	81	68
Lot 48a	5	12S	7E	26	73	69
Lot 7	11	11S	6E	12	20	70
Lot 9	11	11S	6E	21	43	71
Lot 41a	5	12S	7E	18	65	72
S 2 of NE 4	5	22S	19E	80	00	73
That part of Section in Salsipudes Rancho	35	11S	3E	34	83	74
Lot 45b	5	12S	7E	4	50	75
NW4 of NW4 in Rancho Rincon De Sanjon	23	14S	2E	40		76
SW4	1	21S	19E	160		77
S.2 of SW 4	33	9S	4E	80		78
S.2 of SW 4	15	10S	6E	80		79
S.2 of NW 4	5	22S	19E	80		80
Carried forward				4.593	52	

[3155]

S C 65

(In pencil) 5

South of Base Line and East of Mount Diablo Principal

Meridian. Tracts within 20 miles of the line of said Railroad in lieu of which the selected tracts are taken.

Remarks	Part of Section	No. of Section	No. of Town	No. of Range	Area Acres	100	Remarks No.
	Brought forward				4593	52	
	Lot 2	19	9S	4E	54	84	81
	That part of NE4 in Rancho	27	11S	3E	26	30	82
	Frac'l SW4 of SW4 in Rancho	19	9S	4E	50		83
	Lot 5	27	11S	6E	27	23	84
	W 2 of SW 4	33	7S	5E	80		85
	W 2 of NW 4	33	7S	5E	80		86
	Lot 4	19	5S	4E	32	49	87
	Lot 8	33	11S	6E	6	68	88
	Lot 12	15	8S	4E	38	62	89
	Lot 1	21	10S	3E	1	83	90
	SW 4 of SW 4	9	7S	4E	40		91
	Lot 3	19	5S	4E	32	68	92
	Lot 6	11	11S	6E	6	89	93
	Lot 2	19	5S	4E	32	87	94
	Lot 10	27	11S	6E	6	24	95
	Lot 1	31	5S	4E	32	25	96
	Lot 8	27	11S	6E	9	80	97
	All of SW4 of NW4 Rancho Rincon	23	14S	2E	23	80	98
	Lot 12	11	11S	6E	15	81	99

Lot 5	1	21S	19E	39	69	100
W 2 of SE 4	1	21S	19E	80		101
Frac'l NW4	1	21S	19E	162	52	102
S 2	5	22S	19E	320		103
E 2	7	22S	19E	320		104
Total				6.114	06	

[3156]

(2-3-03-250.)

RAILROAD LIST.

South of Base Line and East of Mount Diablo Principal

List of Selections made at Visalia, California, upon th Indemnity List No. 89.

No.	Part of Section	No. of Section	No. of Town	No. of Range	Area Acres	100
1	N 2	15	30S	23E	320	
2	S 2	15	"	"	320	
3	Lot 1	17	"	"	36	92
4	Lot 2	17	"	"	35	63
5	Lot 3	17	"	"	39	19
6	Lot 4	17	"	"	40	00
7	Lot 7	17	"	"	35	74
8	Lot 8	17	"	"	36	24
9	Lot 9	17	"	"	40	84
10	Lot 10	17	"	"	40	
11	Frac'l SE 4	17	"	"	159	93
12	Lot 3	19	"	"	37	44

13	Lot 4	19	"	"	37	44
14	Lot 5	19	"	"	41	14
15	Lot 6	19	"	"	41	14
16	Lot 9	19	"	"	35	83
17	Lot 10	19	"	"	36	24
18	Lot 11	19	"	"	40	25
19	Lot 12	19	"	"	40	
20	N.27.04 acres of Lot 7	19	"	"	27	04
21	S.13.60 acres of Lot 7	19	"	"	13	60
22	N.38.62 acres of Lot 8	19	"	"	38	62
23	S.196 acres of Lot 8	19	"	"	1	96
24	N.31.26 acres of Lot 13	19	"	"	31	26
25	S.8.97 acres of Lot 13	19	"	"	8	97
26	N.36.40 acres of Lot 14	19	"	"	36	40
27	S.3.83 acres of Lot 14	19	"	"	3	83
28	N 2 of NE 4	21	"	"	80	
29	S 2 of NE 4	21	"	"	80	
30	NE 4 of NW 4	21	"	"	40	
31	N 77.40 acres of W 2 of N. W 4	21	"	"	77	40
32	S 2.60 acres of W 2 of N W 4	21	"	"	2	60
33	S.E. 4 of N. W 4	21	"	"	40	
34	N 2 of S W 4	21	"	"	80	
35	S W 4 of S W 4	21	"	"	40	
36	S E 4 of S W 4	21	"	"	40	
37	S E 4	21	"	"	160	
38	N 2 of N E 4	23	"	"	80	
39	N.22 acres of SE4 of NE4	23	"	"	22	
40	S.18 acres of SE4 of NE4	23	"	"	18	
	Carried forward				2.335	85

[3157]

2 (2-3-03-250)

RAILROAD LIST.

South of Base Line and East of Mount Diablo Principal Me List of Selections made at Visalia, California, upon thi Indemnity List No. 89.

No.	Part of Section	No. of Section	No. of Town	No. of Range	Area Acres	100
	Brought forward				2,335	85
41	S.W.4 of N.E.4	23	30S	23E	40	
42	N W 4	23	"	"	160	
43	N 2 of S W 4	23	"	"	80	
44	S 2 of SW 4	23	"	"	80	
45	S E 4	23	"	"	160	
46	Fractional N E 4	25	"	"	186	35
47	N.275.20 acres of W 2	25	"	"	275	20
48	S 44.80 acres of W 2	25	"	"	44	80
49	Lot 9	25	"	"	25	40
50	Lot 8	25	"	"	25	40
51	Lot 7	25	"	"	13	41
52	N 35 acres of Lot 10	25	"	"	35	
53	S 5 acres of Lot 10	25	"	"	5	
54	N 31.44 acres of Lot 11	25	"	"	31	44
55	S 8.56 acres of Lot 11	25	"	"	8	56
56	Lot 12	25	"	"	13	56
57	N 100 acres of N E 4	27	"	"	100	
58	S 60 acres of N E 4	27	"	"	60	
59	N 20 acres of N E 4 of NW 4	27	"	"	20	

60 S 20 acres of NE 4 of NW 4	27	"	"	20
61 N 36.40 acres of NW4 of NW4	27	"	"	36 40
62 S 3.60 acres of NW4 of NW4	27	"	"	3 60
63 N 32.65 acres of SW4 of NW4	27	"	"	32 65
64 S 7.35 acres of SW4 of NW4	27	"	"	7 35
65 N 24.66 acres of SE4 of NW4	27	"	"	24 66
66 S 15.34 acres of SE 4 of NW4	27	"	"	15 34
67 N 57.20 acres of N2 of SW4	27	"	"	57 20
68 S 22.80 acres of N2 of SW4	27	"	"	22 80
69 N 26.73 acres of SW4 of SW4	27	"	"	26 73
70 S 13.27 acres of SW4 of SW4	27	"	"	13 27
71 N 21.43 acres of SE4 of SW4	27	"	"	21 43
72 S 18.57 acres of SE4 of SW4	27	"	"	18 57
73 W 2 of SE 4	27	"	"	80
74 N 34.83 acres of NE 4 of SE4	27	"	"	34 83
75 S 5.17 acres of NE4 of SE4	27	"	"	5 17

76	SE 4 of SE 4	27	"	"	40
77	NE4	29	"	"	160
78	N 2 of NW 4	29	"	"	80
79	S 2 of NW 4	29	"	"	80
80	N 2 of SW 4	29	"	"	80
	Carried forward				4.589 17

[3158]

5 (In pencil)
(2-3-03-250)
RAILROAD LIST.
South of Base Line and East of Mount Diablo Principal Meri List of Selections made at Visalia, California, upon this Indemnity List No. 89.

No.	Part of Section	No. of Section	No. of Town	No. of Range	Area Acres / 100
	Brought forward				4589 17
81	N 54.84 acres of S 2 of SW 4	29	30S	23E	54 84
82	S 25.16 acres of S2 of SW 4	29	"	"	25 16
83	N 50 acres of W2 of SE4	29	"	"	50
84	S 30 acres of W2 of SE4	29	"	"	30
85	E 2 of SE 4	29	"	"	80
86	N 2 of NE4	33	"	"	80
87	N 33.05 acres of SW 4 of NE 4	33	"	"	33 05

88	S 6.95 acres of SW 4 of NE 4	33	"	"	6 95
89	N 38.62 acres of SE 4 of NE 4	33	"	"	38 62
90	S 1.38 acres of SE 4 of NE 4	33	"	"	138
91	NE4 of NW 4	33	"	"	40
92	N 33.11 acres of NW 4 NW 4	33	"	"	33 11
93	S 6.89 acres of NW 4 of NW 4	33	"	"	6 89
94	N 32.62 acres of SW 4 of NW 4	33	"	"	32 62
95	S 7.38 acres of SW 4 of NW 4	33	"	"	7 38
96	N 32.25 acres of SE 4 of NW 4	33	"	"	32 25
97	S 7.75 acres of SE 4 of NW 4	33	"	"	7 75
98	N 23.80 acres of NW 4 of SW 4	33	"	"	23 80
99	S 16.20 acres of NW 4 of SW 4	33	"	"	16 20
100	NE 4 of SW 4	33	"	"	40
101	S 2 of SW 4	33	"	"	80
102	SE 4	33	"	"	160
103	N 2	35	"	"	320
104	S 2	35	"	"	320
	Total				6.109 17

[3159]

STATE OF CALIFORNIA)
: SS:
CITY AND COUNTY OF SAN FRANCISCO)

I, CHARLES W. EBERLEIN, being duly sworn, depose and say: that I am the Acting Land Agent of the Southern Pacific Railroad Company, successor by consolidation to the Southern Pacific Railroad Company (of California); that the foregoing list of lands which I hereby select is a correct list of a portion of the public lands claimed by the said Southern Pacific Railroad Company, successor as aforesaid, as inuring to it to aid in the construction of the railroad of said Company from Lardo to Sumner for which a grant of lands was made by the Acts of Congress approved July 27, 1866, July 25, 1868, and June 28, 1870, as aforesaid; that the said lands are vacant, unappropriated, and are not interdicted mineral or reserve lands, and are of the character contemplated by the grant, being within the limits of the exterior ten (10) miles Indemnity Belt, on each side of the line of route for a continuous distance of twenty (20) miles, being for the sixth (6th) Section of said road, starting from a point in the N.E. 4 of Sec. 9, T. 28 S. R. 26 E. M.D.B. & M. and ending at a point in the N.E. 4 of Sec. 5, T. 30 S. R. 29 E. M.D.B. & M. and that the specific losses for which indemnity is claimed are truly set forth and described in said list, and that said losses have not heretofore been indemnified in any manner.

(Ink Hand Writing) *Charles W. Eberlein* (Seal)

Sworn to and subscribed before me, this 7th day

of November, 1903. Witness my hand and Notarial Seal.

(Notarial Seal) (Ink Hand Writing) *E. B. Ryan*
E. Black Ryan, Notary Public, City and County of San Francisco, Cal.
Eureka.
Notary Public in and for the City and County of San Francisco, in the State of California.

* * * * * * * * * *

(1022-03-100) Form 3308)

UNITED STATES LAND OFFICE,)
Visalia, Feb'y 26 1904)

We hereby certify that we have carefully and critically examined the foregoing list of lands claimed by the Southern Pacific Railroad Company, successor by consolidation to the Southern Pacific Railroad (of California), under the grant to the said Southern Pacific Railroad Company (of California), by Acts of Congress, approved July 27, 1865, July 25, 1868, and June 28, 1870, above mentioned, and selected by Charles W. Eberlein, and duly authorized agent; and that we have tested the accuracy of said list by the plats and records of this office, and that we find the same to be correct; and we further certify that the filing of said list is allowed and approved, and that the whole of said lands are surveyed public lands of the United States, and within the limit of the ex-

terior ten (10) miles, Indemnity Belt, on each side; and thatthe same are not, nor is any part thereof, (erasure in red ink) claimed as swamp lands; nor is there any homestead, pre-emption, State or other valid claim to any portion of said lands on file or record in this office.

We further certify that the foregoing list shows an assessment of the fees payable to us allowed by the Acts of Congress, approved July 1, 1864, and July 31, 1876, and contemplated by the circular of instructions dated November 7, 1879, addressed by the Commissioner of the General Land Office to Registers and Receivers of the United States Land Offices; and that the said Company has paid to the undersigned, the Receiver, the full sum of seventy-eight ($78.00) dollars in full payment and discharge of said fees.

(Ink Hand writing) Geo. W. Stewart, (REGISTER.
(Ink Hand writing) A. H. Swain, RECEIVER.

[3160]

(9-10-01-200) S C 34

SAN FRANCISCO, CAL., November 1903.

The Southern Pacific Railroad Company offers to pay under protest the expense of surveying the lands selected in the within list, because it claims to be exempt from such payment by provisions of the grant of lands to it by Congress.

(Ink Hand Writing) (*Charles W. Eberlein*
Acting Land Agent,
Southern Pacific R. R. Co.

UNITED STATES SURVEYOR-GENERAL'S)
OFFICE,)
SAN FRANCISCO, CALIFORNIA)
.....190)

I, ..., Surveyor-General for the United States, in and for the State of California, hereby report and certify that the Southern Pacific Railroad Company has this day filed with me, at San Francisco, a duplicate certificate of deposit No....., dated ....., to the credit of the United States, showing that the sum of $..... has been deposited as cost of survey, and $..... for office work, and that the said sums are the correct amount of the cost of survey and office work for the lands mentioned and described in the list of lands hereto annexed, to the extent of said list.

Survey, - - - - - $.....
Office Work - - - $.....

Total - - - - - $.....

IN WITNESS WHEREOF, I have hereunto set my hand and Official Seal.

.....
Surveyor-General.

* * * * * * * * * *

(10-22-03-100) Form 3304

STATE OF CALIFORNIA)
CITY AND COUNTY OF SAN FRANCISCO) ss:

CHARLES W. EBERLEIN being duly sworn deposes and says that he is the Acting Land Agent of the Southern Pacific Railroad Company, that he has

caused the lands selected in said Company's List No. 89 to be carefully examined by the agents and employees of said Company as to their mineral or agricultural character, and that to the best of his knowledge and belief, none of the lands returned in said list are mineral lands.

(Ink Hand Writing) *Charles W. Eberlein*

Subscribed and sworn to before me this 7th day of November, 1903.

(Ink Hand Writing) *E. B. Ryan.*

(Notarial Seal) E. Black Ryan. Notary Public City & County of San Francisco, Cal.

Notary Public in and for the City and County of San Francisco, State of California.

Eureka. [3161]

UNITED STATES LAND OFFICE,

San Francisco, Cal., November 12th, 1903.

I hereby certify that I have carefully examined List No. 89 of lands selected by the Southern Pacific Railroad Company in the Visalia District, Indemnity Limits, Main Line, and I find that those lands, therein described, which fall within the San Francisco Land District, and for which said Company seeks to take indemnity, are within the 20-mile limits of the reservation for said Company in the San Francisco Land District; that said lands have been lost to said Company, and that it is entitled to indemnity therefor.

(Ink hand writing) *A. B. Hunt.*

[3162] Register.

Plaintiff's Exhibit 12-N-L.L.

Department of the Interior
United States Land Office
Visalia, Calif., December 11, 1903.

Honorable Commissioner General Land Office,
Washington, D. C.

Sir:

November 4, 1903, the Southern Pacific Railroad Company presented in this office its list No. 89 for lands in T. 30 S., R. 23 E., M.D.M., and on 17th ultimo, the same was rejected on the grounds that the said township was suspended. Notice was served on C. W. Eberlein, Acting Land Agent of said Company on last-named date. We are this date in receipt of appeal from our rejection, and same is transmitted herewith together with papers in case and evidence of service of notice.

Very respectfully,
George W. Stewart,
[3163] Register.

Plaintiff's Exhibit 12-O-L.L.

W.O.C. H.G.P.

DEPARTMENT OF THE INTERIOR

N.
E.C.F. General Land Office
Washington, D. C. February 20, 1904.

Address only the
Commissioner of the General
Land Office.

- - - - - - - - - - - - o

Southern Pacific Railroad Company : Quasi Contest

- - - - - - - - - - - - o 2555.

Register and Receiver,

Visalia, California.

Sirs:

November 14, 1903, the Southern Pacific Railroad Company presented to your office for filing its list No. 89 embracing 6109.17 acres in sections 15, 17, 19, 21, 23, 25, 27, 29, 33 and 35, T. 30 S., R. 23 E., M.D.M. You rejected said application to select on the ground that lands in said township were suspended from disposition under the agricultural land laws by telegram "P" of this office dated February 28, 1900. December 11, 1903, the railroad company filed an appeal from your said decision and on the same day you forwarded the record to this office for consideration. Your action in rejecting the application to select was correct, under conditions then existing, but by letters "N" of this office, dated February 11th and 20, 1904, the sections hereinbefore described were relieved from suspension. It would therefore appear that said application to select may now be granted, if no other objection thereto exists. Quasi Contest 2555 is accordingly hereby closed and selection list No. 89 herewith returned for appropriate action.

Very respectfully,

W. A. Richards,

Commissioner.

WPW 16-20 [**3164**]

(Endorsement)
5-404 50874

"N"
Dated Feb'y 20, 1904
Rec'd Feb'y 26, 1904

Register and Receiver
and S. P. R. R. Co.

Notes revocation of
suspension of
lands in T. 30 S., R. 23 E.
M.D.M., embraced in S.P.R.R.
List No. 89.

Noted on records. [3165]
Plaintiff's Exhibit 12-P - L.L.

Department of the Interior
United States Land Office.

Visalia, Calif., March 5, 1904.

Charles W. Eberlein,
Acting Land Agent S.P.R.R. Co.,
San Francisco, Calif.

Dear Sir:

I enclose herewith accepted indemnity list No. 89 for lands in T. 30 S., R. 23 E., M.D.M.

Hon. Commissioner's letter "N" of February 20, 1904, affirmed action of this office in rejecting said location, but released land applied for from suspension and returned list for action of this office. Same

was accepted February 26, 1904, and has been noted on records of this office.

As part of the land applied for has been returned as mineral and all is in a township containing mining claims and within six miles of mining claims, it will be necessary to make publication of said list. This should be done at once.

Cery respectfully,

Geo. W. Stewart,
Register.

[3166]

(Plaintiff's Exhibit 12-Q -L.L.)

(In pencil 03151

UNITED STATES LAND OFFICE
Visalia, California
September 12, 1904.

List No. 89

LANDS SELECTED
BY THE
SOUTHERN PACIFIC RAILROAD COMPANY,
Indemnity Limits
Main Line
U. S. Land Office,
Visalia, Calif.
Received Sept. 6, 1904.
Accepted Sept. 12, 1904.
Geo. W. Stewart, Register.

(In pencil) Sent G.L.O. Sept. 14, 1904.
(9-14-95-500.)

Re-arranged in accordance with instructions in let-

ter "F", dated August 4th, 1904 from Acting Commissioner-General Land Office to Register and Receiver, Visalia, California.

Office of the SOUTHERN PACIFIC RAILROAD)
COMPANY,)
San Francisco, California.)

I, JOSEPH L. WILLCUTT, Secretary of the SouTHERN PACIFIC RAILROAD COMPANY, do hereby certify that CHARLES W. EBERLEIN was appointed Acting Land Agent of the said Southern Pacific Railroad Company, successor by consolidation to the Southern Pacific Railroad Company (of California), by the Board of Directors of said Company, at a meeting held on the second (2nd) day of September, 1903, and that since that time he has been continuously, and is now, the Acting Land Agent of the said Southern Pacific Railroad Company, successor as aforesaid.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the Corporate Seal of the said Southern Pacific Railroad Company, the 31st day of August, A. D. 1904.

(SEAL) SOUTHERN PACIFIC RAILROAD COMPANY

(Ink Hand Writing) Joseph L. Willcutt
Secretary of the Southern Pacific Railroad Company.

[3167]

(10-22-03-100) Form 3303

LIST OF LANDS
IN THE
Visalia Land District, California,
SELECTED BY THE
SOUTHERN PACIFIC RAILROAD COMPANY,
Successor by Consolidation to the Southern Pacific Railroad Company (of California).

. . . . .

THE UNDERSIGNED, the duly authorized Acting Land Agent of the SOUTHERN PACIFIC RAILROAD COMPANY, successor by consolidation to the Southern Pacific Railroad Company (of California), under and by virtue of the Act of Congress, approved July 27, 1866, entitled "An Act granting lands to aid in the construction of a Railroad and Telegraph line from the States of Missouri and Arkansas to the Pacific Coast," and the further Act, approved July 25, 1868, entitled "An Act to extend the time for the construction of the Southern Pacific Railroad in the State of California," and the Joint Resolution of Congress, approved June 28, 1870, "Concerning the Southern Pacific Railroad of California", and under and in pursuance of the rules and regulations prescribed by the Commissioner of the General Land Office, hereby makes and files the following list of selections of public lands claimed by the said Company as inuring to it as such successor and to which it is entitled under and by virtue of the grants and provisions of the said Acts of Congress, and the location of the line of route of the Rail-

road and Telegraph of said Company; being in part for the *sixth* (*6th*) section (*Twenty* (*20*) *miles*) of the same, commencing at *Lerdo* and ending at *Sumner* which said section of road and telegraph has been duly accepted by the President of the United States, as provided in the aforesaid Acts and Joint Resolution of Congress. The selections being particularly described as follows:

(Ink Hand Writing) *Charles W. Eberlein*
Acting Land Agent of the Southern
Pacific Railroad Company. [**3168**]

S C 65 1

South of Base Line and East of Mount Diablo Principal Meridian. Tracts within 20 miles of the line of said Railroad in lieu of which the selected tracts are taken.

Part of Section	No. of Section	No. of Town	No. of Range	Area Acres 100	Remarks No.
N. ½	11	21	19	320 00	1
E ½	7	22	19	320 00	2
Lot 10	31	23	23	36 90	3
Lot 5	17	24	24	36 00	4
Lot 8	3	23	19	39 78	5
S.W.¼ of N.E.¼	3	23	19	40 00	6
Lot 3	5	22	19	37 26	7
Lot 12	29	21	19	37 00	8
S.E.¼ of N.E.¼	3	23	19	40 00	9
S.W.¼ of N.W.¼	3	23	19	40 00	10

Lot 3	1	21	19	41	26	11
Lot 4	1	21	19	41	26	12
S.W.¼ of N.W.¼	1	21	19	40	00	13
S.E.¼ of N.W.¼	1	21	19	40	00	14
Lot 10	33	22	19	38	00	15
Lot 11	3	23	19	37	42	16
Lot 1	1	21	19	41	26	17
Lot 2	1	21	19	41	26	18
Lot 4	5	22	19	37	36	19
Lot 3	19	22	23	36	98	20
N.W.¼ of N.W.¼	27	21	19	40	00	21
S.E.¼ of N.W.¼	3	23	19	40	00	22
S.W.¼ of N.E.¼	1	21	19	40	00	23
S.E.¼ of N.E.¼	1	21	19	40	00	24
S.W.¼ of N.W.¼	21	22	19	40	00	25
Lot 13	21	21	19	40	30	26
N ½	17	22	19	320	00	27
E ½ of SW ¼	19	28	23	80	00	28
N E ¼ of S E ¼	33	22	19	40	00	29
N.W.¼ of S.W.¼	21	22	19	40	00	30
S.W.¼	1	21	19	160	00	31
S.W.¼	11	21	19	160	00	32
S ½ of N.W.¼	5	22	19	80	00	33
N.E.¼ of N.W.¼	19	28	23	40	00	34
S.E.¼ of N.W.¼	19	28	23	40	00	35
S.½ of N.E.¼	5	22	19	80	00	36
W ½ of S.E.¼	1	21	19	80	00	37
S.E.¼	19	28	23	160	00	38
Lot 3	19	23	22	13	10	39
N.W.¼ of N.W.¼	9	22	19	40	00	40
Carried forward				2915	14	

S C 65 2

South of Base Line and East of Mount Diablo Principal Meridian. Tracts within 20 miles of the line of said Railroad in lieu of which the selected tracts are taken.

Part of Section	No. of Section	No. of Town	No. of Range	Area Acres 100	Remarks No.
Brought forward				2915 14	
N E ¼ of S.E.¼	17	22	19	40 00	41
N.W.¼ of S.E.¼	17	22	19	40 00	42
S.E.¼ of S.E.¼	17	22	19	40 00	43
Lot 2	19	23	22	13 19	44
S ½	5	22	19	320 00	45
N.E.¼ of N.W.¼	33	22	19	40 00	46
S.W.¼ of N.W.¼	27	21	19	40 00	47
Lot 2	33	21	19	13 78	48
N.E.¼ of S.E.¼	21	21	19	40 00	49
S.E.¼ of S.E.¼	21	21	19	40 00	50
Lot 5	7	23	22	12 74	51
N.E.¼	33	22	19	160 00	52
N.E.¼	19	28	23	160 00	53
N.E.¼	7	24	16	160	54
Lot 1	7	24	16	80 00	55
S.E.¼ of S.E.¼	7	24	16	40 00	56
N ½ of Lot 10	7	24	16	40 00	57
W. ½ of N.W.¼	31	9	4	80 00	58
W.½ of S.W.¼	31	9	4	80 00	59
S.½ of S.E.¼	31	5	4	80 00	60

S.½ of S.W ¼	15	10	6	80	00	61
Lot 6	31	5	4	80	00	62
E.½ of S.W.¼	7	6	3	80	00	63
N.½ of S.E.¼	31	5	4	80	00	64
W.½ of S.W.¼	33	7	5	80	00	65
W.½ of N.W.¼	33	7	5	80	00	66
N.E.¼ of S.E.¼	7	24	16	40	00	67
N.W.¼ of S.E.¼	7	24	16	40	00	68
S.E.¼ of S.W.¼	23	14	2	40	00	69
W.½ of Lot 7	1	24	16	40	00	70
Lot 8	1	24	16	80	00	71
N.E.¼ of N.E.¼	19	24	16	40	00	72
S.E.¼ of N.E.¼	3	14	4	40	00	73
Lot 7	31	5	4	80	00	74
Lot 8	7	24	16	80	00	75
Lot 9	7	24	16	80	00	76
All that part in Rancho	33	11	1	275	20	77
Lot 8	7	22	19	45	82	
S.½	1	6	2	320	00	78
Total				6115	87	

[3170]

1. (2-3-03-250.)

RAILROAD LIST

South of Base Line and East of Mount Diablo Principal Meri List of Selections made at Visalia, California, upon this Indemnity List No. 89.

No.	Part of Section	No. of Section	No. of Town	No. of Range	Area Acres	100
1	N.½	15	30	23	320	00
2	S.½	15	30	23	320	00

3	Lot 1	17	30	23	36 92
4	Lot 2	17	30	23	35 63
5	Lot 3	17	30	23	39 19
6	Lot 4	17	30	23	40 00
7	Lot 7	17	"	"	35 74
8	Lot 8	17	"	"	36 24
9	Lot 9	17	"	"	40 84
10	Lot 10	17	"	"	40 00
11	Lot 5	17	"	"	40 00
12	Lot 6	17	"	"	39 93
13	Lot 11	17	"	"	40 00
14	Lot 12	17	"	"	40 00
15	Lot 3	19	"	"	37 44
16	Lot 4	19	"	"	37 44
17	Lot 5	19	"	"	41 14
18	Lot 6	19	"	"	41 14
19	Lot 9	19	"	"	35 83
20	Lot 10	19	"	"	36 24
21	Lot 11	19	"	"	40 45
22	Lot 12	19	"	"	40 00
23	Lot 7	19	"	"	40 54
24	Lot 8	19	"	"	40 58
25	Lot 13	19	"	"	40 23
26	Lot 14	19	"	"	40 23
27	N.½	21	"	"	320 00
28	N.½ of S.W.¼	21	"	"	80 00
29	S.W.¼ of S.W.¼	21	"	"	40 00
30	S.E.¼ of S.W.¼	21	"	"	40 00
31	S.E.¼	21	"	"	160 00
32	N.E.¼	23	"	"	160 00
33	N.½ of N.W.¼	23	"	"	80 00

34	S.W.¼ of N.W.¼	23	"	"	40 00
35	S.E.¼ of N.E.¼	23	"	"	40 00
36	N.½ of S.W.¼	23	"	"	80 00
37	S.½ of S.W.¼	23	"	"	80 00
38	S.W.¼	23	"	"	160 00
39	Lot 1	25	"	"	13 10
40	Lot 2	25	"	"	40 00
	Carried forward				2908 95

[3171]

2 (2-3-03-250)

RAILROAD LIST

South of Base Line and East of Mount Diablo Principal Mer List of Selections made at Visalia, California, upon this Indemnity List No. 89.

No.	Part of Section	No. of Section	No. of Town	No. of Range	Area Acres 100
	Brought forward				2908 95
41	Lot 3	25	30	23	40 00
42	Lot 4	25	"	"	40 00
43	Lot 5	25	"	"	40 00
44	Lot 6	25	"	"	13 25
45	W.½	25	"	"	320 00
46	Lot 9	25	"	"	40 00
47	Lot 8	25	"	"	40 00
48	Lot 7	25	"	"	13 41
49	Lot 10	25	"	"	40 00
50	Lot 11	25	"	"	40 00

51	Lot 12	25	"	"	13 56
52	N.E.¼	27	"	"	160 00
53	N.W.¼	27	"	"	160 00
54	S.W.¼	27	"	"	160 00
55	W.½ of S.E.¼	27	"	"	80 00
56	N.E.¼ of S.E.¼	27	"	"	40 00
57	S.E.¼ of S.E.¼	27	"	"	40 00
58	E.½ of N.E.¼	29	"	"	80 00
59	W.½ of N.E.¼	29	"	"	80 00
60	N.½ of N.W.¼	29	"	"	80 00
61	S.½ of N.W.¼	29	"	"	80 00
62	N.½ of S.W.¼	29	"	"	80 00
63	S.½ of S.W.¼	29	"	"	80 00
64	W.½ of S.E.¼	29	"	"	80 00
65	E.½ of S.E.¼	29	"	"	80 00
66	N.½ of N.E.¼	33	"	"	80 00
67	S.W.¼ of N.E.¼	33	"	"	40 00
68	S.E.¼ of N.E.¼	33	"	"	40 00
69	N.E.¼ of N.W.¼	33	"	"	40 00
70	N.W.¼ of N.W.¼	33	"	"	40 00
71	S.½ of N.W.¼	33	"	"	80 00
72	N.W.¼ of S.W.¼	33	"	"	40 00
73	N.E.¼ of S.W.¼	33	"	"	40 00
74	S.½ of S.W.¼	33	"	"	80 00
75	N.½ of S.E.¼	33	"	"	80 00
76	S.½ of S.E.¼	33	"	"	80 00
77	N.½	35	"	"	320 00
78	S.½	35	"	"	320 00
	Total				6109 17

[3172]

STATE OF CALIFORNIA,)
CITY AND COUNTY OF SAN FRANCISCO)SS:

I, CHARLES W. EBERLEIN, being duly sworn, depose and say: that I am the Acting Land Agent of the Southern Pacific Railroad Company, successor by consolidation to the Southern Pacific Railroad Company (of California); that the foregoing list of lands which I hereby select is a correct list of a portion of the public lands claimed by the said Southern Pacific Railroad Company, successor as aforesaid, as inuring to it to aid in the construction of the railroad of said Company from Lerdo to Sumner for which a grant of lands was made by the Acts of Congress approved July 27, 1866, July 25, 1868, and June 28, 1870, as aforesaid; that the said lands are vacant, unappropriated, and are not interdicted mineral or reserved lands, and are of the character contemplated by the grant, being within the limits of the exterior ten (10) miles Indemnity Belt, on each side of the line of route for a continuous distance of Twenty (20) miles, being for the Sixth (6th) section of said road, starting from a point in N.E. ¼ of Sec. 9 T. 28 S. R. 26 E. M.D.B. & M. and ending at a point in N.E. ¼ of Sec. 5 T. 30 S. R. 29 E. M.D.B. & M. and that the specific losses for which indemnity is claimed are truly set forth and described in said list, and that said losses have not heretofore been indemnified in any manner.

(Ink Hand Writing) *Charles W. Eberlein.* (Seal)
Sworn to and subscribed before me, this thirty-first

(31st) day of August, 1904. Witness my hand and Notarial Seal.

(Ink Hand Writing) *E. B. Ryan*

(Seal) E. Black Ryan, Notary Public. Eureka.

Notary Public in and for the City and County of San Francisco, in the State of California.

* * * * * * * * * *

(10-22-03-100) Form 3308

UNITED STATES LAND OFFICE.)
Visalia, Cal., September 12, 1904.)

We hereby certify that we have carefully and critically examined the foregoing list of lands claimed by the Southern Pacific Railroad Company, successor by consolidated to the Southern Pacific Railroad Company (of California), under the grant to the said Southern Pacific Railroad Company (of California), by Acts of Congress, approved July 27, 1866, July 25, 1868, and June 28, 1870, above mentioned, and selected by CHARLES W. EBERLEIN, the duly authorized agent; and that we have tested the accuracy of said list by the plats and records of this office, and that we find the same to be correct; and we further certify that the filing of said list is allowed and approved, and that the whole of said lands are surveyed public lands of the United States, and within the limit of the exterior ten (10) miles, Indemnity Belt, on each side; and that the same are not, nor is any part thereof, returned and denominated as mineral land or lands, or claimed as swamp lands; nor is there

any homestead, pre-emption, State, or other valid claim to any portion of said lands on file or record in this office.

We further certify that the foregoing list shows an assessment of the fees payable to us allowed by the Acts of Congress, approved July 1, 1864, and July 31, 1876, and contemplated by the circular of instructions dated November 7, 1879, addressed by the Commissioner of the General Land Office to Registers and Receivers of the United States Land Offices; and that the said Company has [**3173**] paid to the undersigned, the Receiver, the full sum of Seventy eight ($78.00) dollars in full payment and discharge of said fees.

(Ink Hand Writing) Geo. W. Stewart, REGISTER.
(Ink Hand Writing) A. H. Swain, RECEIVER.

* * * * * * * * * *

(9-10-01-200) S C 34

SAN FRANCISCO, CAL., August 31st, 1904.

The Southern Pacific Railroad Company offers to pay under protest the expense of surveying the lands selected in the within list, because it claims to be exempt from such payment by provisions of the grant of lands to it by Congress.

(Ink Hand Writing), *Charles W. Eberlein,* Acting Land Agent, Southern Pacific R. R. Co.

UNITED STATES SURVEYOR-GENERAL'S)
OFFICE,)
San Francisco, California.)
.....190 .)

I,....., Surveyor-General for the United States, in and for the State of California,

hereby report and certify that the Southern Pacific Railroad Company has this day filed with me, at San Francisco, a duplicate certificate of deposit No....., dated....., to the credit of the United States, showing that the sum of $.....has been deposited as cost of survey, and $.....for office work, and that the said sums are the correct amount of the cost of survey and office work for the lands mentioned and described in the list of lands hereto annexed, to the extent of said list.

Survey - - - - - $.....
Office work, - - $.....
Total - - - - - $.....

IN WITNESS WHEREOF, I have hereunto set my hand and official Seal.

.....
Surveyor-General.

* * * * * * * * * *

(10-22-03-100) Form 3304

State of California)
City and County of San Francisco.) SS:

CHARLES W. EBERLEIN, being duly sworn deposes and says that he is the Acting Land Agent of the Southern Pacific Railroad Company, that he has caused the lands selected in said Company's List No. 89 to be carefully examined by the agents and employees of said Company as to their mineral or agricultural character, and that to the best of his knowledge and belief, none of the lands returned in said list are mineral lands.

(Ink Handwriting) *Charles W. Eberlein.*

(Notarial Seal) Subscribed and sworn to before me this 31st day of August, 1904.
E. Black Ryan
Notary Public
City and County (Ink Handwriting) *E. B. Ryan*
of San Francisco Notary Public in and for the City
Cal. and County of San Francisco,
State of California.

Eureka. [3174]

UNITED STATES LAND OFFICE,
San Francisco, Cal., September 2nd, 1904.

I hereby certify that I have carefully examined List No. 89 of lands selected by the Southern Pacific Railroad Company in the Visalia District, Indemnity Limits, Main Line, and I find that those lands, therein described, which fall within the San Francisco Land District, and for which said Company seeks to take indemnity, are within the 20-mile limits of the reservation for said county in the San Francisco Land District; that said lands have been lost to said Company, and that it is entitled to indemnity therefor.

Ink Hand Writing) *A. B. Hunt*
Register.

[3175]

(Plaintiff's Exhibit 12-R - L.L.)

Department of the Interior
United States Land Office
Visalia, Cal., July 14, 1904.

Hon. Commissioner General Land Office,
Wasshington, D. C.

Sir:

Your letter "N" of February 20, 1904, returned for

acceptance selection list No. 89 of the Southern Pacific Company. Said list was accepted February 26, 1904. As the land embraced therein is in the vicinity of mining claims we required said company to have publication of same made. We have received proof of publication and payment of costs thereof and non-mineral affidavit. Said papers and Register's certificate of posting notice in office are transmitted herewith.

No contests, protests or objections have been filed in this office.

Very respectfully,

Geo. W. Stewart,

Register.

[3176]

(Plaintiff's Exhibit 12-S - L.L.)

1904-129481-133256 SSM

"F" DEPARTMENT OF THE INTERIOR F.C.D. F.I.W.

GENERAL LAND OFFICE,

WASHINGTON, D. C., August 4, 1904

Address only the

Commissioner of the General Land Office.

Register & Receiver,

Visalia, California.

Sirs:

By letter dated July 14, 1904, you forwarded the Southern Pacific Railroad Company's Indemnity List No. 89, of selections made on account of its main line grant.

Under date of July 25, 1904, the resident attorney

for the company called attention to certain mistakes in the designation of lost land in the above list, the mistakes arising either from the fact that the lost land described had been previously used, or from the fact that they are within the indemnity limits of the grant, and he asked permission to substitute proper losses in said cases.

A cursory examination of said list shows that it does not conform to the regulations governing railroad selections, the tracts selected being divided to conform to the area of the particular tracts assigned as the basis of the selection, without regard to legal sub-divisions. For example, the "North 275.20 acres of the W 1/2", Sec. 25, T. 30 S., R. 23 E., is selected in lieu of the portion of a certain Rancho located in an odd-numbered section, area 275.20 acres, the remainder of the west half of said Sec. 25, 44.80 acres, being selected elsewhere to said list in lieu of another loss equalling that amount.

Such selections will not be permitted. Said list No. 89 is herewith enclosed, and you will return the same to the company in [**3177**] order that a new list may be filed, properly describing the lands selected by legal subdivisions, and the errors in the bases assigned can at the same time be corrected.

Very respectfully,

J. H. Fimple

Acting Commissioner.

R.C.M. [**3178**]

(Plaintiff's Exhibit 12-T - L.L.)

4-485

DEPARTMENT OF THE INTERIOR
UNITED STATES LAND OFFICE

Visalia, Calif.,
August 10, 1904.

Charles W. Eberlein,
San Francisco, Cal.

Sir:

In reference to S.P.R.R.Co's Indemnity List No. 89 you are advised that under date of August 4, 1904, the Acting Commissioner of the General Land Office by reason of defective basis, being with regard to legal sub-divisions, returns said list to be delivered to you, that a new list may be filed properly describing lands selected by legal sub-divisions, and correctly assigning bases.

Sixty days from notice are allowed within which to comply with the requirements of the Commissioner, or to appeal from his decision to the Honorable Secretary of the Interior, and upon your failure to take action within the time specified the case will be reported appropriate action. A copy of the decision is inclosed.

Very respectfully,

Geo. W. Stewart,
Register.

(Plaintiff's Exhibit 12-U - L.L.)

DEPARTMENT OF THE INTERIOR
UNITED STATES LAND OFFICE

Visalia, Cal., September 6, 1904.
(Place)
(Date)

Charles W. Eberlein, Esq.,
San Francisco, Cal.

Dear Sir:

In the matter of S.P.R.R.Co's list No. 89, received this date, will state that after reading the Acting Commissioner's letter I am of the opinion that the fees should be paid. I think there is no doubt that one payment is enough; that is, that the amount of one payment is all that would be retained by the Government. But as the Acting Commissioner's letter states that "Such selections (as the original No. 89) will not be permitted," and requires "that a *new list* be filed", it would appear that the payment of the usual fee will be necessary to make the selection perfect.

In the case of certain homestead entries that have been disallowed for various reasons, on the presentation of new applications by same party we have required the payment of the usual fees and commissions, and the applicants thereafter made application for the repayment of the sum paid on the former entry.

In the case before us an *amended* selection was not called for, and no time was given for complying with the Commissioner's requirements; and it was proba-

bly an error on the part of this office to have allowed you sixty days; It was treated by the G. L. O. as a matter optional with your Company.

In matter of original No. 89 the Commissioner does not mention the payment of fees, and as he declined to accept the selection, I am rather of the opinion that our acceptance of fees before would be considered an error, and that they are subject to repayment on application.

Should the List be forwarded to the G. L. O. without the fees, and payment be called for by the Commissioner later, then, should an application (complete in every way) be made for any of the land described in the List, in the mean time, the selection might be defeated as to the tract thus brought in conflict.

I am of the opinion that the present *new List* should be made complete by the payment of the usual fees.

Very respectfully,
Geo. W. Stewart, Register.

[3180]

(Plaintiff's Exhibit 12-V - L.L.)

DEPARTMENT OF THE INTERIOR
UNITED STATES LAND OFFICE
Visalia, Cal., September 14, 1904.
(Place)
(Date)

Charles W. Eberlein, Esq.,
San Francisco, Cal.,

Dear Sir:

Enclosed herewith are returned three copies of new

List No. 89, also Receiver's receipt for payment of fees therefor. Same is reported G.L.O. this date.

Very respectfully,

Geo. W. Stewart,

Register.

[3181]

(Plaintiff's Exhibit 12-W - L.L.)

DEPARTMENT OF THE INTERIOR
UNITED STATES LAND OFFICE

Visalia, Cal., September 14, 1904.
(Place)
(Date)

Hon. Commissioner General Land Office,
Washington, D. C.,

Sir:

I transmit herewith S.P.R.R.Co.'s new List No. 89. Your letter "F" of August 4, 1904, declined to accept original List No. 89, and returned same to this office, which was returned to the Land Agent of said Company with copy of said letter on August 10, 1904, as per evidence attached hereto. Said new List was accepted by this office on the 12th instant.

Very respectfully,

Geo. W. Stewart,

Register.

[3182]

DEPARTMENT OF THE INTERIOR
340517 GENERAL LAND OFFICE
"B" WASHINGTON, D. C.
(in ink) Jul 16 1913
CRGO

I hereby certify that the annexed copies of papers

SOUTHERN PACIFIC CO.

(Rubber stamp) Jul 28 1913

LAW DEPARTMENT

are true and literal exemplifications from the originals in this office.

IN TESTIMONY WHEREOF I have hereunto subscribed my name and caused the seal of this office to be affixed, at the city of Washington, on the day and year above written.

(SEAL)

UNITED STATES GENERAL
LAND OFFICE.

C. M. Bruce

Assistant Commissioner of the General Land Office.

\- - - - -

AFFIDAVIT OF PUBLICATION.

340517 - 1 C

State of California) ss.
County of Kern)

C. L. McGee, being first duly sworn, deposes and says: I am over the age of twenty-one years and am now and have been during all of the times herein mentioned the chief clerk of the Echo Publishing Company, and as such chief clerk I have at all the times herein mentioned had control and management of all the advertisements that have appeared during said time in The Morning Echo; that The Morning Echo is a newspaper published daily (except Monday) in the city of Bakersfield, County of Kern, State

of California, by The Echo Publishing Company; that said paper is published for the dissemination of local and telegraphic news and intelligence of a general character and has a bona fide subscription list of paying subscribers. Said newspaper has been established and published in the said City, County and State for more than one year last past; said paper is not devoted to the interest nor published for the entertainment of any particular class, profession, trade or calling, race or denomination, or any number thereof; that a notice of which the annexed printed slip is a [**3183**] true copy was published in said paper in each and every issue thereof on the following dates, to-wit: April 14-15-16-17-19-20-21-22-23-24-26-27-28-29-30. May 1-3-4-5-6-7-8-10-11-12-13-14-15-17-18-19-20-21-22-24-25-26-27-28-29-31. June 1-2-3-4-5-7-8-9-10-11-12-14, 1904, and was published on each of said dates in the full and entire issue of said paper and in the newspaper proper and not at any time in a supplement thereto.

C. L. McGee.

Subscribed and sworn to before me, this 14th day of June, 1904 S. C. Smith,

Notary Public in and for the County of Kern, State of California.

(ANNEXED PRINTED SLIP)

Notice.

United States Land Office, Visalia, California, April 14, 1904.

To whom it may concern:

Notice is hereby given that the Southern Pacific

Railroad Company has filed in this office a list of lands situated in the township described below, and has applied for a patent for said lands; that the list is open to the public for inspection, and a copy thereof by descriptive subdivisions has been posted in a convenient place in this office, for the inspection of all persons interested and of the public generally.

Within the next sixty days following the date of this notice, protests or contests against the claim of the Company to any tract or subdivision within any section or part of section described in the list, on the ground that the same is more valuable for mineral than for agricultural purposes, will be received and noted for report to the General Land Office at Washington, D.C.

GEO. T. STEWART, Register.
A. H. SWAIN, Receiver.

"A"

Southern Pacific Railroad Lands. Visalia Land District. California. South Township 30. East Range 23. All of Sec. 15.

NE 1/4 and S 1/2 of Sec. 17.

NE 1/4 and S 1/2 Sec. 19.

All of sections 21, 23, 25, 27, 29, 33 and 35.

CERTIFICATE AS TO POSTING OF NOTICE

DEPARTMENT OF THE INTERIOR
United States Land Office
At Visalia, Calif.
June 29, 1904.

I, Geo. W. Stewart, Register, do hereby certify

that a notice, a printed copy of which is attached to the Affidavit of Publication herein, was by me posted in a conspicuous place in my office for a period of thirty days, I having first posted said notice on the 14th day of April, 1904, and remained posted to date hereof.

Geo. W. Stewart,
Register.

[3184]

340517 --3C

DEPARTMENT OF THE INTERIOR
UNITED STATES LAND OFFICE.

Visalia, Cal., July 14, 1904.

Hon. Commissioner General Land Office,
Washington, D. C.

Sir:

Your letter "N" of February 20, 1904, returned for acceptance selection list No. 89 of the Southern Pacific Company. Said list was accepted February 26, 1904. As the land embraced therein is in the vicinity of mining claims we required said Company to have publication of said made. We have received proof of publication and payment of costs thereof and non-mineral affidavit. Said papers and Register's certificate of posting notice in office are transmitted herewith.

No contests, protests or objections have been filed in this office.

Very respectfully,
Geo. W. Stewart,
Register.

- - - - - - - - - - - - -

34/59
129481

UNITED STATES LAND OFFICE,
Visalia, Cal., July 14, 1904.

Register transmits S. *R.* R. R. Co's selection list No. 89 *case* in. . . . . .

July 21/04 Refd to Div F. E. (illegible)
H. G. P.

Involving the. . . . . ,
Cos files
No ans. reed of Sec. . . . . .
Tp. . . . . R. F. W. (illegible).
Reference is had to letter. "N" of (Ect) . .
of Feby 20 1905 56
—
39

Copies to W. N. Mills, June 17 and 28, 1912.
(Some writing illegible)

Aug 4, 1904 To R. & R. returning list 89 with instructions. D. A. Chambers advised Wood

340517 — 4 C [3185]

340517 "B" DEPARTMENT OF THE INTERIOR
GENERAL LAND OFFICE.
WASHINGTON, D. C.

(in ink)
CRGO

I hereby certify that the annexed copies of papers are

SOUTHERN PACIFIC CO.
(Rubber stamp) JUL 28 1913
LAW DEPARTMENT.

true and literal exemplifications from the originals in this office.

IN TESTIMONY WHEREOF I have hereunto subscribed my name and caused the seal of this office to be affixed, at the City of Washington, on the day and year above written.

(SEAL)

UNITED STATES
GENERAL LAND OFFICE C. M. Bruce
Assistant Commissioner of the General Land Office.

DEPARTMENT OF THE INTERIOR
United States Land Office

Visalia, Calif., December 11, 1903.

Honorable Commissioner General Land Office,
Washington, D. C.

Sir:

November 14, 1903, the Southern Pacific Railroad Company presented in this office its list No. 89 for lands in T. 30 S., R. 23 E., M.D.M., and on 17th ultimo the same was rejected on the grounds that the said township was suspended. Notice was served on C. W. Eberlein, Acting Land Agent of said Company on last-named date. We are this date in receipt of appeal from our rejection, and same is transmitted

herewith together with papers in case and evidence of service of notice.

Very respectfully,

Geo. W. Stewart

Register.

Card with list to Div. C Dec. 21/1903

W 15 - 14125

Quasi 2555

45/57

211143

2 Enc. Recd. (illegible)

UNITED STATES LAND OFFICE.

Visalia, Calif.

Dec. 11, 1903.

Register transmits appeal
of S. P. R. R. Co. from rejection
of List No. 89 for land in suspended
T 30 S. R 23 E. M. D. M. 340517 - 2 A
15 - 14125
Involving the . . . . . .
Feby 14/04. Refd to Div. "N" (illegible)
Chf. Div.
tp. . . . . R. . . . . .
Ref to Div. F. Dec 19, 1903 67-43
A.B.W.

54

Wood 215

(Some writing illegible) [3186]

340517 —3 A United States Land Office
Visalia, California.

In Re Southern Pacific Railroad Co's List No. 89, selecting indemnity Lands of its Main Line grant; being parts of odd-numbered sections in Township 30 South, Range 23 East, Mount Diablo Base and Meridian.) *Notice of Appeal.*

To the Register and Receiver:

You will please take notice that the Southern Pacific Railroad Company appeals to the Commissioner of the General Land Office from your decision rendered on November 17th, 1903, rejecting the above-entitled list.

The list is in regular form, and the requisite fees were tendered, with presentation of the list for filing. The lands selected are vacant and unappropriated non-mineral lands, parts of odd-sections within indemnity limits of appellant's grant; nor is there any question about the sufficiency of the lieu bases used. The list was refused filing on the sole ground that "said township is suspended". In other words, the list would have been filed and approved but for an order of the Commissioner, made by telegram dated February 28th, 1900, to "suspend from disposition until further orders", the township containing these lands.

This appeal is based on the following grounds:

1. The Commissioner is without lawful authority to defeat, or by indefinite suspension of the lands injuriously delay, the operation of the Act of Congress of July 27th 1866 (14 Stat. 292) granting unto appellant the right to select those lands. The suspension order has now been in force nearly four years. If the Commissioner can lawfully suspend these lands for four years from selection by appellant, it would seem to follow that he may thus for all time suspend all lands from such selection. It is respectfully submitted that while the Commissioner may, in case of emergency, temporarily suspend particular lands to prevent fraudulent entry thereof, and the like, he is without lawful right to (particularly on ex parte representations), suspend for a longer time than is necessary to bring on a hearing, lands which but for such suspension appellant is entitled to select.

2. The Commissioner's order is that these lands be suspended "from disposition"; and the Register and Receiver erred in construing this to be an order forbidding indemnity selection thereof by appellant. The filing of this list would not have been a "disposition" of the land. If the lands are mineral in character, or any reason exists why they should not be patented to appellant, the facts can be ascertained as well after as before filing the list; hence, as beforesaid, the filing of the list would, in no sense, have been a "disposition" of the land.

It is most respectfully asked that the Register and

Receiver be directed to file this list as of the date it was presented.

Wm. Singer, Jr.,
Attorney for Appellant.

Wm. F. Herrin,
Counsel for Appellant.

(Side notation) 340517 - 4 A
No.....

U. S. LAND OFFICE. [3187]

Visalia, Cala.
In Re S. P. R. R. Co's
List No. 89, selecting In-
demnity Land of its Main
Line Grant.
340517 - 5 A
Notice of Appeal.
Filed December 11, 1903

. . . . . .

Geo. W. Stewart
. . . . . Register.

WM. SINGER, JR.,
Rooms 61-2, Union Trust Building,
San Francisco, Cal.
Atty for S. P. R. R. Co. [3188]

. . . . . .

Special Service
Division.

DEPARTMENT OF THE
INTERIOR,
General Land Office.

P.

Address only the
Commissioner of the General Land Office.

Bakersfield, Cal., July 13th, 1900.

Hon. Commissioner,
General Land Office,
Washington, D. C.

Exhibit No. 1 mentioned in this letter is map 89 — California filed in Div. L.

Sir:

In compliance with your instructions, see letter "P", W. E. V., Dec. 19, 1899, directing me to investigate and report upon the mineral or non-mineral character of certain lands located in "Townships 15, 16 and 17 S. Ranges 10, 11, 12 and 13 E., M.D.M., Township 27 S. Ranges 27, 28, 29 and 30 E., M.D.M., Township 30 S. Ranges 21 and 22 E., M.D.M., Township 31 S., Range 22 E., M.D.M. and Township 11 N., Range 23 W., S.B.M., California, which are alleged to be oil lands (mineral)."

I have the honor to report as follows:— Immediately after entering upon this investigation, I was confronted with indisputable facts that warrant me in stating that the lands in question, and very much of the contiguous country, *are valuable only for their mineral worth;* there are no agricultural lands in any part of the suspended district; the mineral possibilities are something wonderful, and I make the prediction that this will soon be the largest oil field in the United States, if not in the world. I have visited all of the territory that stands suspended, and I find no people engaged in farming, cattle raising, or sheep herding, in all this vast area of land; for the simple

reason that it produces nothing that will sustain man or beast; it is essentially mineral land, and from the present outlook, will soon be a great source of wealth to the State, quite likely the revenue that will be obtained from these well known oil fields will exceed all other mineral products of the state, within a very few years. One is filled with amazement to witness the amount of development work that has been accomplished already, and the oil industry here in southern California is but a year old. These vast oil fields represent millions upon millions of dollars, and settle the fuel question of the Pacific Coast for generations to come.

I mail you a most excellent map of the country where these lands are located; the red lines are the exterior bounds of the lands that are held in suspension, and I cannot recommend too strongly, the propriety of reclassifying same. Doubtless, here and there, parts of a Township might be set back again in the agricultural list, but if not done, the agriculturist will not suffer; there are positively no lands in all this large list that would bring five cents an acre, for farming or grazing purposes. But for mineral purposes, these same worthless lands have risen in one short year to a valuation of $1,500 per acre in many instances, and it is a rare thing to hear any of the known oil lands offered at less than $1,000 per acre.

I will mark the above map Exhibit No. 1, as it will necessarily play an important part in connection

with the many reports that will be forwarded to the department.

I also forward Exhibit No. 2; this is an album of photographic views that were taken under my personal direction, and represent different portions of the oil fields under consideration; they tell their own story in plainer and more eloquent [**3189**] terms than I can. I searched in vain for an opportunity to photograph the improvements of some of the many homestead entries that have been recently filed on these valuable mineral lands.

The fact is, every Homestead entry, or lieu selection made under the act of June 4, 1897 (30 Stat., 36), during the past year, on any of the lands now under investigation, have been fraudulently made; they were taken for their mineral worth. There are no agricultural improvements on any one of these fraudulent entries, but we find Derricks and Oil Wells, everywhere; oil tanks in countless numbers filled to overflowing, and in many instances oil being pumped into holes dug in the ground, for the want of transportation facilities; scores of eight, ten and twelve mule teams constantly on the go to the different depots with their precious loads of oil, the same to be shipped to all parts of the country, dozens and dozens of individuals constantly arriving from various portions of the world for the purpose of engaging in the oil industry in some form or another; scores of miners, mechanics and laborers constantly arriving, and are immediately set to work at magnificent wages; train loads of mining machinery ar-

riving at each of the Railroad depots, daily; lands that one year ago would not command $1.00 per acre, readily selling at this time as high as $1,500 per acre, and even higher; these, are among some of the reasons that induce me to declare to the Hon. Commissioner that the lands under consideration are MINERAL, pure and simple. I will make reports on 4-480 in all cases that come within the proper scope of such form. Said reports will prove conclusively that the lands under consideration are mineral.

As to the character of minerals that prevail in the tracts covered by your suspension, I will state that the following constitute the prevailing minerals to be found in paying quantities within the borders of the said lands, viz:— crude petroleum oil, asphalt, sulphur, fullers- earth, and gypsum; the first and last in fabulous quantities, asphalt in great abundance, and fullers earth in sufficient quantity to build strong hopes for its becoming a paying industry in the near future.

I have spent much time in collecting facts and figures regarding the cost of development work, already accomplished in the oil fields in this locality. It has been necessary for me to consult with or correspond with over two hundred and fifty different Corporations, that are actively engaged in some form or another, in the development of crude petroleum oil in various portions of the suspended lands under investigation. I have received replies from about one half of the number, and promises from many who are not yet ready to report.

The earnestness and good faith of those actively engaged in developing and producing oil in the Kern River Oil District will not be questioned; it is safe to say that $1,500,000 has been spent in development work by these fearless and honest miners. This vast expenditure has been spent in producing crude petroleum oil, principally in Townships 27, 28 and 29 S., Ranges 27, 28 and 29 E., M. D. M. This territory is now producing large quantities of oil, and shipping to the full extent that the operators can secure transportation facilities; every barrel has to be hauled from six to seven miles, by wagon; this is a tedious and slow means of transportation; the S. P. Co. are now building a branch line into the oil field, which will be completed within 20 days, and it is claimed that the oil output in this field will soon reach 5000 barrels per day, with a prospect of 10,000 per day within a years time. Oil is quoted at $1.00 per barrel f.o.b., at this point; one days income, viz:— $5,000 is more than the entire belt of suspended lands in the Kern River Oil District would command, under the most promising circumstances that it [3190] would be possible to invent, as an agricultural proposition.

I desire to call the attention of the Hon. Commissioner to the following fact; the City of Bakersfield is one of the oldest settled localities that there is in southern California. For many years, the County of Kern, in which these suspended lands are located, has been known as a cattle and sheep country; now mark this fact, notwithstanding that the principal revenue of the County was obtained from cattle and

sheep husbandry, these lands that are now in dispute lay but from four to six and seven miles from said Bakersfield; had they been of any worth as an agricultural proposition, it stands to reason that every acre of the same would most naturally have been homesteaded long ago; but, within one short year, every acre of this heretofore worthless land, has become of agricultural worth, and especially to those who are engaged in the furnishing of Forest Reserve Scrip for speculative purposes. And not one acre of this land has been taken except for the oil it has been demonstrated that it contains, and that in fabulous richness.

I desire to call the attention of the Hon. Commissioner to a class of mineral filings that are working almost as great an injury to this and other oil fields, as are the so called scrippers; numerous cases exist where combinations have been formed for the purpose of controlling vast areas of the public domain, ostensibly, under the United States laws that govern mineral filings on the public domain. In so far as I have been able to learn the facts of the case, without making an abstract of the lands that are thus held down by the combinations referred to above, said parties have placed mineral filings upon more than 250,000 acres of the public domain, in the counties of Kern and Fresno, alone. In order that the parties engaged in scripping the lands that are now known to be unmistakably mineral might have an argument in their favor, they caused to be made a complete and accurate list of said filings. They are attested, un-

der oath, and I assume that they are practically correct. This sworn statement shows that in Kern County alone, within a year 103 persons have located 8,248 placer petroleum mining claims of twenty acres each, an average of over eighty claims of 1,600 acres to the person, or a total of 164,960 acres.

The statement from Fresno County makes a similar showing covering the time between January 1, 1899, and March 1, 1900., 97 persons have located 5,983 placer petroleum claims of twenty acres each, an average of over sixty claims; 1,200 acres to the person, or a total of 119,660 acres.

The parties making these numerous filings, have made no sort of improvement or development; they would seem to be purely speculative in character, and many of them are patrolled, and otherwise held by force.

I have accumulated a mass of documentary evidence that goes to prove as conclusively as it is possible to do under existing circumstances, that quite all of the territory that you have suspended in connection with the oil lands of the San Joaquin Valley, California are mineral (oil). I am waiting on Mr. E. E. Bush of Hanford, Cal., and J. B. Treadwell, of San Francisco, for valuable reports that they are preparing, as experts, for the use of the Hon. Commissioner in connection with the matter in hand; I am promised said reports in a very few days, and will immediately forward the same with other documents to the Department. The affidavits that I have secured are connected with cases that will be immedi-

ately reported on form 4-480, and the same affidavits will be used in a large number of cases. I herewith present the names of upwards of forty good and true representative men of California, who have given me permission to use their names in [**3191**] any court, at any time, as witnesses to prove that the lands under suspension are mineral:— E. E. Bush, Hanford, Cal., C. H. Congdon, Bakersfield, Cal., W. E. De Groot, Los Angeles, Cal., C. A. Canfield, Los Angeles, Cal., Milton McWhorter, Bakersfield, Cal.; W. H. Shafer, Selma, Cal., Timothy Spellacy, Bakersfield; J. J. Mack, Bakersfield; also of the same place, Jno. P. Kerr, W. M. Spencer, H. P. Bender, J. M. Keith, Walter James, J. M. Jameson, H. W. McCray, T. L. Reed, and Alvin Fay; also J. A. Stroude, Oakland, T. P. Spiers, San Jose, W. E. Knowles, Oakland, C. A. Fuller, Oakland, Maurice V. Samuels, San Francisco, W. T. Sesnon, Geo. L. Hoxie, Fresno, Hanford, W. S. Badger, Fresno, W. F. Chandler, Selma, J. B. Treadwell, San Francisco, W. F. Sesnon, San Francisco, H. H. Blood, San Francisco, E. L. Doheney, W. P. Book, and Jos. A. Chanselor, of Los Angeles; A. B. Butler, Fresno, I. W. Ross, San Francisco, G. V. Sessions, Sacramento, and Chas. S. Young, of San Francisco, all of California. Each and every one of these gentlemen are calculated to make first class witnesses; they understand the gravity of the question under investigation; I have talked with every one of the number, and as before stated, they are quite willing to respond whenever called upon. I have selected them because they will know what they are

talking about when put upon the witness stand, or in any other manner that it is possible the Government wishes to call upon them. I want to say right here that I might have extended this list to 100 if necessary. The list that I present represents expert miners, bankers, merchants, professional gentlemen, and hardy miners.

I have written and revised several reports to forward the Hon. Commissioner in the matter now under consideration; so manifold have been the changes that have occurred of grave import, since entering upon this investigation, that one after the other have been cast aside in consequence of their inferiority; this, I forward as a preliminary; the interests that are involved require long and faithful study; I am doing the best that I know how; I will send in a special report recommending the immediate suspension of *all* filings that have been made under the Act of June 9, 1897; also all homestead entries that have been made, since March 1, 1899. I of course refer to such as has been made within the bounds of the suspended lands; there is not one of them that will stand fire, after a report has been perfected on form 4-480.

I wish it were possible for me to properly impress upon the Hon. Commissioner the vast importance of the matter under consideration; it cannot be overestimated; should the lands under investigation be restored at this time, scrippers and would be homesteaders would soon cover all the territory involved in the suspension. It is idle to talk of these lands from an agricultural standpoint; a sheep could not

exist on 1000 acres of it, and it would be quite impossible for a homesteader to make a living on 50,000 acres, provided he depended on the surface of the soil from which to make it.

I will forward the remaining papers relating to this matter at the very earliest day; I am quite sure, within five days.

Very respectfully,

Jay Cummings.
Special Agent, G. L. O.

———oOo———

(Endorsement on Back)

1901 - 29536.19

Encl 3
U. S. General Land Office,
Received Jul 21 1900 B 20

96787 124

[3192]

Jay Cummings,
Bakersfield, Cal.
July 14th, 1900.

- - - - - - - - - - - - -

Makes preliminary report in the matter of letter "P"., W. E. V., December 19, 1899, directing that certain lands located in the Los Angeles, and Visalia Land District, California, be examined and reported upon as to the allegation that they were oil lands (mineral).

- - - - - - - - - - - - -

Ackd July 21, 1900
May 23, 1902 Refd to N

H. H. J.

Asst. Chief R

N Valk. **[3193]**

(Plaintiff's Exhibit 12-X - L.L.")

(Rubber stamp) Nov. 6 1913 Nov. 6 1913

In reply please refer to Visalia 02710 "N" HHH
1X (In pencil) W.J.H.
(In pencil) DEPARTMENT OF THE INTERIOR
H.H.H. GENERAL LAND OFFICE
WASHINGTON
Nov. 1, 1913.

Address only the
Commissioner of the General Land Office.

Information.

Register and Receiver,
Visalia, California.

Sirs:

Referring to the protest of Guy Louthain, et al. v. F. T. Munzer, involving mineral application 02710, you are advised that I have forwarded the transcript in this case to Muskogee, Oklahoma, where, I am informed, Mrs. A. H. Southard is now employed, in the Union Indian Agency, for certification by her. Forward all papers in this case, including exhibits, which may be filed in your office, by special letter.

Please report also whether or not the protestants were specially advised of the withdrawal of this ap-

plication, and furnished you their written consent to such action.

Very respectfully,
(Signed) C. M. Bruce,
Assistant Commissioner.

[3194]

4-051

SERIAL NO. 04010 NAME ADDRESS KIND

Frank G. Munzer, Charles F. Haberkern, S. P. Wible, H. I. Tupman, W. E. Richardson, W. H. McKittrick, Frances Stark Packard individually and as guardian for Paul Stark Packard, Alice Rice individually and as executrix for Frank S. Rice —by Frank G. Munzer, Atty-in-fact—Bakersfield, Cal. DATE

DESCRIPTION OF LAND SW ¼ SECTION 24 TOWNSHIP 30 RANGE 23, AREA 160

Fullers No. 20 placer mining claim.

DATE.	NOTATIONS.
March 6 '13	Application presented. Receipt No 1120600
" 24 '13	Form 4-024b, issued, duplicate & 1 copy sent G.L.O.
May 17 "	Adverse claim 04132 filed.
June 14 "	C.F.D. requests Final Cert. be withheld.
" 30 "	Cert. of posting in office prepared. No final papers filed. Payment not made.

Papers sent G.L.O. with June 1913 returns.

July 9 " Aff's publication and continuous posting filed.

Aug. 14 " Aff's. sent G.L.O.

Plaintiff's)
Exhibit)
12-Y-L.L.)

10422

Mineral

NOTATIONS.

U. S. Land Office,
Visalia, California.
December 13, 1913.

I hereby certify the foregoing to be a full, true and correct copy of the notations on the Serial Number Register in this office, relating to mineral application No. 04010.

(Ink hand wtiting) Geo. W. Stewart,
Register.

[3195]

PLAINTIFF'S EXHIBIT 12-Z/. 4-051.

KIND: Mineral Name ADDRESS

Frank G. Munzer, Chas. F. Haberkern, S. P. Wible, H. I. Tupman, W. E. Richardson, W. H. McKittrick, Frances Stark Packard individually and as Guardian of Paul Stark Packard, Alice Rice individually and as executrix of Frank S. Rice, by Frank G. Munzer, Attorney-in-fact, Bakersfield, Cal. DATE

DESCRIPTION OF LAND LOTS 2, 3, 4, 5, 6, 7, 10, 11, 12, 13, S ½ of NW ¼ SECTION 24 TOWNSHIP 30 RANGE 23 AREA 478.02

Fullers Consolidated placer mining claim; including:—
Fullers No. 17, 18 and 19 (respectively) placer mining claims.)

DATE.	NOTATIONS.
Mar. 6 '13	Application presented, Receipt No. 1120601.
" 24 13	Form 4-024b, issued, duplicate & 1 copy sent G.L.O.
June 14 '13	C.F.D. requests Final Cert. be withheld
" 30 '13	Cert. of posting in office prepared. No final papers filed. Payment not made. Papers sent G.L.O. with June, 1913 returns.
July 9 "	All final papers filed.
Aug. 8 "	Payment made. Receipt No. 1120998.
14 "	Final papers sent G.L.O.
Sept. 11 "	Protest 716 filed. Protest 718 filed. SERIAL NO. 04011

NOTATIONS.

U. S. Land Office,
Visalia, California.
December 13, 1913.

I hereby certify the foregoing to be a full, true, and correct copy of the notations on the Serial Number Register, in this office, relating to mineral application No. 04011.

(Ink hand writing) Geo. W. Stewart.
Register.
6-1267

[3196]

4-051.

PLAINTIFF'S EXHIBIT 13-A.

SERIAL NO. 04132 NAME ADDRESS KIND

\- - - - - - - - - - - - - -

DATE

W. S. Lierly, G. L. Blosser, Mrs. H. J. Dover, Margaret E. Dover, Executrix of last will and testament of J. M. Dover, deceased; S. A. Quinby, W. A. McNeil, F. N. Kaufman and J. W. Kay, by W. S. Lierly, Agent and Attorney-in-fact, Bakersfield, Cal.

Address.

Edmund Tauszky, Atty. No. 702 Sharon Bldg. San Francisco, Cal.

DESCRIPTION OF LAND SW ¼ SECTION 24 TOWNSHIP 30 RANGE 23

AREA 160

(Elk Claim Placer Mining claim.)

\- - - - - - - - - - - - - -

DATE.	NOTATIONS.
May 17 '13	Adverse claim presented against Mineral Application 04010. Receipt No. 1120826 issued. Notice by R.M. on form 4-363 to Frank G. Munzer and Edmund Tauszky. Notice to G.L.O. on form 4-024a.
	10427
	Adverse claim.

- - - - - - - - - - - - -

NOTATIONS.

U. S. Land Office,
Visalia, California.
December 13, 1913.

I hereby certify the foregoing to be a full, true and correct copy of the notations on the Serial Number Register, in this office, relating to mineral adverse claim No. 04132.

(Ink hand writing) Geo. W. Stewart.
Register.
6-1267

[3197]

PLAINTIFF'S EXHIBIT 13-B. 4-051

SERIAL NO. 02916	NAME ADDRESS KIND	
The Eight Oil Company by S. P. Wible Atty-infact.	Bakersfield, Calif.	DATE July 31 '11
DESCRIPTION OF LAND ALL OF		

SECTION 30 TOWNSHIP 30 RANGE 24
AREA 644.48 May 7 '12
Fullers' Second Cons. P. M. Claim. July 17 '13

DATE	NOTATION.	" 18 "
Jan. 6-11	Application presented. Receipt No. 678572 issued. Notice issued for publication in Maricopa Oil News. Copy posted in office. Copy proof expenditures sent C.F.D.	
Feb. 9-11	Protest No. 358 filed.	
" " "	" " 359 "	
Mar 20 "	C.F.D. reports no protest.	
" 29 11	Papers sent G.L.O. with May, 1911, returns.	
June 9 " "	Wrote G.L.O. in re above.	
Mar 31 "	C.F.D. files protest against allowance of proof.	
Jan 30 "	Protest sent G.L.O.	

10428

Mineral

NOTATIONS.

Protest sent G.L.O.

At 11.39 A.M., Amendment to protest filed by Jno. D. Cage, per. his attys. E. E. Farnsworth and C. G. Lamberson.

"FS" of July 11, 1913, refers to wire of May 25, and called for return of appn. papers.

Wrote G.L.O. papers not in our custody.
U. S. Land Office, Visalia, California/

I hereby certify the above and foregoing to be a full, true and correct copy of the notations on the Serial Number Register, in this office, relating to mineral application No. 02916.

(Ink hand writing)Geo.W.Stewart,
Register.
6-1267

[3198]

TESTIMONY OMITTED. During the trial appellants raised the issue of whether petroleum is a mineral, contending that neither within the meaning of the Act of Congress of July 27, 1866, and the Joint Resolutions of June 28, 1870 nor within the meaning of any Act of Congress or any recognized or established meaning is it such; and much testimony upon said issue was introduced both by appellants and appellee which is not made a part of this statement of the evidence on appeal for the reason that in the interval between the introduction of such testimony and the submission of the case the Supreme Court of the United States handed down its decision in the case of Edmund Burke vs. Southern Pacific Railroad Co., 234 U. S. 669, holding that petroleum is a mineral, and thus making such testimony immaterial.
[3199]

IN THE DISTRICT COURT OF THE UNITED STATES FOR THE NINTH CIRCUIT SOUTHERN DISTRICT OF CALIFORNIA NORTHERN DIVISION

THE UNITED STATES OF AMERICA, Plaintiff,
-vs-
THE SOUTHERN PACIFIC COMPANY, a corporation, et al, Defendants,

AFFIDAVIT

STATE OF CALIFORNIA)
: ss:
COUNTY OF LOS ANGELES)

Francis P. Harrington, being duly sworn, deposes and says: That the foregoing condensed statement of evidence to be printed upon appeal in the above-entitled action, consisting of three (3) volumes, and a total number of 3199 pages, has been prepared and transcribed by affiant from the original record in said cause, and from proposed condensed statements of both parties to the cause, in accordance with the order of the court herein made by Judge Bean, and in accordance with the supplemental stipulation of the parties in this cause, on file herein, and contains together with the exhibits, evidence and documents stipulated by the parties to be transmitted upon appeal without being printed, a full, true and complete statement of the evidence upon appeal, in accordance

with said order of court and the stipulations of the parties.

Subscribed and sworn to before me this 27th day of January, 1917. Francis P. Harrington - - - - - - - - - -

(SEAL) ANTHONY E. PRIVATO
Notary Public in and for the County of Los Angeles, State of California. [3200]

IN THE DISTRICT COURT OF THE UNITED STATES FOR THE NINTH CIRCUIT SOUTHERN DISTRICT OF CALIFORNIA NORTHERN DIVISION.

UNITED STATES OF AMERICA, Plaintiff,
vs.
THE SOUTHERN PACIFIC COMPANY, a Corporation,
THE SOUTHERN PACIFIC RAILROAD COMPANY, a Corporation,
HOMER S. KING, Trustee,
JAMES K. WILSON, Trustee,
THE CENTRAL TRUST COMPANY OF NEW YORK, a Corporation,

THE EQUITABLE TRUST COMPANY OF NEW YORK, a Corporation, THE KERN TRADING & OIL COMPANY, a Corporation, Defendants.

PETITION FOR AND ORDER ALLOWING APPEAL.

To the Judges of said District Court.

The Southern Pacific Company, The Southern Pacific Railroad Company, Homer S. King, Trustee, James K. Wilson Trustee, The Central Trust Company of New York, The Equitable Trust Company of New York and the Kern Trading and Oil Company, each and all feeling aggrieved by the final decree filed and entered in the above entitled cause on the ninth day of August A. D. 1915 do hereby jointly and severally appeal from said decree to the United States Circuit Court of Appeals for the Ninth Circuit, and they file herewith their assignment of errors asserted and intended to be urged upon appeal and they pray [3201] that their appeal may be allowed, and they present herewith a good and sufficient bond for costs and damages and they pray that said bond may be approved by the court, and that pending said appeal all proceedings in this cause may be stayed, and they further pray that it may be ordered by the court that in preparing the transcript of the record upon appeal that all maps and exhibits

introduced in evidence by either or all parties may be bound in volumes and transmitted by the clerk as original documents as a part of the record upon appeal without being transcribed.

GUY V. SHOUP
JOSEPH H CALL
CHARLES R. LEWERS
Solicitors for said defendants.

JOSEPH H CALL
Of Counsel for said Defendants.

J. W. McKINLEY
Solicitor for the Equitable Trust Co.

The foregoing petition for appeal is hereby allowed upon bond being given as required by law in the sum of $10000- and upon approval of said bond the same to act as a supersedeas and as a bond for costs and damages, upon appeal, and it is further ordered that in preparing the transcript of the record upon appeal that all maps and exhibits introduced in evidence by either or all parties may be bound in volumes and transmitted by the clerk as original documents as a part of the record upon appeal without being transcribed.

Dated this January 29th 1916.

ERSKINE M. ROSS
Circuit Judge and Judge of the United States Circuit Court of Appeals for the Ninth Circuit. [3202]

(Endorsed:) Orig. No. 221 In the District Court of the United States For the Ninth Circuit Southern District of California Northern Division United

States, Plaintiff, vs. Southern Pacific Company, et al Defendants Petition for and Order Allowing Appeal Guy V. Shoup Charles R. Lewers, Joseph H. Call, Of Solicitors for Defendants. Filed Jan 29 1916 Wm. M. Van Dyke, Clerk By Chas. N. Williams Deputy Clerk. [3203]

No. 221

IN THE DISTRICT COURT OF THE UNITED STATES FOR THE NINTH CIRCUIT SOUTHERN DISTRICT OF CALIFORNIA NORTHERN DIVISION.

UNITED STATES OF AMERICA,

Plaintiff,

vs.

THE SOUTHERN PACIFIC COMPANY, a Corporation, THE SOUTHERN PACIFIC RAILROAD COMPANY, a Corporation, HOMER S. KING, Trustee, JAMES K. WILSON, Trustee, THE CENTRAL TRUST COMPANY OF NEW YORK, a Corporation, THE EQUITABLE TRUST COMPANY OF NEW YORK, a Corporation, THE KERN TRADING & OIL COMPANY, a Corporation.

ASSIGNMENT OF ERRORS

The above named defendants Southern Pacific

Company, Southern Pacific Railroad Company, Homer S. King Trustee, James K. Wilson Trustee, The Central Trust Company of New York, The Equitable Trust Company of New York and The Kern Trading and Oil Company, having appealed from the final decree in said cause, filed and entered on the ninth day of August, 1915 do now jointly and severally file this, their Assignment of Errors, in connection with their petition for said appeal, which errors, and each of them, are asserted [**3204**] and intended to be urged upon appeal.

I

That said United States District Court for the Southern District of California, Northern Division, erred in adjudging and determining that the United States did not prior to issuing patent for said lands on December twelve, 1904, investigate and ascertain the true character of said lands as to their being mineral or non-mineral.

II

That said court erred in adjudging and determining that the United States did not on and prior to date of said patent have and possess equal knowledge with the Southern Pacific Railroad Company, and other defendants herein, and of the public generally, as to the true character of said lands, as to their being mineral or non-mineral.

III

That said court erred in adjudging and determining that the Southern Pacific Railroad Company, de-

fendant herein, or any other persons, knew at or prior to the date of issuance of patent to said lands that said lands, or any of them, contained valuable mineral deposits or were known to be mineral lands.

IV.

That said court erred in adjudging and determining that the Southern Pacific Railroad Company, defendant herein, or any one acting by its authority, falsely or fraudulently represented to the United States prior to issuance of said patent that said lands were not known to contain valuable mineral deposits, and that they were not known mineral lands.

V

That said court erred in adjudging and determining that [3205] the United States in the issuance of said patent relied upon, or had any right to rely upon, any statement, affidavit or representation of said Southern Pacific Railroad Company, or of its officers or agents, or that the United States was induced by any statement, or representation made by said Company, or of its officers or agents, to issue said patent to said lands, or any of said lands.

VI.

That said Court erred in adjudging and determining that it can be ascertained and determined from geological conditions and examination upon the surface of the ground that any tract of land contains valuable deposits of asphaltum or mineral oil.

VII.

That said court erred in adjudging and determin-

ing that it can be established and proven from geological conditions and superficial examinations without drilling wells, that such land contains asphaltum or petroleum in quantities sufficient to make said land valuable for those deposits, or of such quality as to make such land valuable for such deposits, or that such deposits can be found at a depth such as to make said land valuable for such deposits.

VIII.

That said court erred in adjudging and determining that any statement, affidavit or representation made by said Southern Pacific Railroad Company, or by any one acting on its behalf, at or prior to the issuance of said patent, as to the mineral or non-mineral character of said lands, or any of them, was false or untrue. [3206]

IX.

That said court erred in adjudging and determining that the Southern Pacific Railroad Company, or any person acting by its authority, at or prior to the date of said patent, made any statement or representation of fact to the plaintiff, as to the non-mineral character of said lands, or any of them, or did otherwise than express opinions as to the character of said lands, made in good faith and based upon a superficial examination of said lands without borings, excavation or examinations under ground.

X.

That said court erred in adjudging and determining that said patent to said lands, dated December

twelve, 1904, was not regular and valid determination by the United States, that said lands were subject to be selected as indemnity by the Southern Pacific Railroad Company under its grant of July twenty-seventh, 1866, and that said lands were not, by said patent, determined to be non-mineral lands, and of the character of lands that said Company was entitled to select as indemnity.

XI.

That said court erred in adjudging and determining that the patent of the United States to said lands, or any of them, be cancelled, annulled or vacated.

WHEREFORE, said appellants jointly and severally pray that said decree may be reversed, and that said District Court be ordered to reverse said decree and dismiss the bill of complaint herein. [3207]

GUY V. SHOUP
CHARLES R. LEWERS
JOSEPH H CALL
Solicitors and Attorneys for said
Defendants Appellants herein.

Service of the foregoing Assignment of Errors and accompanying Petition for Appeal admitted this ——————day of——————1916.

(Endorsed:) Orig. No. 221 In the District Court of the United States For the Ninth Circuit Southern District of California Northern Division. United States, Plaintiff, vs. Southern Pacific Company, et al. Assignment of Errors Guy V. Shoup Charles R. Lewers, Joseph H. Call, Of Solicitors for Defend-

ants. Filed Jan 29 1916 Wm. M. Van Dyke, Clerk By Chas. N. Williams, Deputy Clerk [**3208**]

No. 221.

IN THE DISTRICT COURT OF THE UNITED STATES FOR THE NINTH CIRCUIT SOUTHERN DISTRICT OF CALIFORNIA, NORTHERN DIVISION.

UNITED STATES OF AMERICA, Plaintiff,
v.
(Seal)
THE SOUTHERN PACIFIC COMPANY, a Corporation,
THE SOUTHERN PACIFIC RAILROAD COMPANY, a corporation,
HOMER S. KING, Trustee,
JAMES K. WILSON, Trustee,
THE CENTRAL TRUST COMPANY OF NEW YORK, a corporation,
THE EQUITABLE TRUST COMPANY OF NEW YORK, a corporation,
THE KERN TRADING AND OIL COMPANY, a corporation,
Defendants.

BOND ON APPEAL.

(Seal)

KNOW ALL MEN BY THESE PRESENTS: That we, The Southern Pacific Company, a corporation The Southern Pacific Railroad Company, a corporation, Homer S. King, individually and as trustee, James K. Wilson, individually and as trustee, The Central Trust Company of New York, a corpor-

(Seal)

ation, The Equitable Trust Company of New York, a corporation, and the Kern Trading and Oil Company (of California) a corporation, as principals, and United States Fidelity and Guaranty Company, a corporation, [3209] duly organized and empowered to do business, and doing business in the State of California, as surety, are held and firmly bound unto the United States of America, complainant in the above entitled action in the sum of Ten Thousand Dollars ($10,000.00), lawful money of the United States of America, to be paid to the said United States of America, its attorneys, officers or assigns, and for the payment of which sum, well and truly to be made, we bind ourselves, and each of us, and our and each of our successors, associates, heirs, executors, administrators and assigns, jointly and severally, firmly by these presents.

(Seal)

SEALED with our seals and dated this 27th day of January, 1916.

WHEREAS the said defendants in the above entitled cause have prosecuted or are about to prosecute

an appeal to the United States Circuit Court of Appeals for the Ninth Circuit, to reverse the judgment and decree rendered and entered in the above entitled cause in favor of the United States of America, the said complainant, and against the said defendants, on the ninth day of August, 1915, which said judgment and decree is hereby referred to and adopted as part hereof;

NOW, THEREFORE, the condition of this obligation is such that if said defendants in the above entitled cause shall prosecute their said appeal to effect and answer all damages and costs, if they fail to make said appeal good, then this obligation shall be void; otherwise the same shall be and remain in full force and effect.

SOUTHERN PACIFIC COMPANY
By W R Scott
Vice President

(Seal)

G S King
Assistant Secretary

[3210]

SOUTHERN PACIFIC COMPANY
By Charles R. Lewers
Joseph H Call
Guy V Shoup
Its Solicitors

(Seal)

SOUTHERN PACIFIC RAILROAD COMPANY

By W R Scott
Second Vice-President

(Seal)

G S King
Secretary.

SOUTHERN PACIFIC RAILROAD COMPANY

By Charles R. Lewers
Joseph H Call
Guy V Shoup
Its Solicitors

HOMER S. KING
Individually and as Trustee,
By Charles R. Lewers
Solicitor

JAMES K. WILSON
Individually and as Trustee,
By Charles R. Lewers
Solicitor

THE CENTRAL TRUST COMPANY OF NEW YORK

(Seal)

By Charles R. Lewers
Solicitor [3211]

THE EQUITABLE TRUST COMPANY OF NEW YORK
By J. W. McKinley
Solicitor

KERN TRADING AND OIL
COMPANY
(Seal) By W R Scott
President
G S King
Secretary
3. And by Charles R. Lewers
Joseph H. Call
Guy V. Shoup
Solicitors

UNITED STATES FIDELITY &
GUARANTY COMPANY,
By Frank M. Kelsey
its Attorney in Fact
(Seal)

The foregoing bond upon appeal is hereby approved and the same shall operate as a supersedeas.

Dated this 29th day of January 1916.

ERSKINE M. ROSS
Circuit Judge and Judge of the United States Circuit Court of Appeals for Ninth Circuit. [3212]

(Endorsed:) No. 221 In the District Court of the United States, Southern District of California. Northern Division. United States of America Plaintiff, vs. The Southern Pacific Company, et al. Defendants. Bond on Appeal.

Guy V. Shoup Charles R. Lewers Joseph H. Call Attorneys for Defendants. 828 Flood Building San Francisco, Cal.

Filed Jan 29 1916 Wm. M. Van Dyke, Clerk By Chas. N. Williams, Deputy Clerk. [3213]

No. 221

IN THE DISTRICT COURT OF THE UNITED STATES FOR THE NINTH CIRCUIT SOUTHERN DISTRICT OF CALIFORNIA NORTHERN DIVISION

UNITED STATES OF AMERICA, Plaintiff.

vs.

THE SOUTHERN PACIFIC COMPANY, a Corporation,
THE SOUTHERN PACIFIC RAILROAD COMPANY, a Corporation,
HOMER S. KING, Trustee,
JAMES K. WILSON, Trustee,
THE CENTRAL TRUST COMPANY OF NEW YORK, a Corporation,
THE EQUITABLE TRUST COMPANY OF NEW YORK, a Corporation,
THE KERN TRADING & OIL COMPANY, a Corporation, Defendants.

PRAECIPE

To the Clerk of the District Court of the United States, Ninth Circuit, Southern District of California, Northern Division.

The Defendants in the above entitled cause, Southern Pacific Company, Southern Pacific Railroad Company, Homer S. King, Trustee, James K. Wilson, Trustee, The Central Trust Company of New York, The Equitable Trust Company of New York [3214] and the Kern Trading and Oil Company, having been allowed an appeal to the United States Circuit Court of Appeals, Ninth Circuit, from the final decree entered in said cause, do now in pursuance of their appeal hereby designate and indicate the portions of the record in said cause to be incorporated into the transcript on such appeal, omitting from each paper the formal parts.

1. Bill of Complaint with any amendments thereto.
2. Answer of defendants, other than Equitable Trust Company.
3. Answer of Equitable Trust Company.
4. Order of Court to transfer cause from Honorable Olin Wellborn to be heard by Honorable Robert S. Bean at Los Angeles.
5. Opinion of Bean, District Judge, on final hearing.
6. Final Decree, filed and entered August nine, 1915.
7. Defendants and Appellants Petition for Appeal and Order allowing same.

8. Defendants and Appellants Assignment of Errors on Appeal.
9. Defendants and Appellants Bond on Appeal and order approving same.
10. Citation on Appeal to Circuit Court of Appeals and return of service thereof.
11. All *precipes* to clerk designating parts of record to be transcribed and all notices to adverse parties of filing same.
12. All orders of court enlarging time to take testimony *to* either, or both parties. [3215]
13. All orders of court enlarging time of parties to prepare and file condensed statement of evidence, or amendments thereto.
14. Condensed Statement of Evidence to be transcribed hereunto attached and made a part of this *precipe* marked "Exhibit A".

CHARLES R. LEWERS
JOSEPS H. CALL
Solicitors and Attorneys for
said Defendants and Appellants.

(Endorsed:) (Orig) CC No. 221 In the District Court of the United States For the Ninth Circuit Southern District of California Northern Division United States, Plaintiff, vs. Southern Pacific Company, et al Defendants. *Precipe* Guy V. Shoup Charles R. Lewers Joseph H. Call, Of Solictors for Defendants. Received copy hereof. Feby. 9, 1916 Albert Schoonover U. S. Atty By Clyde R. Moody Asst. U. S. Atty.

Filed Feb 9 1916 Wm.M. Van Dyke, Clerk By R S Zimmerman, Deputy Clerk [3216]

VOL. VII.

TRANSCRIPT OF RECORD.

SUPREME COURT OF THE UNITED STATES.

OCTOBER TERM, 1918

No. 179

THE UNITED STATES OF AMERICA, APPELLANT,

vs.

THE SOUTHERN PACIFIC COMPANY ET AL.

FILED AUGUST 4, 1919.

SUPREME COURT OF THE UNITED STATES.

OCTOBER TERM, 1918.

No. 585.

THE UNITED STATES OF AMERICA, APPELLANT,

vs.

THE SOUTHERN PACIFIC COMPANY ET AL.

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3903 In the District Court of the United States, in and for the Southern District of California, Northern Division.

THE UNITED STATES OF AMERICA, COMPLAINANTS,
vs.
THE SOUTHERN PACAFIC COMPANY, A CORPORATION, The Southern Pacific Railroad Company, a Corporation, Homer S. King, Trustee, James K. Wilson, Trustee, The Central Trust Company of New York, a Corporation, The Kern Trading & Oil Company, a Corporation, defendants.

C. C. No. 221.
Northern Division.

I, Wm. M. Van Dyke, clerk of the District Court of the United States of America in and for the Southern District of California, do hereby certify the foregoing three thousand nine hundred and two (3902) printed pages, numbered from 1 to 3902, inclusive, to be a full, true, and correct transcript of the record of the District Court of the United States of America in and for the Southern District of California, in the above and therein entitled suit, as the same was prepared and caused to be printed by the appellants, and that the original citation is attached thereto.

I do further certify that the fees of the clerk for com-
3904 paring and correcting the foregoing record on appeal prepared by counsel and presented to me for my certificate, amount to $10,031.10, and that said amount has been paid me by appellants herein.

In testimony whereof, I have hereunto set my hand and affixed the seal of the District Court of the United States of America in and for the Southern District of California, this 22nd day of March, in the year of our Lord one thousand nine hundred and seventeen, and of our Independence the one hundred and forty-first.

[SEAL.] WM. M. VAN DYKE,
Clerk of the District Court of the United States of America in and for the Southern District of California.

Received from above appellants three copies of the within record consisting of six volumes.

ALBERT SCHOONOVER,
U. S. Attorney,
F. P. HOBGOOD,
Special Assistant to Attorney General.

[Endorsed:] Printed transcript of record. Filed March 23, 1917. F. D. Monckton, Clerk U. S. Circuit Court of Appeals for the Ninth Circuit.

3905 United States Circuit Court of Appeals for the Ninth Circuit.

THE SOUTHERN PACIFIC COMPANY, A CORPORATION, THE Southern Pacific Railroad Company, a Corporation, Homer S. King, Trustee, James K. Wilson, Trustee, The Central Trust Company of New York, a Corporation, The Equitable Trust Company of New York, a Corporation, The Kern Trading & Oil Company, a Corporation, appellants,

vs.

THE UNITED STATES OF AMERICA, APPELLEE.

No. 2958.

Upon Appeal from the United States District Court for the Southern District of California, Northern Division.

Proceedings had in the United States Circuit Court of Appeals for the Ninth Circuit.

3906 At a stated term, to wit, the October term, A. D. 1916, of the United States Circuit Court of Appeals for the Ninth Circuit, held in the court room thereof, in the city and county of San Francisco, in the State of California, on Thursday, the tenth day of May, in the year of our Lord one thousand nine hundred and seventeen.

Present:

The Honorable William B. Gilbert, senior Circuit Judge, presiding,

The Honorable William H. Hunt, Circuit Judge,

The Honorable Frank S. Dietrich, District Judge.

THE SOUTHERN PACIFIC COMPANY, A CORPORATION, et al., appellants,

vs.

THE UNITED STATES OF AMERICA, APPELLEE.

No. 2958.

Order of submission.

Ordered, appeal in the above-entitled cause argued by Messrs. Joseph H. Call and Charles R. Lewers, counsel for the appellants, and by Mr. Special Assistant to the Attorney General F. P. Hobgood, counsel for the appellee, and submitted to the court for consideration and decision.

3907 At a stated term, to wit, the October term, A. D. 1917, of the United States Circuit Court of Appeals for the Ninth Circuit, held in the court room thereof, in the city and county of San Francisco, in the State of California, on Monday, the sixth day of May, in the year of our Lord one thousand nine hundred and eighteen.

Present:
The Honorable William B. Gilbert, senior Circuit Judge, presiding,
The Honorable Erskine M. Ross, Circuit Judge,
The Honorable William H. Hunt, Circuit Judge.

THE SOUTHERN PACIFIC COMPANY, A CORPORATION, THE Southern Pacific Railroad Company, a Corporation, Homer S. King, Trustee, James K. Wilson, Trustee, The Central Trust Company of New York, a Corporation, The Equitable Trust Company of New York, a Corporation, The Kern Trading & Oil Company, a Corporation, appellants,
vs.
THE UNITED STATES OF AMERICA, APPELLEE. } No. 2958.

Order directing filing of opinion and filing and recording of decree.

By direction of the Honorable William H. Hunt, Circuit Judge, and the Honorable Frank S. Dietrich, District Judge, before whom, together with the Honorable William B. Gilbert, Circuit Judge, the cause was heard, ordered that the typewritten opinion this day rendered by this court in the above-entitled cause be forthwith filed by the clerk, and that a decree be filed, and recorded in the minutes of this court, in said cause in accordance with said opinion.

Honorable William B. Gilbert, Circuit Judge, dissents.

3908 United States Circuit Court of Appeals for the Ninth Circuit.

THE SOUTHERN PACIFIC COMPANY, A CORPORATION, THE Southern Pacific Railroad Company, a Corporation, Homer S. King, Trustee, James K. Wilson, Trustee, The Central Trust Company of New York, a Corporation, The Equitable Trust Company of New York, a Corporation, The Kern Trading & Oil Company, a Corporation, appellants.
vs.
THE UNITED STATES OF AMERICA, APPELLEE. } No. 2958.

(Opinion U. S. Circuit Court of Appeals.)

Guy V. Shoup, Charles R. Lewers, Joseph H. Call, and Wm. F. Herrin, solicitors for appellants; F. P. Hobgood, jr., Special Assistant to the Attorney General, attorney for appellee.

Before Gilbert and Hunt, Circuit Judges, and Deitrich, District Judge.

DIETRICH, District Judge: This is an appeal by the Southern Pacific ailroad Company and other defendants from a final decree entered August 9, 1915, in the District Court of the Southern District of California, cancelling a patent issued to the Railroad Company on December 12, 1914, for 6,109.17 acres of land. The patent was pro-

cured, so the bill charges, through the fraud of the Railroad
3909 Company, in that it farsely represented to the Land Department that the lands were non-mineral and were the character contemplated by the grant of July 27, 1866 (14 Stat. 292), and the joint resolution of June 28, 1870 (16 Stat. 382, No. 87). This grant was to the Southern Pacific Railroad, the predecessor in interest of appellant, of every alternate section of public land, not mineral, designated by odd numbers, to the amount of ten alternate sections per mile on each side of the grantee's line of road. Suitable provision is made in the act for the lieu selection of unoccupied agricultural lands in odd numbered sections, within twenty miles of the line of road, to make good such losses as might be sustained from the primary grant because of the mineral character of lands embraced within the limits thereof. The lands in suit were selected as lieu lands under this provision, and embrace parts of sections 17 and 19, and all of sections 15, 21, 23, 25, 27, 29, 33, and 35, in township 30 south, range 23 east, Mt. Diablo Base and Meridian, which township and range will, for convenience, be referred to as 30-23. By regulation existing at the time the selection was made, the Railroad Company was required to attach to its selection list, and to file with the local land officers, an affidavit by its land agent "setting forth in substance that he has caused the lands mentioned to be carefully examined by the agents and employes of the company as to their mineral or agricultural character, and that to the best of his knowledge and belief none of the lands returned in the list are mineral lands." 19 L. D. 21. Such an affidavit, executed by Charles W. Eberlein, acting land agent of the company, was attached to the selection list in question, as was also another affidavit, in which he stated that the lands were "not interdicted mineral or reserved lands," but were "of the character contemplated by the grant, being within the limits of the exterior ten (10) miles indemnity belt," etc. While couched in tech-
nical language, the full scope of the charge as set forth in the
9310 bill is that whereas the lands were known to be valuable for their mineral oil, Eberlein falsely represented to the Land Department that they were nonmineral, and thus induced the department to issue the patent. There is some comment in the Government's brief upon the statement in the affidavit that affiiant had caused the lands to be carefully examined by the agents and employes of the company, and the correctness thereof is no doubt open to question, but there is no averment in the bill of its falsity, nor is any relief claimed by reason thereof. And besides, it is not thought that such a statement, even if untrue, is actionable in itself. Significant here only by reason of its association with the accompanying statement that the listed lands were nonmineral in character; in that connection it may serve to fortify the view that, in making the substantive representations as to the character of the land, Eberlein is to be held chargeable with knowledge of all the conditions which such careful examination, if made, would have disclosed. Accordingly, in determining the quality and legal effect of his representation that to the

best of his knowledge and belief none of the lands were mineral in character, we shall assume that he had all such available information, including, of course, everything that was known to the company's geologists and other agents or employes; and, indeed, as a matter of fact, we find that, through its several agencies, the company had such information as a fairly careful surface exploration of the territory by the prospector and geologist would afford, and, for present purposes, this knowledge must be imputed to Eberlein, its responsible agent and representative. With such information, could he truthfully and in good faith represent to the Land Department that to the best of his knowledge and belief the lands were nonmineral?

3911 When we come to analyze the record we find that as to the physical conditions there is little conflict in the evidence, and that, aside from the "expert" testimony, the greater part of it relates to the geological significance which people variously qualified or unqualified were, during the general period in which the lists were filed, inclined to attach to such conditions. The original list was offered for filing November 14, 1903, but to correct certain errors a new or amended list was filed on September 6, 1904. We therefore inquire what were the observable geological and other physical conditions during that period.

The lands are situated in what are locally known as the Elk Hills, the range of which is approximately fifteen miles long and six or seven miles wide at the widest point, with a northwesterly and southeasterly trend. Toward the east they fall quite abruptly for a thousand or twelve hundred feet to the broad San Joaquin Valley. From five to ten miles westerly, with a similar trend, is the main uplift of the region called the Temblor Range, between which and the Elk Hills are the McKittrick Hills to the north, and the Buena Vista Hills to the south, the several uplifts being separated and defined by narrow intervening valleys. To the prospector for oil doubtless the most conspicuous feature of the territory in 1903 and 1904 was the actual development, more particularly in the McKittrick Hills, but also at Sunset, twenty-five or thirty mile to the southeast, and at Midway, half way between, the latter fields both being upon the easterly flank of the Temblor Range. In the aggregate there were in these three fields in 1904 between two and three hundred wells (part of them producing), and particularly in the McKittrick field the presence of oil in large volume reasonably near the surface and economically susceptible to extraction was abundantly shown. Perhaps twenty per cent of these wells were in the Midway field, and the others were about equally divided between McKittrick and Sunset. If a line had been drawn from McKittrick to Sunset, through Midway, it would have been observed that all of the develop-

3912 ment was within a zone not to exceed a maximum width of three miles, and for most of the distance less than two miles. The railroad company's geologists, who were in the territory at various times during this period, doubtless noted oil seepages and oil sand outcrops for many miles along the line of the McKittrick develop-

ment, and in several places along a line or zone westerly from the Midway field. From observations readily made they must have concluded that underlying this zone there were shales in which it is supposed the oil originates, and beds of sand into which it migrates. They must have further concluded that the several uplifts are structural, that is they are the results of a folding or of foldings of the earth's crust, and they would have known that such a fold or anticline is a favorable formation for the accumulation and retention of oil. They would have determined that the principal dip of the country is northeasterly, and the general trend of the fold axes is northwesterly and southeasterly.

With these known conditions, and with such additional surface occurrences as might have been observed in the Elk Hills themselves (admitted by all to be of minor significance), should they, by a process of geological correlation, have reasonably concluded that the lands in question were mineral lands, in the sense in which the phrase is judicially used? They would have noted that from this zone of development it was a distance of between three and four miles to the nearest, and approximately nine miles to the most distant, of the lands in question, with a valley intervening. The only development, if such it may be called, upon the township in which the lands are embraced, or to the north, or to the east thereof, or to the south (aside from the Midway and Sunset fields, several miles away), was an abandoned prospect hole in section 8, 30–23, sunk to a depth of about 900 feet, in 1901, without encountering oil; and another abandoned hole on section 2, 31–24, sunk about 600 feet, in 1901, striking small amounts of oil. As to surface indications, such
3913 as gas blowouts, brea, and oil sands, which seem to be of about the same significance to the oil prospector that float and stain are to the lode prospector, the evidence is not highly satisfactory, and, when limited to the lands in question, or, indeed, to the entire township in which they are embraced, very meager. In a few places to the north and east, witnesses who testified doubtless believed that they found traces of oil that has vanished, but whether any importance at all can be attached to these occurrences is left in much uncertainty because of the doubtful character of the most conspicuous one, and the only one the existence of which was more or less generally known, namely, a so-called oil seepage in section 32, 30–24, a little more than a mile easterly from the east boundary of township 23. To say nothing of the view of the defendant's experts that there was no oil here, or anything to indicate the presence of oil, one of the chief experts for the Government testified that he had made two examinations of the sands (which, it is to be noted, were dry), and upon a chloroform test they gave no oil. He found some particles of carbon, and by a course of reasoning reached the conclusion that at some time in the past escaping gas carried oil, which had either been burned or had evaporated. But manifestly, if necessary to resort to such possible reasoning, it can scarcely be held that an occurrence of so doubtful a nature and significance must have been

regarded by the defendant's geologists in 1903 and 1904 as having an important bearing upon the question of the mineral character of the selected lands.

Resorting to the history of the region, the Railroad Company's geologists would have learned that until oil was discovered in the Kern River field near Bakersfield in the spring of 1899, thirty miles to the east, the land in suit, as well as the surrounding territory, had been used for grazing purposes only, and had not attracted
3914 serious attention for its mineral possibilities. That following the Kern River discovery there was widespread excitement, and the whole countryside was plastered with "locations" and "relocations". People from all walks of life were drawn into the race for claims. No one pretended to make an actual discovery, and one group of speculators, employing twenty-five or thirty locators, located approximately fifty square miles. Everything unpatented was taken in. The claims, of course, were speculative, and in the Elk Hills no actual discovery was made, and, with the two exceptions heretofore noted, there was no attempt at discovery or development. Claims were held not by working them, but by the cheaper method of relocation, so that in 1903 locations were sometimes piled upon each other three or four deep. As a result, doubtless, of the discoveries in the Kern River field and the later ones at McKittrick and Sunset, as well as of the current excitement, the Commissioner of the General Land Office, on February 28, 1900, directed the local land officers to "suspend from disposition until further orders" a large body of lands, including the entire township in which the lands in suit are situate, and of this withdrawal the Railroad Company and its agents of course had knowledge. While the question is perhaps of but slight importance, it may be said in this connection that in our view this order was intended to withdraw lands from agricultural entry only, and it was so generally understood. The interests of the Government were not imperilled by the possible mineral entry of comparatively worthless grazing lands, and therefore no reason existed for suspending that form of entry. And that the order was intended to be so understood is made clear by the contemporary construction of the department from which it issued. In response to a request of the Railroad Company that an investigation be made by the land office with a view to lifting the suspension, so that the lands could be selected under its grant, certain correspondence passed, in all of which it is assumed that the suspension extended only
3915 to agricultural entries. For example, in the letter of December 10, 1903, from Acting Commissioner Fimple to Special Agent Ryan, there is found this sentence: "It is stated that nearly four years have elapsed since the order of suspension and no mineral entries have been made for any of said lands." And in the letter of February 11, 1904, from the same office to the register and receiver of the local land office, advising them of the restoration of the lands to entry, the original order is referred to as having "suspended (the

land) from disposition under the agricultural land laws upon allegations that the same contain deposits of mineral (oil)." Although as thus appears the lands were open to mineral entry during three years or more after the excitement of 1899 and 1900, leading to the speculative location of all the public lands in the region, there was no effort to develop any of the lands in suit, nor, with the exception of the two ineffectual attempts already noted, was there any development anywhere in the Elk Hills, or any entry of any lands therein for patent. To state the case fully, it should be added that during this period the price of oil was comparatively low, and transportation facilities were poor.

Of all of these conditions—the "oil land boom", the following inactivity and depression, the rapid development in the narrow McKittrick-Midway-Sunset zone, the two abortive attempts at development in the Elk Hills, the total want of oil land entries, notwithstanding suspension from agricultural entries, the general abandonment of locations,—the Railroad Company's agents must have known, and must have considered as having more or less weight.

Such in outlines are the material features of the geology of the region and of its development as an oil field. The geologic facts are interpreted by oil prospectors and operators, and by geological experts; and to this class of testimony we now direct attention. It is too voluminous to review in detail, and the most general analy-
3916 sis must suffice. As to certain geological features of the region there is practical harmony of view. It is virtually conceded by the experts for the Railroad Company that in the McKittrick-Midway-Sunset zone it was known that there was oil in considerable quantities, susceptible to profitable extraction, and that an anticline such as is found in the Elk Hills is an occurrence favorable to the accumulation and retention of oil, to which prospectors would hopefully look upon discovering the presence of oil in adjacent territory. They also concede that it then appeared probable that some oil would be found, but not in sufficient quantities or near enough the surface to warrant extraction and marketing. Upon the other hand, while confident that oil is to be found in the lands in suit, the Government experts virtually concede that in the most favorable view its depth is great—so great in fact that under the conditions existing in 1903 and 1904, and, indeed, at the time the testimony was taken, extraction was economically impracticable. When it is borne in mind that a deep well costs at the rate of approximately $15.00 per foot, a large flow of oil, with fair prices, must be assured to justify the sinking of a well four or five thousand feet deep. While some estimates of the probable depth were ventured, they were made reluctantly, and were apparently based upon data insufficient to give them the weight of reasonably satisfactory scientific deductions. Nor could any intelligent estimate be made of the quantity or quality of the oil. But while in still other respects the geologists are in substantial agreement, when it comes to a statement of general conclusions upon the ultimate question of the character of the lands, there

is seemingly great diversity of opinion. To a certain degree, it is true, this variance is, upon analysis, found to be more apparent than real. For one witness to affirm and another to deny that the Elk Hills uplift is "oil territory" does not necessarily imply a
3917 real issue of fact, for the phrase "oil territory" has no fixed or well-recognized meaning, and may very well be used in one sense and understood in another. When, therefore, we look beneath the mere form of expression, we are not surprised to find that in a measure the seeming diversity disappears. We can illustrate the point and at the same time convey some idea of the scope and substance of the expert testimony as a whole better by quoting at considerable length from a single witness than by assembling fragmentary and conflicting statements from many. Naturally no expert witness for the one party will be wholly satisfactory to the other, but suppose that for our purpose we take the testimony of a witness called by the Government, Professor John Caspar Branner, of Stanford University, whose general competency and familiarity with the geology of the California oil fields are conceded. Dr. Branner visited the McKittrick field in 1900, but did not go into the Elk Hills. This latter territory he inspected for the first time about 1910, and again in 1912. The testimony given by him upon direct examination, upon which the Government most relies, is found in the following paragraph:

"I should say that if any competent geologist, observing the natural waste of oil about McKittrick and the stage of development in 1900 or a year or two subsequent, and visiting the Elk Hills and making some examination of the structural formation, failed to form an opinion that the Elk Hills were oil in character and that there was an oil-bearing zone underneath those hills, he did not understand his business."

Upon cross-examination he testified:—

"In passing upon the character of the Elk Hills, I did not determine in any way the quantity of oil and made no attempt to do so. I could not have done so from the examination I made. That could only be determined by putting down wells. One well might determine the matter and it might not. Development is required to determine whether or not that is a valuable oil deposit.

"A geologist does not determine the economic value of the land for oil. All he undertakes to do is to say whether or not the land has prospective value. I mean by prospective value, that the company proposing to develop that region should take it up—buy it, if necessary—and put down a well on it, should prospect it. I can best illustrate my idea of it by saying that I have considered it a reasonable investment, or, if you please to call it so, venture. I should have advised anybody who might have employed me to report on those propositions, to buy the lands with a view to developing them
as petroleum lands, from the surface indications and my
3918 knowledge of the surrounding conditions and of the oil formaitons in general. I could not, when I first examined the land,

have given an assurance that oil in valuable quantities could have been found. I could do so now on the basis of wells that have been put down there and have found oil. On the basis that in only two cases out of twenty-eight wells, some of them four thousand feet deep, indications of oil had been found, and in those two cases oil had been found in quantities not sufficient to make these particular wells profitable, I would not hesitate to advise operators to go ahead with prospecting. In the first place it depends on how those wells were located. If the wells were put down without reference to the geologic structure, they might go to an enormous depth without getting oil, and yet, they may move off to one side and put down a well, within a thousand or two thousand feet, and get entirely different results. And still, I may add, the general structure of the Elk Hills is so favorable to the accumulation of oil in that region that if they had gone to five thousand feet and not found the oil, I should still advise a company to not give up hope of finding it. * * *

"As to whether all the portions of a bed of Monterey shale would be equally producing I will say that these diatomaceous shales, being the source of oil, the oil does not as a rule stay in those beds. It passes out into an absorbing bed—a porous bed—where the oils accumulate. Now, the accumulation, therefore, depends on the presence of diatom beds to furnish the source, but the accumulations themselves, as you see, depend on the nature of the beds into which those oils pass; and you may have no beds there to receive that oil. The conditions may be unfavorable and the beds overlying them into which that oil can be expected to pass may vary in texture so that the oil accumulates more in one place than in another, so that the oil beds may be pockety even under conditions where you have diatomaceous beds of great thickness and evenness. * * *

"When I first went into the McKittrick District in 1900, I visited the Temblor Range. I had two assistants working with me to do topographical work, and we were mapping an area of several square miles, in detail, and my impression is I must have been there something like ten days or two weeks working on that geology.

"I made quite a careful examination during that period for the purpose of reporting on oil possibilities and reached the conclusion that there was oil, probably in paying quantities, on the property, if the wells were put down at certain points; and I located the wells and they found the oil, but I cannot say whether in paying quantities or not. From my surface examinations I could not determine with any degree of exactness whether there was oil there in paying quantities. That had to wait the test of the drill. * * *

"Even if I had not seen that seepage my opinion would have been, owing to the formation of the Elk Hills, that they were suitable for the accumulation of oil, but that would not necessarily mean that they had accumulated oil. That could be determined only by exploration. I suppose there are promising formations giving indications of adequate reservoir space for the accumulation of oil,

that do not produce oil in paying quantities. I should say such things do occur. * * *

3919 "Suppose you had an oil company and the geologist looked at that whole anticline. The geologist would naturally say 'Look for your petroleum along where these domes are.' But, at the same time, that whole arch there is practically an inverted arch or trough under which the petroleum accumulates. Now, there is an end to the petroleum somewhere. It is not going to accumulate everywhere in that entire arch. So, you can bore holes right along the crest of the anticline and in some places get great quantities of petroleum and in other places you won't get any at all, because the water crowds the petroleum up underneath there.

"There might have been an anticline broken across and so dislocated that the petroleum might have floated right out and it might have come out to the surface, especially on the side that is uplifted, so that it would be floated out to the surface and lost. There are sometimes processes going on in the oil beds where the oil is deposited which would make it unprofitable to get out the oil. * * *

"I do not think there is any way to determine from an examination of the surface how large an area yields oil at any particular point. It sometimes happens that the sand beds become hardened so that they cease to be media through which oil can pass, and it occasionally or even frequently happens that the sand beds pinch out between hard layers of strata. That is one of the reasons that one well is not a complete test of the character of any given territory, and as to other reasons therefor, I will say it depends on the localization of the oil. * * *

"I do not think that the presence or absence of water in the strata carrying oil could be regarded as decisively having a bearing upon where you would find the oil—certainly not in the light of what I understand to be the well-known fact in regard to the occurrence of petroleum in the San Joaquin Valley to-day. It used to be considered that if a well were put down and struck water there was no use looking for petroleum there; but I understand that the water has been shut out, in a number of instances, and the well has gone on deeper and found the petroleum below the water horizon.

"It is my general impression that the view I have first mentioned generally prevailed in the California oil fields until a few years ago.

"Other things permitting, water would force the oil into the anticline to where there is a large accumulation of gas developed at the crest of the anticline. The oil would stay on top of the water and the presence of water would have considerable bearing upon whether you would find oil in the anticline or not. These conditions can not be determined from a surface examination.

"It is not possible from a surface examination such as I made of the Elk Hills to determine the depth of the oil sands. There are only two ways in which that can be determined. One would be to work out the geology with great care and detail over the region—

not only in the Elk Hills themselves, but in the surrounding country—to find in what horizon the oil accumulates, and then by fitting one's evidence together and studying it one might come to the conclusion in regard to the depth at which the well would reach the oil-bearing bed. The only other way would simply be to put a well down and test it.

3920 "I have not made sufficient examination with that question in mind, to be able to tell whether you could ascertain the depth without a well, in the Elk Hills. I made no attempt to do so. The purpose of my examination was to ascertain, generally, whether that could be considered as possible oil territory, and I made no attempt to determine whether it was paying oil territory. * * *

"It is not ordinarily possible for a geologist, or practical oil man, to determine from the existence of an oil bed at a particular point, that the bed continues for any particular or definite distance in all directions or any direction, partly because the oil comes to an end where it rests on the water; partly because the porous beds are not infrequently more or less lenticular in form: that is, they may pinch out and come to an end of themselves in that way, by thinning down, or they may be interrupted by breaks, what we call faults or displacements of beds, so that the beds may be chopped square off."

Upon redirect examination he stated that the Monterey shales were very thick—approximately five thousand feet in the region just west of the Elk Hills and the Buena Vista Hills—and that he would not expect them to be so faulted as to be disadvantageous to the accumulation of oil in these hills; that he had no reason to believe that the oil sands were thin or hard or pinched out, and that geologically quartz mining is less certain than petroleum, but that coal mining is most certain of all. And then he testified:

"In coal mining one can get a very close idea of the tonnage to be taken out under a given tract of land: that is, we can calculate the product. It is the rule, in fact, in the anthracite regions in Pennsylvania, that the company will have in its reports by its geologist 'We have so many acres of land. This land yields so many tons an acre', and they count on that just exactly as if it were money in the bank. Now, in petroleum mining, of course you can't do that exact thing; there is an element of uncertainty about it that you don't find in coal mining. * * *

"I should expect to find certain parts of the folds in Elk Hills more productive than others; but it would be a pretty nice question to say just where the petroleum is going to come to an end. I don't think anybody could tell.

"It seems to me that the best chances for oil in the whole country in that region were in the Elk Hills and the Buena Vista Hills. In forming that opinion I took into consideration the possibilities of the nonoccurrence of oil resulting from the conditions of the sand and the pinching and hardness of the stratum, and other interruptions; I think that any reasonable geologist knows that there is a

certain amount of risk in any kind of petroleum mining. He counts on that.

3921 "I should say, decidedly, that the conditions in the Elk Hills are such as to warrant the ordinarily prudent man in the investment and expenditure of money with a reasonable expectation of developing a paying oil property. But I should like to explain this, that if we went back to the conditions as they existed there before any wells were put down in either of those hills and if I had been the consulting geologist for some company or party who anticipated putting down wells there, I should have put it to him in this way: 'In my opinion the geology, altogether, of the mountains to the west, and the floor of the valley, and everything taken together, strongly suggest that these hills are the best place in which to put down oil wells. There ought to be, so far as we can see, enormous quantities of petroleum under those two group of hills. Now, there is nothing absolutely certain about putting down an oil well in a new region; there is a certain amount of risk about it and you can't get away from that risk.' And I should have said to those men: 'If you have got money to risk you can afford to lose it, put it in there; if you can't afford to take any risks, you had better let somebody else do it.'

"I mean that anyone who had money to risk and who might afford to lose it might get larger returns for his money than he would from an ordinary investment. Perhaps I ought to say that one of the reasons for that risk lies in the fact that there is no way, short of putting a well down there, to determine the thickness of the strata that overlie the oil-bearing bed. As everyone knows, who knows anything about petroleum wells, you may have an enormous volume of petroleum so deep that you can't get it, and I should have said that may be the possibility there. Of course, the developments there have shown that the oil is there and the question now, of course, is entirely different from what it would have been before those wells were put down.

"It is my belief that there is an enormous petroleum deposit in those hills but I have made no attempt to work out the details as to the depth and am not prepared to state whether it would be twenty-five hundred or five thousand feet."

And again, upon recross:

"I did not mean to say that I could tell whether the oil-bearing beds under the Elk Hills were folded, faulted even, or what condition they were in; that I could not determine. It might possibly be folded and overturned.

"I don't know when I first heard of the change of view in reference to water being found in oil wells; it was comparatively recent; certainly within three or four years, but I would not say exactly. Prior to that time water in a well had been regarded as an almost fatal condition."

And still again, upon redirect:

"I should have said that I did not know whether water, under the conditions mentioned above, would be fatal or not, because my observation in regard to water led me to believe that it could be separated from oil horizons and that it was separated from them; but the well-drillers all protested so, that, as far as my experience went, when they got to water they gave it up as no use."

3922 And finally, upon recross:

"I do not mean to be understood as saying that I actually determined that the territory did contain an immense quantity of oil. I meant to say that if I had gone over that ground in 1900 with a view to saying whether or not those were probably petroleum lands, I should have, under those circumstances, pronounced them oil lands and recommended their exploitation to anyone who was able to take the risk. I realized that the risk might result in a total loss of the investment."

In considering this testimony it should be borne in mind that nowhere in the record is there any attempt to show, nor is there any claim, that any subdivision of the lands in suit contains more oil or is more valuable for oil than any other subdivision of such lands, or, for that matter, than any other part of the entire territory embraced in the Elk Hills. So that (to make a concrete case) if we are to find that the southwest quarter of the southwest quarter of section 19, 30–23, was known oil land, we must also find that every forty acres in a tract aggregating forty or fifty sections is of the same character. Having in mind this aspect of the case, perhaps we should supplement the testimony of Dr. Branner with the views of "practical oil men." Frank Barrett, a witness for the Government, was sixty-seven years old, and had been in the oil business all of his life—after 1905 in California. He examined 30–23 in 1899, and "recommended the entire south half of the township as good oil-bearing territory." And yet he testified:

"I believed the country might produce oil, and I was examining it with reference to its character as an oil prospect. I knew of no discovery of oil in the township and heard of none. I could not have said 'this is known oil territory.' I could only have said that, in my opinion, it would prove to be such. My experience extends back pretty nearly to the time the first oil well was sunk in this country. I have seen promising oil territory develop—not oil—but I have seen them throw out what was pretty near as good as oil—gas—plenty of it, that was utilized for manufacturing purposes. I have observed promising indications very frequently that didn't pan out. The oil business is a good deal like elections. I don't think the percentage of failures in the oil business is greater than 50% if it is gone into intelligently and systematically, but still, at the same time, you can't—well, I will illustrate to you. In one section a well down 3,200 feet and no oil; the next section to it 250 feet, and good

3923 producer. A high-priced expert couldn't see a bit deeper into the ground than another. The oil doesn't always appear where

they say it will. The true expert is the drill. You couldn't say that a territory is known oil ground till you put a drill in it. It is not known till it is proven."

W. E. Youle, an operator of long experience, also produced as a witness by the Government, having first stated that he regarded the Elk Hills as oil territory, testified:

"I didn't at that time come to the conclusion as to the depth we would have to sink. That would be out of the question. I never heard such a question asked before. It would be far from an experienced man's ideas to think of such a thing. There is a gamble in the oil business, and we are willing to go just as long as the string will let us or the money will let us, and often go very deep; and I do not believe that I ever heard an expert oil man or a geologist ask the question before what he thought of depth, because it is so utterly foolish to think that a man could tell anything at all about the depth."

And again:

"I know a man that had sixteen dry holes and made a million dollars after that. He got oil in the same country. He crept out and got it.

"The fact that oil is found on one section is not evidence that it may be found in every section in the township: there may be kidneys. Oil is not contained like a river underground, but in kidneys. While you are in the oil sand all the time, we know by experience that there are dry holes drilled in oil sand. Had those been drilled, the first one, two, or three, you might condemn the territory and throw it out, the same as the Associated did. It might have been possible to make a well for the purpose of getting the land cheap. I have had fellows do it on me, who owned the ground, and get the sand and wouldn't tell about it and you had a dry hole.

"The discovery of oil in one section or quarter section does not indicate to a practical oil man that oil will be discovered in every section in that township. It implies this: If you get oil in this section, experience has taught us that oil is not just in that little space in that well, but that it has a direction somewhere. And immediately you will find oil men locating and acquiring lands quite a distance from that well. You find that among oil men because experience has taught that there is a direction to that oil vein."

By "oil territory," it would seem to be clear, these and other Government witnesses mean territory where the observable geological conditions are such as to justify expenditures in prospecting, and prospecting by those who are able to take the chances. Using the language of the last-named witness:

"I had had no experience in that field to the extent of $50,000.00 in one hole. I could drill 3,500 or 4,000 feet for $50,000.00 or less.

"I did not contemplate having to go that far. The oil business is a gamble. It is not like farming. You just bet that you don't go down that deep, and that territory was good to have bet on. If
3924 you win once in four or five times, you make a lot of money. That is the reason why I would have advised people to spend

$50,000.00 or $100,000.00 there. I wouldn't advise widows and orphans and dishwashers and cooks who could not risk money; but if you wanted a chance to make a million dollars I would pick the Elk Hills quicker than any piece of land in there, because the formation justifies what I say."

As expressing the general views of the geologists produced by the defendant we can perhaps do no better than to quote the conclusion of Frank M. Anderson, who testified at great length touching both the geology of oil and the economic factors to be considered in producing and putting it upon the market, as well as in relation to local conditions in the Elk Hills:

"My conclusion as to the likelihood of the Elk Hills being then or ever being oil territory was negative. That is to say, I did not believe that they were oil-bearing or ever would be found to be oil-bearing. At least, not in paying quantities—not commercially oil-bearing. I suppose that I did expect there might be some insignificant deposits of oil found in them, as there might be in any part of the country between Sunset and Coalinga if there was a well put down in these beds. All of them throughout their whole extent are more or less organic in character, and if a well is put down in a strata containing these organic materials, there would be insignificant and unimportant occurrences of gas and oil found nearly anywhere, and that has been generally the case wherever wells have been drilled so far as I know. But as to these hills containing any commercial deposits of oil, I didn't believe they would, and I don't now believe they would."

It may be of some assistance to refer to the general views of two other geologists, who were not sworn, and who, so far as the record shows, were neutral touching the present controversy and the parties thereto. From certain bulletins prepared by Mr. Ralph Arnold, who, it was stated by Dr. Branner, has done "more work for the United States than any other man in connection with the oil geology in California", and "has the reputation, deservedly, of being an able geologist", the following extracts were read in evidence:

"Anyone at all familiar with the conditions of occurrence of petroleum in the California fields knows that any but the most tentative predictions as to the location of the oil are extremely hazardous. The following suggestions, based on the evidence in hand, although lacking definiteness for the reasons above stated, may be of some assistance to those engaged in developing this field."

3925 And again:

"It must be borne in mind, however, that absolute determination, by work on the surface, of the occurrence or nonoccurrence of oil in any one locality is not possible. The best that can be done is to calculate the degree of probability on the basis of surface indications and structural conditions."

And from a bulletin issued relative to another California field by Mr. Robert Anderson, who was Mr. Arnold's assistant, and upon his

resignation was put in charge of the petroleum work in California by the United States Survey, the following is taken:

"For an undeveloped region such as this, in which the character of the rocks makes it not impossible for oil to be present, but which for the most part has not been subjected to experimental test by the drill and in which the local tests made have been inconclusive, it is of course impossible to reach positive conclusions as to the occurrence of oil in commercial quantities at depths."

With the observable facts and conditions as we have sketched them, interpreted in the light of geologic science, should it be held that at the time of their selection in 1904 these lands were known to be valuable for petroleum? Upon behalf of complainant it is conceded that the available information was insufficient to constitute a "discovery", as that term is used in the mineral land laws, and that therefore the lands were not locatable or enterable as mineral lands. Butte Oil Co., 40 L. D. 602. But it is contended that land may be "known to be valuable" for its mineral content, and yet such knowledge be insufficient to constitute "discovery". Manifestly, from this view, if adopted, it would necessarily follow that there are bodies of unreserved public lands for the private acquisition of which Congress has made no provision. But whether "discovery" in a legal sense necessarily implies actual exposure to the eye, is an inquiry not directly involved here, and in view of its far-reaching importance, its definitive answer should await a suit in which it is directly put in issue. While, therefore, we put aside as being of
3926 doubtful relevancy the decisions which define "discovery", especially in the case of metaliferous deposits, we are inclined to regard as in point cases construing and applying section 2333 of the Revised Statutes of the United States prescribing the procedure where a lode is embraced within a placer claim. It is there provided that "where a vein or lode * * * is known to exist within the boundaries of a placer claim," an application for patent for placer which does not include an application for the lode, shall be construed as a waiver by the applicant of any claim to the lode, and the title thereto shall remain in the United States, notwithstanding the placer patent. The granting act under consideration here excludes from the grant all the lands which at the time of their selection by the grantee were known to be valuable for their minerals. The terms of exclusion in the two statutes, it will be observed, are closely analagous, if not identical in meaning. In construing and applying section 2333, it was said, in Sullivan v. Iron-Silver Mining Co., 143 U. S. 431:

"Defendants offered a mass of testimony, the scope of which was similar to that condemned as insufficient in the case of Iron Silver Mining Co. v. Reynolds, supra (124 U. S. 374). Its purport was that it was commonly believed that underlying all the country in that vicinity was a nearly horizontal vein or deposit, frequently called a blanket vein; and that the parties who were instrumental in securing this placer patent shared in that belief, and obtained the patent with

a view to thereafter developing such underlying vein. But whatever beliefs may have been entertained generally, or by the placer patentees alone, there was up to the time the patent was obtained no knowledge in respect thereto. It was, so far as disclosed by this testimony, on the part of everybody, patentees included, merely a matter of speculation and belief, based not on any discoveries in the placer tract, or any tracings of a vein or lode adjacent thereto, but on the fact that quite a number of shafts sunk elsewhere in the district had disclosed horizontal deposits of a particular kind of ore, which it was argued might be merely parts of a single vein of continuous extension through all that territory. Such a belief is not the knowledge required by the section. In the case referred to this court said: 'There may be difficulty in determining whether such knowledge in a given case was had, but between mere belief and knowledge there is a wide difference. The court could not make them synonymous by its charge, and thus in effect incorporate new terms into the statute'."

3927 See also Iron Silver Mining Co. v. Reynolds, 124 U. S. 377; United States v. Silver M. Co., 128 U. S. 673; Migeon v. Montana Central Ry. Co., 77 Fed. 249; Thomas v. South Butte M. Co., 211 Fed. 105; Barnard Realty Co. v. Nolan, 215 Fed. 996.

But of more decisive importance, the Government contends, is the comparatively recent case of United States v. Diamond Coal & Coke Co., 233 U. S. 236. Upon it, it places its chief reliance, and throughout the trial its representatives have studiously sought to establish a state of facts upon which to predicate the claim that in their legal aspects the two cases are substantially identical. The Diamond coal suit was brought to set aside, for fraud, homestead patents to what were alleged to be coal lands, in the State of Wyoming. The relief prayed for was granted by the Circuit Court of Appeals, and in affirming the decision the Supreme Court took occasion to re-state in comprehensive form the principles under which the issues in such a suit are to be determined. After referring to the familiar doctrine that the Government must bear the burden of proof, and "sustain it by that class of evidence which commands respect, and that amount of it which produces conviction," the court said:

"To justify the annulment of a * * * patent as wrongfully covering mineral lands, it must appear that at the time of the proceedings which resulted in the patent the land was known to be valuable for mineral; that is to say, it must appear that the known conditions at the time * * * were plainly such as to engender the belief that the land contained mineral deposits of such quality and in such quantity as would render their extraction profitable, and justify expenditures to that end. If at the time the land was not thus known to be valuable for mineral, subsequent discoveries will not affect the patent. If the proofs were not false then, they cannot be condemned nor the good faith of the applicant impugned by reason of any subsequent change in the conditions. We say 'land known at the time to be valuable for its *for its* minerals,' as there are vast

tracts of public land in which minerals of different kinds are found, but not in such quantity as to justify expenditures in the effort to extract them. It is not to such lands that the term mineral in the sense of the statute is applicable."

The novelty, if any there be, in this re-statement of the rule, is to be found in the suggestion that the requirement of "knowledge"
3928 of the mineral character of the land is satisfied by knowledge of "conditions" which are "plainly such as to engender the belief" that the land is valuable for its minerals. To be mineral in fact, it is further explained, the lands must contain "mineral deposits of such quality and in such quantity as would render their extraction profitable and justify expenditures to that end." Of course, it will not be assumed that the court intended to repudiate the doctrine which it had announced in Iron Silver Mining Co. v. Reynolds, and had reaffirmed in Sullivan v. Iron Silver, etc., supra, from which we have already quoted. There is no real conflict. The distinction is to be found in the fact that in one case the "belief" referred to was without any substantial basis, whereas in the other it was induced by deductions which the responsible, qualified, practical man would naturally make. The "belief" approval in the coal case is an intelligent, rational belief. It is the knowledge acquired through scientific deduction, or through reasonable inference, by persons competent, because of their learning or experience, to make such deductions or to draw such inferences. The court having there reasoned from visible to invisible conditions, it is here contended that if the conclusion was warranted that a coal measure lay beneath the surface of the lands in suit, by parity of reasoning it should be held here that there is oil beneath the surface of these lands. Two assumptions are involved. The first is that the occurrence of petroleum in the earth is subject to the same geological laws as coal measures. But is such the fact? True, both are to be found in horizontal or stratified deposits, but the record abundantly shows that the close analogy ends there, and in the case of oil not only are there more unknown factors in correlating the known with the unknown, but there are contingencies incident to commercial exploitation to which coal is not subject. Such in terms, as we have already seen, is the testimony of Dr. Branner. "In coal mining," he says, "one can get a very close idea of the tonnage to be taken out of a given
3929 tract of land; that is, we can calculate the product * * *. Now, in petroleum mining you cannot do that exactly; there is an element of uncertainty about it that you don't find in coal mining." Indeed the difference must be obvious. A coal bed is fixed and unchangeable in relation to the inclosing strata. It may be bent or broken together with the folding or crushing of the earth's crust, and its original continuity may be interrupted by faulting or erosion but its relative position remains unaltered. Not so with oil. It is mobile. It is not sought in the shales in which it originates, but in the porous sand-strata into which it migrates. If it has not escaped from the sands through some break in the continuity of the

inclosing strata, it may be uniformly persistent, but with no such degree of certainty as in the case of coal or phosphates. Owing to the pressure of water and gas, it may be forced to and held in "pockets," or confined to those portions of the folded sand stratum lying between certain horizontal planes or levels, above or below which zone there may be nothing but gas or water. For that reason, while the sand stratum may, like a coal bed, be continuous, and may be found at any point beneath a given area, it may turn out to be wholly barren of oil in one place, while carrying an abundant supply but a short distance away. Until recently at least, according to the testimony of Dr. Branner, to encounter water in driving a well rendered the enterprise hopeless, in the eyes of practical oil men. So too it has been more or less generally thought that oil does not abide the presence of sea water, and there is evidence to the effect that in this region sea water may be encountered from 1200 to 1500 feet beneath sea level.

Now as to the second assumption, that the "known conditions" are substantially the same here as they were in the coal case. In that case thirty-four patents had been issued to representatives of the coal company, to 2,840 acres of land, upon what are known as soldiers' additional homestead entries. The defendant, to
3930 whom the lands were conveyed, was engaged in mining coal upon a large scale from adjacent lands, and its well-informed and experienced superintendent acted upon its behalf and as its agent in the acquisition of patents, the proceedings for which were initiated in 1899, and continued through two or three years. The court said:

"For many years the district in which the lands were situate had been known to contain coal. They were surveyed in 1874, and the surveyor reported one of the sections as coal land, the others being contiguous to lands similarly reported. This was shown in the field notes and upon the official plats. The lands were in a valley, three or four miles in width, bounded on the east and west by foothills. A thick bed of coal was disclosed in the eastern face of the western hills, but its quality was not such as to make it of commercial value. Along the western base of the eastern hills was the outcrop of another coal bed. This outcrop had been weathered down and in some places covered by the wash from above, but it could be traced upon the surface for several miles. It had been opened up at different places, and the openings disclosed a coal bed, from six to fourteen feet in thickness, dipping to the west at an angle of from fifteen to twenty-five degrees from the horizontal, as did the Cretaceous rocks with which it was interstratified. This coal was of superior quality and recognized commercial value, and the rocks containing it were the coal-bearing strata of that region. The lands in controversy were west of the outcrop, in the direction of the dip. Some were near the outcrop and the east line of the farthest section was about a mile and a half away. There was nothing upon their surface showing the presence of coal beneath, nor anything indicat-

ing that the bed outcropping on the east and dipping to the west did not pass through them. Unless valuable for coal, they were not worth to exceed a dollar and a quarter an acre. They were arid sagebrush lands, about 7,000 feet above sea level, and afforded very limited pasturage. Without irrigation they were not susceptible of cultivation, and the cost of securing water for that purpose was prohibitive.

"Attracted by this outcrop, the coal company opened a mine thereon, in the vicinity of these lands, in 1894. In the beginning the output of the mine was small, but it reached 183,750 tons for 1897, 259,608 tons for 1898, and 441,277 tons for 1899."

It was further shown that this superintendent, who had knowledge of all the conditions, had in 1898 engineered a project for procuring the lands (which he deemed to be valuable for coal) through the medium of "dummy" homesteaders. These dummies having been paid $500.00 each by the company, later relinquished upon its request, so that its superintendent and another of its representatives might make the soldiers' additional entires. In 1898 this same superintendent had filed in the land office a sworn declaration attending his application to purchase one of the tracts in controversy, in
3931 which he stated that it contained a valuable vein of coal.

Within a half mile in each of three directions from the lands in question there was a quarter section upon which a good bed of coal eight feet in thickness had been disclosed. And this the coal company had purchased from one Lees for $3,400.00. The lands in question, unless valuable for coal, were not worth to exceed $1.25 per acre, and yet the company willingly spent at least ten times that amount to acquire the title.

"It was hardly intending to make an aimless or grossly excessive expenditure. It was a practical concern, operated by practical men. It had located a mine upon the outcrop five years before, and in the meantime had proved the wisdom of the undertaking by its mining operations. They had disclosed the existence of an extensive bed of valuable coal dipping to the west under the valley, and in that way had supplemented the evidence afforded by the outcrop and its surroundings."

The court summed up and closed the discussion as follows:

"An exposure to the eye of coal upon the particular lands was not essential to give them a then present value for coal mining. They were all adjacent to the outcrop and above the plane of the coal-bearing strata dipping under the valley. In alternate even-numbered sections they substantially paralleled the outcrop for seven miles, and in two places were separated from it by only a few rods. Those to the north were opposite the company's developed mine (No. 4), and those to the south were opposite the tract acquired through Lees, upon which good coal was disclosed. The outcrop, the disclosures in the vicinity, and the geological formation pointed with convincing force to a workable bed of merchantable coal extending under the valley and penetrating these lands. These conditions were

open to common observation, and were such as would appeal to practical men and be relied upon by them in making investments for coal mining. They did so appeal to the Cumberland people, as well as this company, both large concerns represented by men of experience, understanding the uncertainties and hazards of the business as well as its rewards.

"It will be perceived that we are not here concerned with a mere outcropping of coal with nothing pointing persuasively to its quality, extent, or value; neither are we considering other minerals whose mode of deposition and situation in the earth are so irregular or otherwise unlike coal as to require that they be dealt with along other lines."

Manifestly a case so remotely analagous can not be deemed to be conclusive of the issues here, especially in the light of the caution which the court took the pains to express in the closing paragraph of the opinion. The known conditions here are much further removed from the unknown, and even were the geological occurrences comparable, the character of petroleum is such that, as we have
3932 seen, speculation as to its presence at any given place beneath the earth's surface is attended with uncertainties from which explorations for coal are free. And other considerations to which the court there attached much weight, if not wholly wanting here, are so weakened as to have but little persuasive force. Here, as there, the lands had only a nominal value, but the defendant company here was paying nothing for them. Apparently it was under the necessity of taking these lands or incurring the risk of getting nothing under its existing grant. Upon the other hand, in the coal case, so persistent was the zeal of the coal company to acquire the lands that it not only resorted to fraudulent practices to obtain them, but was willing to pay at least ten times what they were worth for any purpose other than coal. As the court points out, the evidence of valuable coal beds was of such character, and was so abundant, as to induce intelligent and practical operators, not merely to prospect for coal, but to open up coal mines, and that such was the view of the company's superintendent there could be no doubt. Though still in its employ at the time of the trial, he was not called by the company as a witness to contradict or explain damaging statements and admissions attributed to him. Here, from the contemporary correspondence and maps and other data, and such testimony as appears to be credible touching oral statements made by different representatives of the company from time to time, we are convinced that Eberlein and the geologists, and also, it must be presumed, some of their superiors, regarded the lands as possible oil lands, and hoped that they might turn out to be such; but no one went further than to regard them as "prospecting" territory. Certain incidents, it must be admitted, are equivocal, and are susceptible of a construction which tends to give them a sinister aspect. Chief of these perhaps is the fact that Eberlein kept most of the correspondence and papers relating to the selection in a private file—conduct which the Govern-

ment contends signifies a consciousness of wrongdoing. Upon
3933 the other hand, it is pointed out that he had but recently come from New York to take charge of appellant's land department, and that he found it in an unsatisfactory condition; that the business of appellant was transacted through departments; that he soon found that his views were at variance with those of the heads of other departments who were in closer touch with the local management; and that he was solicitous about his records in order that they should be available for his use in absolving himself from blame should the San Francisco management be criticised by the New York officers, as he anticipated would be the case. Both theories are plausibly supported, but neither is entirely satisfactory. Upon the one hand, it is difficult to see why he did not at once lay the matter before the New York officers, and, upon the other, if he was conscious that his records would incriminate him, we are at a loss to understand why he should have taken pains to restore and preserve them after their partial destruction in the San Francisco fire, and especially after he knew that the only outstanding copies or duplicates had been totally destroyed. So of the incident of the proposed lease of the lands belonging to the company lying near those in suit, to a subsidiary organization, for mineral exploration. In one aspect, his objection to such lease would seem to imply a knowledge or belief that the lands in question were valuable for oil, and, upon the other, he plausibly explains that in view of the known attitude of the General Land Office and the prevailing speculation as to oil in the general locality of these lands, for the appellant to lease these or other lands which it owned in close proximity, for mineral exploration, would naturally arouse a suspicion on the part of the land officials that it, the applicant, had undisclosed information that the lands were valuable for oil, which, even though without foundation in fact, would be sufficient to cause an indefinite suspension of the application for patent.
3934 But whatever view may be taken of these incidents, manifestly neither the mental nor the moral attitude of Eberlein furnishes any substantive evidence touching the real character of the land or the controlling issue which we must decide. In this respect the case is readily distinguishable from the Diamond Coal case, where the company's superintendent was not only personally acquainted with the lands and all their surroundings, but was well-informed upon the subject of coal mining, and competent to form an intelligent judgment. Eberlein knew nothing about oil, was never upon the lands, and personally was unfamiliar with local conditions. One of his assistants, of whom he inquired, had a general knowledge of the lands; the company maintained other agencies for securing information touching land selections, to which, however, he seems not to have resorted. Apparently he entertained a view of the law prevailing in some quarters that the only investigation required before making application for patent was of the surface conditions upon the lands applied for. Upon recently coming to the land department of the

company he found selections under the grant in arrears, and if we say that he was anxious to make selections before all the available lands were gone; that he hoped that these lands would ultimately turn out to be oil lands; that he was anxious to procure patent before there should be such development upon, or in close proximity to, them as might demonstrate that his hope was not without substance; and that he had some vague fear that other representatives of the company had information or belief inconsistent with his representations, or would take a course tending to cast discredit thereon, and compromise him, his conduct may be explained better than by any other theory which has been suggested.

It is further contended that it was generally believed in the community in 1903 and 1904 that these lands contained valuable oil deposits. Some witnesses confirm and others deny the prevalence of such belief. Of course mere popular opinion upon such a subject is of no value. As already suggested, to amount to knowledge, the "belief" must be the rational conclusion or the scientific deduction of one who is qualified by experience or learning to form an intelligent judgment. Referring to coal, for illustration, would not nine out of ten ordinary men consider an outcrop sufficient to warrant a "coal location", especially if the venture entailed only a nominal expense. The outcrop would probably engender in the ordinary man a belief in the existence of an underlying coal bed. But, as stated in the Diamond coal case, the belief that rests upon "a mere outcropping of coal, with nothing pointing persuasively to its quality, extent, or value," is insufficient. And inasmuch as exploration for oil is admittedly subject to greater contingencies than coal, empirical belief relative to its occurrence is correspondingly less reliable. (And see the pertinent language hereinbefore quoted from Sullivan v. Iron Silver M. Co., 143 U. S. 431, 435, 436.) Moreover, it is difficult, after the lapse of years and the change of conditions, to reproduce a faithful picture of the state of mind existing in 1903 and 1904. It is easy enough for one who shared in the optimism characterizing the oil boom of 1900 and 1901 now unconsciously to project that feeling over in 1903 and 1904, or unconsciously to relate to that period the persuasive influence of more recent discoveries, better methods of extraction, and improved marketing conditions. Between 1904 and the time the testimony was taken, there had been a material increase in the price of oil. A railway had been extended up into the Midway valley. A Government Bulletin had been issued suggesting the view that oil would probably be found nearer the surface in the Elk Hills than had theretofore been thought probable. But most important of all perhaps was the striking of an enormous flow of gas in the Honolulu well in the Buena Vista hills, at a depth of about seventeen hundred feet, and the subsequent striking of oil in the same well. It is to be inferred that considerable excitement followed this discovery. The gas was encountered in July, 1909, oil in the

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spring of 1910, and a few months later, in December, 1910, this suit was instituted, and thereafter, in due time, the testimony was taken. Whether these and other conditions, nonexistent in 1903 and 1904, had anything to do with the commencement of the suit, it is unnecessary to inquire. It is sufficient to say that no suit was brought or testimony taken until after the conditions arose, and that consideration of such new conditions must of necessity have given a measure of color to the testimony. The outstanding and undisputed fact is that, if there was faith at all in 1903–4, it was faith without works. While development was going on in the McKittrick-Midway-Sunset belt, there was an absolute want of activity in the Elk Hills. Not only was there no expensive exploration, but locations were being permitted to lapse, and there was not even sufficient interest to induce locators to maintain their rights by the comparatively inexpensive device of relocation. Moreover, although defendant's application was pending for a year, and it embraced lands covered by numerous locations, and though notice of its pendency was given by publication, as required by the regulations of the land department, no objection was raised either by the general public or the parties interested in the oil locations. In the meantime the department had sent a special agent to make inspection, and he had reported that the lands were non-mineral. True, his examination was hasty and superficial, but there is no suggestion of fraud or bad faith upon his part. Both he and his superiors at Washington had knowledge of the fact that although the lands had, for over three years, been under suspension from agricultural entries, no serious effort was being made by any one of the numerous locators to demonstrate the existence of oil in commercial quantities or to acquire
3937 title. And under such circumstances it is perhaps not strange that they readily concluded the land was non-mineral.

Let it be granted that the market for petroleum products was low at that time, and transportation facilities meager, and that capital was conservative, the fact remains that although, by the earlier boom, the attention of the experienced and inexperienced, the informed and uninformed, all classes—capitalist as well as promoter—had been drawn to this territory, and though in the near-by McKittrick-Midway-Sunset belt both exploration and operation were going forward, the defendant company was permitted, after public notice, to acquire a patent without opposition, protest, or question. It is difficult to reconcile such facts with the theory that it was generally believed that the lands were valuable for their petroleum content.

Without further discussion, our general conclusion is that the lands were not, in 1903–4, known to be valuable for their mineral. The conditions were such only as to suggest the probability that they contained some oil, at some depth, but nothing to point persuasively to its quality, extent, or value. Or, putting it in another way, the conditions were such as to suggest the possibility of oil in paying quantities, and to induce the more venturesome,—such as were willing

to take chances,—to prospect the field; but we are satisfied they were not "plainly such as to engender the belief" that any given section or other legal subdivision contained oil of such quality and quantity, and at such depth, as would render its extraction profitable. Having reached this conclusion, we deem it unnecessary to decide whether the evidence offered by the appellants touching exploration and development work within and near township 30–23, since 1904, which they contend demonstrates that the lands are not valuable for oil, is relevant for any purpose.

The decree will be reversed, with directions to dismiss the bill.

Gilbert, Circuit Judge, dissents.

(Endorsed:) Opinion. Filed May 6, 1918. F. D. Monckton, clerk, by Paul P. O'Brien, deputy clerk.

3938 United States Circuit Court of Appeals for the Ninth Circuit.

THE SOUTHERN PACIFIC COMPANY, A CORPORATION, The Southern Pacific Railroad Company, a corporation, Homer S. King, trustee, James K. Wilson, trustee, The Central Trust Company of New York, a corporation, The Equitable Trust Company of New York, a corporation, The Kern Trading & Oil Company, a corporation, appellants, *vs.* THE UNITED STATES OF AMERICA, APPELLEE.	No. 2958. Decree.

Decree U. S. Circuit Court of Appeals.

Appeal from the District Court of the United States for the Southern District of California, Northern Division.

This cause came on to be heard on the transcript of the record from the District Court of the United States for the Southern District of California, Northern Division, and was duly submitted.

On consideration whereof, it is now here ordered, adjudged, and decreed by this court, that the decree of the said District Court in this cause be, and hereby is, reversed, and that this cause be, and hereby is, remanded to the said District Court with directions to dismiss the bill.

(Endorsed:) Decree. Filed and entered May 6, 1918. F. D. Monckton, clerk, by Paul P. O'Brien, deputy clerk.

3939 United States Circuit Court of Appeals for the Ninth Circuit.

THE SOUTHERN PACIFIC COMPANY, A CORPORATION, ET AL., appellants,
vs.
THE UNITED STATES OF AMERICA, APPELLEE. } No. 2958.

Order staying issuance of mandate under rule 32.

Upon application of Mr. Albert Schoonover, counsel for the appellee, and good cause therefor appearing, ordered mandate of this court under rule 32 in the above-entitled cause stayed to and including August 1, 1918.

WM. W. MORROW,
WM. H. HUNT,
United States Circuit Judges.

Dated: San Francisco, Cal., June 4, 1918.

(Endorsed:) Order staying issuance of mandate under rule 32. Filed June 4, 1918. F. D. Monckton, clerk.

3940 United States Circuit Court of Appeals for the Ninth Circuit.

THE SOUTHERN PACIFIC COMPANY, ET AL., APPELLANTS,
vs.
THE UNITED STATES OF AMERICA, APPELLEE. } No. 2958.

Petition for appeal to the Supreme Court of the United States.

The United States of America, conceiving itself aggrieved by the decree of the United States Circuit Court of Appeals for the Ninth Circuit, entered in the above-entitled cause on the sixth day of May, 1918, does hereby appeal from said decree to the Supreme Court of the United States, for the reasons specified in the assignment of errors filed herewith, and prays that this appeal may be allowed and that a transcript of the record and proceedings in said cause, with all things concerning the same, duly authenticated, may be sent to the Supreme Court of the United States.

By direction of the Attorney General.

ALBERT SCHOONOVER,
Special Assistant to the Attorney General.

It is hereby ordered that the appeal in the above-entitled cause to the Supreme Court of the United States be, and it is hereby, allowed as prayed.

WM. H. HUNT,
Judge of the United States Circuit Court of Appeals, Ninth Circuit.

Dated: July 1, 1918.

3941 United States Circuit Court of Appeals for the Ninth Circuit.

THE SOUTHERN PACIFIC COMPANY, ET AL., APPELLANTS,
vs.
THE UNITED STATES OF AMERICA, APPELLEE.
} No. 2958.

Assignment of errors on appeal to the Supreme Court of the United States.

Comes now the United States of America, by direction of the Attorney General, and assigns error in the decree of the United States Circuit Court of Appeals for the Ninth Circuit entered in the above-entitled cause May 6th, 1918, as follows:

1. Error in finding and deciding, contrary to the facts set forth in the bill of complaint and established by the evidence, that the lands embraced in the patent dated September 12, 1904, from the United States to the Southern Pacific Railroad Company, were not mineral lands excluded from the operation of the grant made by the act of Congress approved July 27, 1866, 14 Stat. 292, and joint resolution No. 87, approved June 28, 1870, 16 Stat. 382, under which said patent was issued.

2. Error in not finding and deciding, as set forth in the bill of complaint and established by the evidence, that the patent dated December 12, 1904, from United States to the Southern Pacific Rail-
3942 road Company, was procured through fraud of the railroad company, in that said company falsely represented to the Land Department of the United States that the lands embraced in said patent were non-mineral and of the character granted by the act of Congress approved July 27, 1866, 14 Stat. 292, and joint resolution No. 87, approved June 28, 1870, 16 Stat. 382, under which said patent was issued.

3. Error in reversing the decree of the District Court of the United States for the Southern District of California, entered August 9, 1915, with directions to dismiss the bill of complaint.

ALBERT SCHOONOVER,
Special Assistant to the Attorney General.

(Endorsed:) Petition for and order allowing appeal to Supreme Court U. S., and assignment of errors. Filed July 1, 1918. F. D. Monckton, clerk, by Paul P. O'Brien, deputy clerk.

3943 United States Circuit Court of Appeals for the Ninth Circuit.

THE SOUTHERN PACIFIC COMPANY ET AL., APPELLANTS,
vs.
THE UNITED STATES OF AMERICA, APPELLEE. } No. 2958.

Praecipe for Transcript of Record on Appeal to the Supreme Court of the United States.

To the clerk of the said court:

SIR: Please make and furnish me with a certified transcript of the record (including the proceedings had in said Circuit Court of Appeals), for use on appeal to the Supreme Court of the United States in the above-entitled cause, the said transcript to consist of a copy of the following:

1. Printed transcript of record on which the cause was heard in said Circuit Court of Appeals, to which will be added a typewritten copy of the following-entitled proceedings that were had, and of the papers that were filed in said Circuit Court of Appeals, viz:
2. Order of submission, entered May 10, 1917;
3. Order directing filing of opinion, etc., entered May 6, 1918;
4. Opinion, filed May 6, 1918;
5. Decree, filed and entered May 6, 1918;
6. Order, filed June 5, 1918, staying issuance of mandate;
7. Petition for an order allowing appeal;
8. Assignment of errors;
9. Original exhibits;
10. Praecipe for transcript of record;
11. Certificate of clerk, U. S. Circuit Court of Appeals to said transcript;
12. Citation on appeal.

ALBERT SCHOONOVER,
Counsel for Appellee.

Service of a copy of the within praecipe is admitted this 1st day of July, A. D. 1918.

CHARLES R. LEWERS,
JOSEPH H. CALL,
GUY V. SHOUP,
Counsel for the Appellants.

(Endorsed:) Praecipe for Transcript of Record on Appeal to the Supreme Court of the United States. Filed July 1, 1918. F. D. Monckton, clerk.

3944 United States Circuit Court of Appeals for the Ninth Circuit.

THE SOUTHERN PACIFIC COMPANY, A CORPORATION, THE Southern Pacific Railroad Company, a Corporation, Homer G. King, Trustee, James K. Wilson, Trustee, The Central Trust Company of New York, a Corporation, The Equitable Trust Company of New York, a Corporation, The Kern Trading & Oil Company, a Corporation, appellants, *vs.* THE UNITED STATES OF AMERICA, APPELLEE.	No. 2958.

Certificate of clerk U. S. Circuit Court of Appeals to Transcript of Record upon Appeal to the Supreme Court of the United States.

I, Frank D. Monckton, as clerk of the United States Circuit Court of Appeals for the Ninth Circuit, do hereby certify the foregoing three thousand nine hundred and forty-three (3,943) pages, numbered from and including 1 to and including 3943, marked respectively, Volume I, II, III, IV, V, VI, to be a full, true, and correct copy of the record made pursuant to the praecipe filed by counsel for the appellee on the first day of July, A. D. 1918, under Rule 8 of the Rules of the Supreme Court of the United States, in the above entitled cause, including the Assignment of Errors on appeal to the said Supreme Court, and of all proceedings had and of all papers, including the opinion filed in said Circuit Court of Appeals in the above-entitled case, as the originals thereof remain on file and appear of record in my office, and that the same, together with the accompanying original exhibits, viz: Plaintiff's Gleaves-A to Gleaves-G, incl., Veatch-I, Martin-K, Hubbard-M, N, Martin-O, P, Q, R, Veatch-S to Veatch-Y, incl., Z, Veatch-AA, BB, CC, DD, Eberlein-EE to Eberlein-ZZ, incl., Hill H^a to $Hill^4$, incl., Sarnou J-1, Sarnou J-2, Shreve L., AAA to HHH, incl., QQQ to ZZZ, incl., 4-A to 4-W, incl., $4-H^1$, $4-H^2$, Taff-5H to Taff-5K, Kruttschnitt 5-L to Kruttschnitt 5-O, 5-P to 5-X, incl.; Treadwell 5-Y, Treadwell 5-Z, Treadwell 6-A, Winsor 6-B to Winsor 6-P, incl., 8-Z, 9-A to 9-Z, incl., 10-A to 10-L, incl., Williams 10-M to Williams 10-P, incl., 10-Q to 10-Z, incl., 11-A to 11-Z, incl., Kingsbury 12-A to Kingsbury 12-L, incl., Stewart 12-N, Stewart 12-P, Stewart 12-R to Stewart 12-X, incl., 12-Y, 12-Z, 13-a to 13-C, incl.; defendants' 1-4, Overton 5, Overton 6, 10, Thompson 12, Preetzman 13, 14, 15, Luke 16, Anderson 17 to Anderson 28, incl., Shaw 29 to Shaw 62, incl., Shaw 63 to Shaw 108, incl., Taff 113, Taff 114, Dumble 115 to Dumble 160, incl., Kruttschnitt 161 to Kruttschnitt 165, Shay 166-a, Shay 166-b, 167 to 171, White 172, 173, White 174 to White 178, Russell 179, Treadwell 180, Treadwell 181, Armstrong 182 to Armstrong 184 Bass 185 to Bass 188, Nevil 189 to Nevil 192, 193 to 200,
3945 Kingsbury 201 to Kingsbury 203, Stewart 204, Stewart 205;

and miscellaneous exhibits: Book, documents and evidence, part of record on appeal, not to be printed, per stipulation; package of papers and pamphlets, deposited with special examiner, not requested to be marked exhibits, constitute the Transcript of Record upon Appeal to the Supreme Court of the United States in the above entitled cause, as made and certified pursuant to the said praecipe.

Attest my hand and the seal of the said the United States Circuit Court of Appeals for the Ninth Circuit at the city of San Francisco, in the State of California, this 6th day of July, A. D. 1918.

[SEAL.] F. D. MONCKTON, *Clerk*,
By PAUL P. O'BRIEN, *Deputy Clerk*.

3946 United States Circuit Court of Appeals for the Ninth Circuit.

THE UNITED STATES OF AMERICA, APPELLANT,
vs.
THE SOUTHERN PACIFIC COMPANY ET AL., APPELLEES. } Citation.

To the Southern Pacific Company et al.:

You are hereby cited and admonished to be and appear in the Supreme Court of the United States at the city of Washington, in the District of Columbia, sixty (60) days after the date of this citation, pursuant to an appeal allowed and filed in the clerk's office of the United States Circuit Court of Appeals for the Ninth Circuit, wherein the United States of America is appellant and you are appellees, to show cause, if any there be, why the decree reversing the judgment of the United States District Court for the Southern District of California, Northern Division, in the above entitled cause, as in said appeal mentioned, should not be corrected and why speedy justice should not be done to the parties in that behalf.

Witness the Honorable William H. Hunt, Judge of the United States Circuit Court of Appeals for the Ninth Circuit, this first day of July, 1918.

WM. H. HUNT,
Judge of the United States Circuit Court of Appeals, Ninth Circuit.

Service accepted and copy received of the foregoing citation this first day of July, 1918.

CHARLES R. LEWERS, JOSEPH H. CALL & GUY V. SHOUP,
Attorneys for Appellees.

(Endorsed on cover:) No. 2958. In the Circuit Court of the United States for the Ninth Circuit. The United States of America vs. The Southern Pacific Company et al. Citation. On appeal to Supreme Court U. S. Filed July 1, 1918. F. D. Monckton, clerk, by Paul P. O'Brien, deputy clerk. Albert Schoonover, special assistant to the Attorney General.

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FILED
FEB 26 1919
JAMES D. MAHER,
CLERK.

SUPREME COURT OF THE UNITED STATES

OCTOBER TERM, 1918

No. [redacted]179

UNITED STATES OF AMERICA,
Plaintiff and Appellant,

v.

SOUTHERN PACIFIC COMPANY, et al.,
Defendants and Appellees.

BRIEF FOR APPELLEES.

CHARLES R. LEWERS,
Solicitor for Appellees.

WILLIAM F. HERRIN,
JOSEPH P. BLAIR,
Of Counsel.

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SUPREME COURT OF THE UNITED STATES

OCTOBER TERM, 1918

No. 585

UNITED STATES OF AMERICA,
Plaintiff and Appellant,

v.

SOUTHERN PACIFIC COMPANY, et al.,
Defendants and Appellees.

BRIEF FOR APPELLEES.

Statement of Case.

a. Nature of Suit.

This is a suit brought by the United States, on December 10, 1910, against the Southern Pacific Railroad Company (and others claiming under the railroad company) to cancel a patent issued to this railroad company on December 12, 1904. This patent was issued under the authority of the Congressional grant of July 27, 1866 (14 Stat. 292) and conveyed 6109.17 acres of what are defined as indemnity lands in this grant, that is, lands situated in odd numbered sections more than twenty and less than thirty miles from the line of the railroad. These lands are situated in Township 30 South, Range 23 East, Mount Diablo Meridian, in Kern County, Cali-

fornia. They lie in a low range of hills, called the Elk Hills, near the southern margin of the great central valley of California, the southern part of this great valley being known as the San Joaquin Valley.

The charge in the bill of complaint is that the railroad company knew that these lands in the Elk Hills contained valuable deposits of oil when it filed its selection list in November, 1903, and when it obtained its patent on December 12, 1904, and that it concealed this knowledge from the government. The answer of the railroad company denies this charge and alleges in addition that the lands in suit were not only not known or believed to be valuable for oil at the time they were patented, but are, even now not known to contain oil. Voluminous testimony was taken before a commissioner of the court. No evidence was taken before the trial court itself. A decree was given by the District Court in favor of the government as to all the lands sued for. This decree was reversed by the Circuit Court of Appeals on the ground that the evidence was insufficient to establish the government charge (249 Fed. 794). The case is before this Court on appeal by the government from this decision of the Circuit Court of Appeals.

b. Situation of lands sued for.

The southern end of the great basin of the San Joaquin Valley, in which the lands in suit are situated, is formed by the junction of the Sierra Nevada Mountains on the east and the Coast Range Mountains which swing around from the west, that portion of the Coast Range which borders the south end of the San Joaquin

Valley being given the local name of "Temblor Range". This range has an elevation of from three to four thousand feet above the level of the San Joaquin Valley.

The Elk Hills cover an area about six miles broad and fifteen miles long, the lands in suit being near the middle of this area. The position of these hills and of the lands in suit with reference to the surrounding region is shown on Map No. 1 in the Appendix to this brief. At the western end of these hills, near the town of McKittrick, they are about four miles out from the Temblor Range. Toward the east they diverge from the line of the valley border until at their eastern end near Buena Vista Lake they are fully fifteen miles out in the valley. Another low range of hills, known as the Buena Vista Hills, lies between this eastern end of the Elk Hills and the Temblor Range, about four miles from the latter.

c. Brief outline of history of oil development in this region.

At the time these lands were selected and patented no discovery of oil had been made within their limits or nearer to them than four miles (R. 1729). It is also conceded that up to this moment no oil has been found in any of the ten sections in suit. In 1911 and 1912 a small amount was found in three even sections near the east border of the lands in suit, but this was not in commercial quantities and was obtained at a depth beyond practical drilling as carried on in 1904 (R. 1984-8, 3122-6).

In 1899, as the result of the sensational discovery of oil in the "Kern River field" near the town of Bakers-

field, about thirty miles east of the lands in suit, and also at McKittrick, a few miles west of the lands in suit, an "oil boom" developed in this region during which speculative "locations" for oil were made over a wide extent of territory along the border of the southern end of the San Joaquin Valley. No wells were drilled by these locators and their "claims" were allowed to lapse (R. 501-2). It is conceded that none of these men ever discovered a drop of oil in the lands in suit or in their immediate vicinity.

These locators were not practical oil men, and the character of their operations is well indicated by one of them, W. G. Sylvester, who testified for the government (R. 358-60). He was a dentist and knew nothing about oil, but joined in the rush. Although bound for another locality, he located in the Elk Hills because they "were probably as good as the rest". He had no idea that a discovery was necessary and says that his plan "was to cover as much territory with proper notices and monuments as possible".

This "oil boom" of 1899 also led to the filing of many forest lieu and other agricultural selections in the same region. Protest was at once made by oil locators against these selections. On February 21st and 28th, 1900, following the receipt of these protests, the Commissioner of the General Land Office sent telegrams to the local land officers withdrawing nearly fifty townships from "disposition". These townships were situated along the south and west border of the San Joaquin Valley and included the township in which the lands in suit lie (Exhibit QQQ, R. 1524).

It has been claimed by counsel for the government that this withdrawal suspended even mineral entries and that for this reason those who had made "locations" in the Elk Hills did not proceed to actually drill for oil. This, however, was not the fact. In a letter from the Commissioner to the local land officers dated July 19, 1900, it was stated that "these suspensions do not include mineral lands" (U. S. Geological Survey Bulletin No. 623 "Petroleum Withdrawals and Restorations" page 79), and in a later letter of the Commissioner, dated October 23, 1903, directing a special agent to examine the lands now in suit in connection with the railroad selections, it was again stated that these lands had been "suspended from disposition under the agricultural land laws on account of their alleged mineral (oil) character by telegrams 'P' of February 21 and 28, 1900" (R. 1542).

The same withdrawal included all the lands in the McKittrick, Midway and Sunset Districts, west and south of the lands in suit, in which there was extensive drilling for oil under mining locations from 1899 on, as already related. This development went on in spite of the withdrawal, which indicates that it was generally understood by oil men that their operations were not subject to the withdrawal. The inapplicability of this withdrawal to mineral locations was further evidenced in July, 1900, by a decision of the United States Circuit Court in the district where these lands lie in a bitterly fought contest between the "scrippers" and the "oil locators" (*Olive Land and Development Co. v. Olmstead*, 103 Fed. 568, 578).

The withdrawal of the lands in suit from disposition under the agricultural land laws persisted until February 11, 1904, when they were relieved from suspension. This was due to the report of the special agent of the General Land Office above referred to, E. C. Ryan, who reported to the Commissioner that he had made a careful examination of these particular lands and had found nothing "of any kind that would tend in my opinion to warrant said lands being classed as mineral in character".

His conclusions coincided in this respect with those of the practical oil men of the region. The fact is, as clearly appears from the exhibits introduced on each side (Plaintiff's exhibits Ha to Hd; Defendant's exhibit 13, which is a copy of the California State Mining Bureau Report for 1904) and from the evidence of witnesses to which reference will later be made, that until several years subsequent to the date of the patent now in suit the attention of practical oil men was confined entirely to scattered portions of a narrow strip of land many miles from the Elk Hills and along the base of the Temblor Range, where the sedimentary beds carrying the oil emerged from beneath the floor of the valley and had been uplifted by the elevation of the Temblor Range in past geologic ages.

Subsequent to the patent now in question this development crept slowly out farther into the valley until in 1908, 1909 and 1910 the wonderfully rich Midway field was developed from six to ten miles south of the lands in suit. At McKittrick, however, which is the region

nearest the lands in suit, it was found that the productive oil area did not extend out towards the valley but was confined to very narrow limits (R. 1728, 1842, Exhibit 116).

By 1910 the wells had progressed from the base of the Temblor Range as far as the Buena Vista Hills, which lie between the Elk Hills and the Temblor Range, and here in February, 1910, a well encountered a large flow of gas and oil (R. 1994). The man who drilled this well testified that on the day following this discovery he looked across the valley to the northwest and saw many drilling outfits being hastily moved over into the Elk Hills to begin work there, the discovery in the Buena Vista Hills having encouraged oil men to seek for oil even as far away as the Elk Hills (R. 1994).

The drilling done by the men who entered the Elk Hills as a result of the discovery of oil in the Buena Vista Hills was the first that was done in the township now in suit and in its immediate vicinity. The evidence shows that from 1910 to 1912 these men drilled thirty-six wells (See Exhibits O and 16) in these hills, some to a depth of over four thousand feet (one near five thousand feet), at a total cost of approximately two million dollars.* Only three of these wells found oil at all and these three were closed down after producing 9941 barrels of oil at a cost of $517,613.94 (R. 3122-6).

This suit was started during the height of the drilling excitement in the Elk Hills in 1910.

* The locations and depths of these wells are shown on Exhibit 16 reproduced as Map No. 6 in Appendix to this brief.

d. Selection and patent of lands in suit.

As already stated, the lands in suit lie in Township 30 South, Range 23 East, Mount Diablo Meridian, and are indemnity lands. They were surveyed in 1902 but the official plat of survey was not approved and filed in the local land office until May 16, 1903 (R. 3761). Thereupon for the first time these lands became subject to selection by the railroad company. C. W. Eberlein became land agent of the railroad company in August, 1903. He was immediately impressed by the fact that indemnity selections had been neglected by his predecessor and that large areas had thus been lost (R. 1154-5). He made inquiry whether any recent surveys had been made and, learning of the survey of the lands in question, he at once directed that a selection be made of these lands (R. 1157-8). His assistant, G. A. Stone, land grader for the company, was familiar with these lands from having been in that region frequently and assured Eberlein that they were non-mineral lands (R. 1028-9, Stone; 1088, 1137, Eberlein).

This selection list was filed in the local land office on November 14, 1903, accompanied by the affidavit of C. W. Eberlein stating that the lands were not "interdicted mineral lands", and that they had been examined by employees of the company and that "to the best of his knowledge and belief" none of them were mineral lands (R. 3754, 3829, 3832).

This selection was rejected by the local land office on November 17, 1903, on the ground that the lands had been suspended from entry by the general withdrawal

order of February 28, 1900, already referred to (R. 3756-7). On December 11, 1903, the railroad company filed an appeal from this rejection (R. 3863-7). In the meantime the railroad company had applied to the Commissioner of the General Land Office through its local attorney in Washington to have an examination made of these lands by some agent of the government to determine whether they were oil lands (R. 1544). E. C. Ryan, a special agent of the Land Office, was directed by the Commissioner to examine these lands and report whether they should be released from the suspension which had been made in 1900 on the supposition that they were oil lands (R. 1547). On January 22, 1904, Ryan reported to the Commissioner on this land (and on 480 acres several miles away), saying, "I have the honor to report that on January 10th, 11th, 12th, 13th and 14th, 1904, I made a careful examination of the lands in question and found no oil seepages, oil springs, surface or other indications of oil or minerals of any kind that would tend, in my opinion, to warrant said lands being classed as mineral in character, and I respectfully recommend that they be relieved from suspension" (R. 1550).

On February 11, 1904, the Commissioner wrote the local land officers reciting the substance of the Ryan report and directing that these lands be relieved from the oil suspension (R. 1555-6). The selection list was thereupon reinstated on February 26, 1904 (R. 3768, 3835). As part of the lands were within six miles of known mining claims, posting and publication of the selection list was ordered on March 5, 1904 (R. 3836).

The list was published in a daily newspaper of general circulation in the county where the lands are situated from April 14th to June 14th, 1904 (R. 3858-9). No contests or objections were filed (R. 3861). The Commissioner of the General Land Office asked for a change in the description of some of the base lands in this list and a rearranged list was filed on September 6, 1904, containing affidavits of C. W. Eberlein similar to those in the original application (R. 3771, 3837-51). The selected lands are the same in both lists (R. 3775). Following this, patent was duly issued on December 12, 1904 (R. 19-23).

Argument.

A. GENERAL OUTLINE OF GOVERNMENT CASE.

1. Character of evidence offered.

As already stated, no wells have been drilled on the lands in suit and no oil has been discovered on them. When the patent was obtained in 1904, the nearest discovery of oil in commercial quantity was in Section 29 of the township to the west, four miles from the nearest land in suit and in a different geological structure (R. 1729).

This being true, no evidence was produced or could have been produced to show that it was known by anyone in 1904 that valuable deposits of oil actually existed anywhere in the Elk Hills. The evidence on both sides shows a singular unanimity of opinion to the effect that the existence of commercial deposits of oil in any tract can be determined only by means of the drill.

The government was therefore compelled to rely entirely on opinion evidence. All of this evidence falls within the following classes:

First. Evidence of men who made speculative "locations" for oil in the Elk Hills during the excitement following the Kern River discovery in 1899. These "locators" drilled no wells, discovered no oil, and, with hardly an exception, abandoned their "claims" before 1904. They testified that they made their locations because they believed the Elk Hills to be "oil land". They also testified to the existence of an "oil seepage" in the township to the east of the lands in suit as well as other "indications" of oil in these hills.

Second. Evidence of geological experts who, on the basis of recent examinations, gave their conclusion that the Elk Hills were of such structure and in such position, in regard to productive oil territory and surface indications of oil in the region about, that the agents of the railroad company *ought* to have recognized their "oil character" in 1904. As will be shown later by reference to their testimony, they did not claim that the actual existence of oil could have been determined by them except by means of wells.

Third. Hearsay evidence of supposed statements by a deceased railroad geologist and by other railroad employees indicating that they believed in 1903 and 1904 that oil *might* be found in the Elk Hills. This evidence, as will be shown later, is contradicted by the contemporaneous statements, maps and reports given by these same men to their railroad associates and others.

Fourth. Correspondence and acts of railroad agents, particularly of C. W. Eberlein, land agent of the company, claimed to indicate a belief or hope in 1904 that the lands in suit might turn out to be valuable for oil, but not showing knowledge or discovery of oil or actual belief in its existence.

All of this evidence, as well as that given in reply by the defendants, will be hereafter discussed in such detail as is necessary to show the few ultimate facts upon which the decision in this case must rest.

Stripped of all that is but surmise or suspicion of fraud, the government evidence, taken at its face value and without regard to that given in defense, would show

only that these lands were selected at a time when it was believed or, rather, *hoped* by someone that oil might be found somewhere within them. It does not show that oil was actually known to exist in a single section in the Elk Hills. It could not be determined from this testimony that a *valuable* deposit of oil existed anywhere. Whether, if it did exist somewhere, it was within the reach of the drill is not disclosed. Opinion or surmise that oil might exist, at an unknown depth, from four to ten miles from its nearest *known* occurrence is not convincing proof that the conditions in 1904 "were plainly such as to engender the belief that the land contained mineral deposits of such quality and in such quantity as would render their extraction profitable and justify expenditures to that end *(Diamond Coal Co. v. U. S.,* 233 U. S. 236, 239).

The "belief" here referred to must be more than mere surmise or hope or conjecture. It must be a belief practically tantamount in its effect to actual knowledge, that is, a belief based on facts so complete as to exclude rational doubt. Even actual knowledge (or such a fully warranted belief) on the part of the railroad agents would not justify the relief here asked by the government if it went merely to the existence of *some* oil *somewhere* within the area sued for. This knowledge (or belief) must be shown to have also comprehended every element of location, quantity and quality which would have given this oil commercial availability and value under conditions then existing. Without such knowledge there could be no fraud, that is, there could be no consciousness that the government was being deprived of land which it ought to retain.

We shall show that the entire case of the government is based on a theory which leaves out of consideration all questions of extent, position, availability or value of oil within the disputed areas. On the contrary it frankly attempts to obtain a decree on the ground that every acre in suit has that nebulous thing termed an "oil value", that is, a speculative value, because the surroundings are claimed to promise that perchance oil will be found *somewhere* in the Elk Hills.

2. The government relies on proof of mere belief or speculation as to possible mineral character and not on proof of knowledge of actual mineral character.

a. Reasons which caused government to adopt its theory.

The election of the government to try this case on the theory just stated was compelled by the facts. Oil, unlike coal which stays where it was formed, is a fugitive substance, subject to so many unseen underground influences and movements that it has become a truism among oil men that the drill alone can determine its existence and amount (R. 485). At the time this suit was started much had been written about the California oil fields by government geologists, particularly by Mr. Ralph Arnold, a distinguished oil geologist connected with the United States Geological Survey. His conclusion concerning the prediction of oil in undrilled territory was thus stated by him in a bulletin published in 1907: "Anyone at all familiar with the conditions of occurrence of petroleum in the California fields knows that any but the most tentative predictions as to the location of oil are extremely hazardous" (R. 926). In another government bulletin by the same

author published in 1910 (Exhibit 10), in which he discusses the very region now in question, he said (p. 16) that "for furnishing definite information regarding the occurrence of the oil in any particular area there is just one instrument that may be relied upon, and that is the drill."

In addition to this conceded uncertainty concerning the occurrence of oil in untried territory, the government was confronted with the further difficulty that the lands in suit lie in a geological structure which in 1904 had not been tested at any point. It is generally understood among oil men in California that anticlinal structures in sedimentary formations offer the best promise for the accumulation of oil. This is due to the fact that oil, being lighter than water, is usually driven by the latter into those formations which are highest. Whether or not this has actually occurred in any anticline, such as that formed by the elevation of the Elk Hills, for instance, depends on whether there was any oil so situated that it could be drawn into the anticline, whether there is a porous sand or other formation to serve as a reservoir, and on many other facts which must await the test of the drill (R. 675).

Occasionally some of the great initial uncertainties as to a portion of an anticline or dome may be removed by the drilling of wells on another part of the same structure. In the present instance, however, this had not been done in 1904. The nearest existing wells (R. 1729) were on the McKittrick anticline to the west, from four to ten miles from the lands in suit and separated from them by a deep synclinal depression

(R. 2180). The productive area on the McKittrick anticline is very narrow and wells drilled on the side toward the Elk Hills have encountered water instead of oil (R. 2184-5). The development to the southeast of McKittrick in 1904 was along the base of the Temblor Range and still farther removed from the Elk Hills' structure (Exhibit 10, U. S. G. S. Bulletin 406, Plate 1).

It thus appears that the government at the outset of this suit was placed in a position making it manifestly impossible to obtain proof that the lands in suit were actually known to anyone to contain valuable deposits of oil. The only alternatives presented were to dismiss the suit or to attempt to sustain it by the proof of a speculative value of these Elk Hills lands as an oil *prospect*. This latter alternative was chosen regardless of the direct and specific charges in the bill of complaint that the defendants actually *knew* at the time of the patent that all of these lands contained *valuable deposits of oil*.

b. Evidence of unskilled witnesses.

The witnesses called by the government to prove the "oil character" of these lands consisted of two classes. The first were men of little or no practical or theoretical training in the search for oil. Most of these had made speculative locations in the Elk Hills during the oil boom of 1899. A few of these men were drillers, one or two had had some experience as producers of oil, but most of them were teamsters or farmers or followers of occupations not connected with the oil industry. The second group of witnesses were men

either of extensive experience in the oil business or of special skill as geologists.

We have inserted in the margin* a summary of the testimony of the first class of witnesses mentioned, giving literally or in substance their conclusions concerning the character of the region in suit. Nearly all of the witnesses based their conclusions on a supposed "gas blowout" or "oil seepage" on Section 32 of Township 30-24, just to the east of the township in which the lands in suit are situated. As will be shown hereafter (post p. 93), this supposed oil or gas seepage is merely a recent surface organic deposit having no relation to oil.

It is to be noted that these witnesses did not pretend to say that there is a valuable deposit of oil at any place in the lands in suit. In general their conclusions

* "I regarded the Elk Hills at that time as oil territory."—S. P. Drouillard (R. 117). "Thought it was good for oil * * * but deep."—L. G. Sarnow (R. 135). "Had a very high opinion of that land as oil territory."—F. D. Lowe (R. 151-2). "The formation was there to show that it was oil producing territory."—I. M. Anderson (R. 156). "I think it is good as oil territory."—M. S. Wagy (R. 180). Thought the Elk Hills was "a prospect * * * that would warrant taking a chance on."—J. I. Wagy (R. 261). "It was the general belief * * * that the Elk Hills were oil territory."—W. E. Ott (R. 277). "I regarded the Elk Hills * * * as oil lands."—I. N. Chapman (R. 315). Owen (railroad geologist, now dead) regarded the Elk Hills as "oil territory" in 1904—S. P. Wible (R. 321). Owen told me "before 1904" that the Elk Hills were "good oil territory" but "would be very deep".—Charles Brisco (R. 337). In 1904 Owen said "he thought there was oil there but that it was very deep and it wouldn't pay to go after it."—C. F. Haberkern (R. 350). "I believed that the indications in the Elk Hills were good. The prospects were, and that is all you ever 'wild-cat' on—your belief or expectations. * * * This was then an unknown field."—H. A. Blodget (R. 367, 395). I thought the Elk Hills were "favorable for oil property."—H. P. Dover (R. 462). "I regarded that as possible prospective oil territory * * * It was more of a gamble that it would be at those places closer to the croppings."—C. F. Whittier (R. 475, 477). "I thought there was a good probability of the lands in 30-23 * * * proving to be oil lands."—M. T. Hubbard (R. 491). "I was satisfied that there was a fair chance of getting oil there. * * * At that time it had no value as actual oil territory. * * * We were advised by experts that in all probability it was an oil country."—N. C. Farnum (R. 497, 510, 516). "I certainly regarded the Elk Hills at that time as good oil territory."—C. W. Lamont (R. 581).

apply to the entire range of the Elk Hills, including more than fifty sections. They defined this broad region as "oil territory" or "oil lands". These expressions are obviously vague and inexact. They may mean lands actually valuable because they contain a great deal of oil or merely lands which contain *some* oil. A careful analysis of all this testimony shows, moreover, that actual oil in the ground—whether in large or in small quantities—did not especially enter into the formation of their conclusions. To most of them the expression "oil land" meant only that the entire region had a speculative value, not for oil, but for *prospecting* in the *search* for oil. Nearly every one of these witnesses had made "locations" in these hills during the oil excitement of 1899 and 1900 and had held them for a time in the hope that some stranger would take them off their hands. The fact that they each and all abandoned these locations soon after they were made indicated to the Circuit Court of Appeals "that if there was faith at all in 1903-4, it was faith without works" (249 Fed. 785, 804).

c. Evidence of government expert witnesses.

The essentially fictitious character of the government's contention as to the "oil value" of those lands is made even more apparent by the testimony of its witnesses who claimed special skill either as practical oil men or as geologists. They were few in number and their evidence in this regard may be briefly summarized.

W. E. Youle, who had had nearly fifty years experience in the production of oil and who had been one of

those who located claims in the Elk Hills in 1899, but who never actually attempted to produce oil on any of these claims although actively engaged in drilling only a few miles away, said that "intuitively" these hills "looked good" to him (R. 553). Further, he said, "a geologist will say of all of those hills toward the Elk Hills and that whole country, 'there is good oil territory' but as to the depth, I don't see how they can tell. They endeavor to tell but the drill is the proof of it" (R. 564). * * * "Water streaks go through any formation. That is why the oil business is a gamble. It is because there is no man, geologist, expert or anything else, who can tell you where these faults are. There may be a world of oil there; there may be a tight streak of sand filled up with clay that won't let the oil through, and you might drill right into that spot. You cannot look down and see; you may be in the wrong place" (R. 566). * * * "The oil business is a gamble. It is not like farming. You just bet that you don't go down that deep and that territory was good to have bet on. If you win once in four or five times, you make a lot of money. That is the reason I would have advised people to spend $50,000 or $100,000 there. I wouldn't advise widows and orphans and dishwashers and cooks who could not risk money; but if you wanted a chance to make a million dollars, I would pick the Elk Hills quicker than any piece of land in there, because the formation justifies what I say" (R. 577). * * * "The fact that oil is found in one section is not evidence that it may be found in every section in the township. There may be kidneys. Oil is not contained like a river underground, but in

kidneys. While you are in the oil sand all the time, we know by experience that there are dry holes drilled in oil sand" (R. 578).

This witness summed up his conclusions as to the *value* of these hills thus, "From my observation and examination in those hills, I would not have advised that they be sold for their agricultural value * * *. I most assuredly would have advised my employer to acquire the lands at a price in excess of their agricultural value because of their oil possibilities" (R. 576). He did not attempt to say that oil actually existed in any particular place. This, he frankly conceded, could be determined only by the drill. Nor would he attempt to predict that the possible oil plane was within the reach of the drill. And, finally, the only *value* he was able to place on these lands was a conjectural value "in excess of their agricultural value" because of their oil "*possibilities*" and not their oil realities. His strong impression as to the uncertainty of the prediction of the actual existence of oil is shown by his statement at another place that "there is nothing there until you drill a well" (R. 567).

The only other practical oil operator of long experience called by the government as a witness was Frank Barrett. He testified that he made an expert examination of a portion of the Elk Hills in 1899. This was during the general oil excitement when locations were being made nearly everywhere in the vicinity of the oil fields (R. 517). He claimed that he then made a favorable report to the man who employed him to make this examination, although the evidence discloses that the

employer did not attempt to drill in the Elk Hills but directed his attention elsewhere (R. 479, Barrett; 505, Farnum). But Barrett did not pretend to say that he considered any part of the Elk Hills as *actual* oil land. "I could not have said, 'This is known oil territory' ", he testified, "I could only have said, in my opinion it would prove to be such. * * * The oil doesn't always appear where they say it will. The true expert is the drill. You couldn't say that a territory is known oil ground till you put a drill in it" (R. 485). Again he said, "I have observed promising indications very frequently that didn't pan out. The oil business is a good deal like elections" (R. 485). In reference to location of oil by means of geological science, he said, "I have known numerous instances where scientific men have pointed out where wells should be sunk and those wells have been sunk and nothing produced. That is not at all uncommon" (R. 486).

Three geological experts were put on the stand by the government. The first of these was F. O. Martin, a "mineral inspector" of the General Land Office, who had had no practical experience in the oil business. He first saw the region in question in 1910 but attempted to state the conclusions he would have reached had he seen them in 1904 (R. 610, 614). He testified that in the light of the "geological structure of the region" and the existing development in 1904, "I would have advised any company employing me to hold these lands in the Elk Hills for their mineral value. * * * I certainly would have advised my employer, who was not the owner of the land in 1904, to acquire it at a

price in excess of their value for agricultural purposes" (R. 614). * * * "I would not say that I could always, or even fifty per cent of the time, predict where oil would be found in paying quantities. * * * I would not predict that oil could be found in paying quantities unless under the most favorable circumstances" (R. 620).

All that this witness said was that he now believes that in 1904 he would have thought the Elk Hills as a whole were worth acquiring as a *prospect*. On being pressed on cross-examination to say what conclusion he would have reached as to their commercial value he said, "I would not be able to state that it would be found in paying quantities. I would be able to state that it would be found there, that oil would exist below the Elk Hills. * * * I would advise him to bore. That is the only way he would be able to find out" (R. 665).

It is to be noted that this witness goes to the extent of saying that he would have been positive that there was *some* oil in the Elk Hills. It appears elsewhere that he based this conclusion on the supposed oil seepage in the township to the east of the lands in suit (R. 613). As already stated, we shall (p. 93, post) show that this was not an oil seepage.

The most distinguished expert witness produced by the government was Dr. J. C. Branner, professor of geology at Stanford University. He did not visit the Elk Hills until 1912 at which time he spent part of one day there (R. 1014-15). In 1900 he made an examination of some supposed oil land several miles to the west

of the Elk Hills (R. 1002), and in 1910 he made an examination of the Buena Vista Hills, just south of the Elk Hills (R. 1014, 1989).

Dr. Branner's testimony is important because of his manifest attempt to state the situation fairly from a scientific standpoint. He frankly admitted that his opinion was influenced by developments since 1904, which would include the three wells in the Elk Hills which have found some oil (R. 1003). "My opinion was that the Elk Hills was the most promising area for petroleum in that region," he said. "I formed the opinion that it was oil bearing. That opinion was confirmed to a considerable extent by the developments that had taken place there recently, but everything seemed to fit together; that is, the geological structure, the development of the wells, the occurrences of the oil seepages,* and everything, pointed to the Elk Hills as a promising field for the finding of petroleum."

This was the opinion he formed in 1912. But he then attempted to give the conclusion he would have drawn in 1900, saying, "Had I gone into the Elk Hills in 1900, I would have arrived at the same opinion as to the character of these lands that I did on the later trip; decidedly so. The lands *were favorable for the accumulation of oil* and I should say that they *were oil in character*" (R. 1004).

At no point in the direct examination of this witness was his attention directed to the real question in issue

* As in the case of other government witnesses Dr. Branner took the organic deposit in Section 32 of Township 30-24 to be an oil seepage and considered it important as an indication of oil. He made no test to determine its real character (R. 1015).

—the value of these lands in suit for actual oil production. All he was asked to say and all he did say on direct examination concerning value was that he would not have advised the sale of these lands in 1904 for their "agricultural value" alone (R. 1005), which is the same test of mineral value propounded to all the other government witnesses by counsel for the plaintiff, and is in fact the test now relied upon by the government on this appeal.

But on cross-examination he was asked what conclusion he could reach as to the *real* character of these lands and his replies should be conclusive against the contention that these lands were known to be valuable for oil in 1904. "In passing upon the character of the Elk Hills", he said, "I did not determine in any way the quantity of oil and made no attempt to do so. I could not have done so from the examination I made. *That could only be determined by putting down wells.* One well might determine the matter and it might not. Development is required to determine whether or not that is a valuable oil deposit. A geologist does not determine the economic value of the land for oil. All he undertakes to do is to say whether or not the land has prospective value. I mean by prospective value, that the company proposing to develop that region should take it up—buy it if necessary—and put down a well on it, should prospect it" (R. 1007).

In explanation of the expression he had used, "suitable for the accumulation of oil", he said, "But that would not necessarily mean that they had accumulated oil. That could be determined only by exploration"

(R. 1016). Further he said, "I do not think there is any way to determine from an examination of the surface how large an area yields oil at any point. It sometimes happens that the sand beds become hardened so that they cease to be media through which oil can pass, and it occasionally or even frequently happens that the sand beds pinch out between hard layers of strata" (R. 1018).

On his attention being called to the important fact that the lands might be without value for oil because of the great depth of the possible oil horizon, he said, "I have not made sufficient examination with that question in mind, to be able to tell whether you could ascertain the depth without a well in the Elk Hills. I made no attempt to do so. The purpose of my examination was to ascertain generally whether that could be considered *possible* oil territory and *I made no attempt to determine whether it was paying oil territory*" (R. 1020). (Italics ours.) As he was employed by counsel for the government to make this examination, the answer just quoted clearly confirms what we have said as to the government theory of the case.

Finally, on redirect examination, Dr. Branner thus summed up his conclusions:

> "I should say, decidedly, that the conditions in the Elk Hills are such as to warrant the ordinarily prudent man in the investment and expenditure of money with a reasonable expectation of developing a paying oil property. But I should like to explain this, that if we went back to the conditions as they existed there before any wells were put down in either of those hills, and if I had been the consulting geologist for some company or party who anti-

cipated putting down wells there, I should have put it to him in this way: 'In my opinion the geology, altogether, of the mountains to the west, and the floor of the valley, and everything taken together, strongly suggest that these hills are the best place in which to put down oil wells. There ought to be, so far as we can see, enormous quantities of petroleum under those two groups of hills. Now there is nothing absolutely certain about putting down an oil well in a new region. There is a certain amount of risk about it and you can't get away from the risk. And I should have said to those men: 'If you have money to risk and you can afford to lose it, put it in there; if you can't afford to take any risks, you had better let somebody else do it.'

"I mean that anyone who had money to risk and who might afford to lose it might get larger returns for his money than he would from an ordinary investment. Perhaps I ought to say that one of the reasons for that risk lies in the fact that there is no way, short of putting down a well there, to determine the thickness of the strata that overlie the oil-bearing bed. As everyone knows, who knows anything about petroleum wells, you may have an enormous volume of petroleum so deep that you can't get it, and I should have said that there may be the possibility there. * * * I do not mean to be understood as saying that I actually determined that that territory did contain an immense quantity of oil. I meant to say that if I had gone over that ground in 1900 with a view to saying whether or not those were probably petroleum lands, I should have, under those circumstances, pronounced them oil lands and recommended their exploitation to anyone who was able to take the risk. I realized that the risk might result in a total loss of the investment" (R. 1025-8).

The closely guarded statements of the witness concerning the "oil character" of the lands in suit do not indicate a belief on his part that the "known conditions"

in 1904 "plainly" pointed to the existence of oil deposits in any section in suit, to use the language of this Court in a recent case, "of such quality and in such quantity as would render their extraction profitable and justify expenditures to that end" *(Diamond Coal Co. v. U. S.,* 233 U. S. 236, 239). Borrowing further from the language of the same case (p. 249), there is nothing in his testimony "pointing persuasively" to the "quality, extent or value" of the supposed oil. He does not even say that it exists at all in any of these lands. The most he says is that the Elk Hills *as a whole,* are "suitable for the accumulation of oil", but he refused to say that oil had actually accumulated anywhere.

His conclusions concerning the futility of predicting economic deposits of oil are in accord with the statement of the geologist Ralph Arnold already quoted (ante p. 14). This is natural as Arnold was a student under Dr. Branner (R. 1021).

Further light on the mental attitude of Dr. Branner toward attempts to predict the occurrence of oil deposits from surface indications is given by a report made by him in 1910 on the Buena Vista Hills (just south of the Elk Hills) at a time when oil had just been discovered on the margin of these hills (R. 1014). In this report he said, "If oil had not been found, however, in the region south and west of the Buena Vista Hills, a geologist would have been very bold indeed who would have ventured to predict the existence of petroleum in the Buena Vista Hills themselves" (R. 1992). If this was

his conclusion in 1910 concerning a range of hills far more favorably situated than are the Elk Hills and at a time when development and knowledge was far beyond that of 1904, it is evident that he would have regarded such a prediction concerning the Elk Hills in 1904 as more than merely "bold".

The remaining expert witness called by the government was A. C. Veatch, who had been connected with the United States Geological Survey for a number of years and engaged in work chiefly in the coal regions. He was the principal expert in behalf of the government in the trial of the case of *Diamond Coal Co. v. U. S.*, 233 U. S. 236 (R. 792-3). His testimony indicates a studied effort to bring the issues of the present case within those of the case referred to. Although he had done a great deal of geological work in the oil regions of other parts of the United States and also in South America, he had spent not more than two weeks in the examination of the California oil fields, only four days of this time being devoted to the Elk Hills (R. 774-8, 782). With the exception of a brief visit to the Elk Hills in 1910 (R. 778), he knew nothing about them or the conditions in the vicinity until 1912. He had had no practical experience in the production of oil anywhere (R. 737, 741, 748).

Unlike Dr. Branner, Mr. Veatch in his testimony assumed the attitude of a partisan special pleader, as, unfortunately, so many "experts" are prone to do. Probably this was largely due to the nature of his posi-

tion. He was employed by the Attorney General to serve as a trial assistant in scientific matters (R. 767). He assisted in collecting evidence, interviewed prospective witnesses and sat in court as the assistant and adviser of counsel for the government during the entire presentation of the case in chief (R. 783-7). It may well be assumed, therefore, that the theories of "oil value" suggested in the examination of other witnesses and advanced by him in his own testimony are those upon which the case of the government actually rests. Reference will later be made to other portions of his testimony (post pp. 76-83), but at this place we shall discuss only that which bears upon the mineral value of the lands in controversy.

He discussed at length the geology of the region and the seepages and other indications of oil in various places. As did other witnesses he assumed that the organic deposit in the township east of the lands in suit was an oil seepage, although he admitted that tests he had made with chloroform showed no oil (R. 712). Taking all these things into account, he concluded, attempting to speak as of the year 1904, that the Elk Hills were "oil lands" (R. 701). In the obvious effort to bring this case within the ruling in the *Diamond Coal* case, he likened the seepages and asphalt deposits many miles to the west and south of the Elk Hills to coal outcrops dipping in the direction of these hills. In this way he assumed that the exposed sandy strata in which these seepages appear along the base of the Temblor Range might be carried by geological deduction from four to

ten miles out beneath the Elk Hills, thus furnishing a place "suitable for containing" the oil (R. 698).*

He stated that the evidence was so "conclusive" (R. 712) that a geologist in 1904 must have regarded the Elk Hills as an "oil proposition", and that for this reason he would then "have advised the acquisition of these lands at a price in excess of their agricultural value" (R. 718). This is as far as he went on direct examination. No attempt was made by him to demonstrate that oil was known or could be known to actually exist in a single tract now in suit.

On cross-examination he was required to say in what respect the evidence was "conclusive", and replied, "It is conclusive in this: That I would advise a person to acquire that for oil land. I would advise him to drill it as oil land. I would not guarantee that he would get a commercial well" (R. 820, 823).

On being asked what he meant when he said this land had a *value* as "oil land", he replied, "The value of oil land—oil land has value which has no well and which has not been proven in the sense of proving it by a well. But it is a common commercial transaction to sell land

* In making this assumption concerning the lateral extent of the sand beds "suitable" for oil reservoirs, he failed to note, or disregarded, the convincing geological evidence, pointed out by other geologists (R. 2751-7, J. A. Taff; 2392-6, 2452, 2463, F. M. Anderson), that the ancient shore line, which existed when the supposed oil formations were laid down, ran along the base of the Temblor Range, a number of miles south and west of the lands in suit (R. 2396, 2753). At that time the Temblor Range was a narrow line of islands (R. 2435, 2449, 2753), and, by reason of a familiar law of physics, the coarser sands and sediments carried into the then existing inland sea by the necessarily small surface streams and by wave erosion would be deposited close to the shore, while the sediments carried out to the region of the present Elk Hills, which are a very recent uplift (R. 2445-8, F. M. Anderson; 2754-5, J. A. Taff), would consist of fine silt and mud not at all suitable for the accumulation of considerable amounts of oil (R. 2423-7, 2454-7, F. M. Anderson).

and pay an oil land price for it where there is not a single well on the land and which is not proven in that way'' (R. 825).

His exact conception of *value* in this connection is shown in the following answers given by him:

> ''Q. Did you mean when you used the word 'value'——
>
> A. A commercial value as an oil proposition.
>
> Q. Oil ould be produced in paying quantities?
>
> A. No.
>
> Q. Then you used the word 'value' having some other definition in mind, did you?
>
> A. I used it as having a value as oil land—— having a commercial value as an oil property.
>
> Q. Did you mean when you used the word 'value' * * * that it contained oil enough to add to its richness?
>
> A. I believed that it did.
>
> Q. Did you know that it did?
>
> A. No. I did not know that it did. That was my opinion as a geologist.
>
> Q. Could you determine in any way that it contained sufficient oil to add to its richness? That is, that the oil could be extracted at a profit of even one mill on a thousand tons?
>
> A. That cannot be determined.
>
> Q. Then when you all the way through your testimony speak of this being proven oil land or valuable oil land, you nowhere mean to be understood as saying that there is sufficient oil there that it can be extracted with profit?
>
> A. No; I mean that a man would be justified in buying that, perhaps, and paying an enhanced value, because of its oil value, and spending money in developing it'' (R. 825-7).

It is apparent from these answers that the only value he had in mind was that of a mere speculative *prospect.* He was compelled to admit that the actual existence

of oil *could not be* determined from a surface examination. Further answers given by him show that in the use of the word "value" he did not have in mind the conditions when this patent was obtained but those of some indefinite time in the remote future. This appears from the following:

> "Q. In your opinion then—I am now asking for your *belief*—there is a large quantity of oil under the Elk Hills?
>
> A. I believe so.
>
> Q. And at what depth?
>
> A. I should say it may be under five thousand feet or it may be over.
>
> Q. In 1904 could that have been mined at a profit?
>
> A. No.
>
> Q. Would it have been mined in 1904?
>
> A. No. But there are a great many valuable mineral deposits that cannot be mined at a given moment that are perfectly good mineral lands. * * * I believe the Elk Hills will ultimately be developed into good oil lands" (R. 885-6).
>
> Q. You say 'ultimately developed'. Will you hazard a prediction when that would be?
>
> A. No.
>
> Q. Will it be within the next ten years?
>
> A. It is possible.
>
> Q. And it is possible that it may not be for twenty years?
>
> A. It is possible.
>
> Q. Or a hundred years?
>
> A. I think that is very remote" (R. 885-6).

The reason why he conceded that this land could not be developed in 1904 or even now was because the conjectural "oil horizon" located by him beneath the Elk Hills was then far beyond the reach of the drill. He stated that his assumed oil "might be even deeper"

than "four or five or even six thousand feet" (R. 967). Owing to the peculiar drilling conditions in California a four thousand foot well was out of the question in 1904 with the drilling appliances then known (R. 144). The usual maximum depth then attained was from 1200 to 1500 feet (R. 171-2). B. K. Lee, a practical driller called by the government, said that the deepest well at McKittrick in 1904 was 2250 feet deep and that this was considered an "exceptional well" (R. 231-2).

3. Trial Court in this case decided on the basis of conjectural belief.

It is significant that the District Court, in its decree in this case in favor of the government, expressed doubt as to the proof of the mineral value of the lands in suit. This appears from the following extract from the opinion of Judge Bean:

> "The only question upon which I have had any doubt or difficulty is whether the evidence, notwithstanding the matters referred to, is sufficient to show that the patents should be set aside because the lands were in fact known oil lands at the time of the proceedings resulting in their issuance. There had been no actual discovery of oil within the boundaries of the land at that time but this was not necessary to determine their oil character. Oil like coal occurs in stratified forms of deposit, or rather, migrates into and permeates stratified deposits and follows them persistently and continuously, unless interrupted by some intrusion, to the end. Lands therefore may and often do become valuable for oil through adjacent disclosures and other surrounding conditions, although there has been no actual discovery within their boundaries" (R. 77).

This is a direct adoption of the theory expressed by the government expert A. C. Veatch (R. 698). But the learned district judge went even *further* and found as a *fact* that oil revealed at one place in the assumed "porous bed" would follow it "persistently and continuously to the end". No witness went so far and the court's assumption is at variance with all the evidence of practical and skilled men who have to deal with oil problems. The search for oil is not so simple. If it were the experienced oil expert Ralph Arnold would not have concluded that the prediction of oil in untried areas was "extremely hazardous" (R. 926).

No oil man feels justified in drilling a well four to ten miles away from an oil discovery, nor does he in fact find oil sands to be persistent (R. 1826-7, 1836-7, 1840, 1876-7, 1904-5, 1922-3). The best way to determine what experienced oil men knew and thought in this region is to consider what they in fact did. The evidence is undisputed that for years before and after 1904 they clung to a narrow belt along the base of the Temblor Range, from four to fifteen miles away from the Elk Hills. The intervening lands, which must have been of *known* oil value, according to the test of the District Court, were allowed to remain open and unclaimed for many years after 1904.

Nor does this test take into account any of the many uncertainties an oil man knows about. There is nothing said about an adequate source for the oil which is to be so widely diffused; nor about the probability of water preventing its migration; nor about the breaking off, or folding, or pinching out or changing in porosity of

the strata through which it is assumed to migrate; nor about the possible or even probable absence of sand beds in the Elk Hills in which the oil could accumulate. These are a few of the many uncertainties which caused so many witnesses on both sides to refer to the oil business as a "gamble".

The only limit placed by the District Court on the "persistent" and indefinite spread of this assumed saturated oil area was a possible "intrusion". There is no evidence showing that there are not hundreds of such "intrusions" between the Elk Hills and the McKittrick anticline, the nearest place where oil was known in 1904. Apparently it was assumed that none existed because none were known. In fact one very serious "intrusion" is known and its existence is not disputed. A deep synclinal depression lies *between* McKittrick and the Elk Hills and early wells drilled into this area showed that it is filled with water (R. 2180-5).

The District Court, however, assumed that the oil saturation continued from the McKittrick anticline across this deep syncline and into and across every acre of the lands in suit, a total distance of more than ten miles. No reason appears why the same deduction should not be carried entirely across the San Joaquin Valley, thereby calling in question the title of every farmer in that region. It might still be assumed there were no "intrusions" because none appear on the surface.

Only by making such an artificial assumption can the case of the government be sustained. Well might the trial judge express doubt as to the mineral value of the lands in suit. The existence of this doubt demanded

the dismissal of the bill, since it was the duty of the government to prove its case by "that class of evidence which commands respect and that amount of it which produces conviction" *(Maxwell Land Grant Case,* 121 U. S. 325, 379-81). Instead, this doubt was resolved in favor of the government, but this was done only by the acceptance of the government theory of mineral value based on belief or conjecture rather than on proven fact.

4. Practical consequences which the adoption of the government theory would produce.

Under an earlier head we pointed out the full substance and effect of the testimony of every government witness, save two, who gave testimony as to the mineral character or value of the lands in suit. One of the two omitted witnesses was J. W. Kaerth, a surveyor, who testified that there were numerous "asphaltum reefs" in the region in suit, but who declined later to attempt to point out any of them (R. 417, 423-4, 459-60). No other witness saw these asphalt deposits and the maps prepared by the government experts Veatch and Martin (Exhibits I and O) do not show any of them although they purport to show all such indications in that entire region. Mr. Veatch admitted that he found no such reefs (R. 801). The other omitted witness is J. R. Scupham, to whom reference will be made later (post p. 108), who claimed that as early as 1887 he informed certain officers of the railroad company that the Elk Hills "overlay an oil deposit".

[illegible] reduced to its ultimate substance, amounts only to the expression of

an *opinion* that the Elk Hills *as a whole* had a speculative value in 1904 because of the *possibility* that oil deposits lay somewhere beneath them, the position, depth, character, quantity and even existence of this oil being entirely conjectural. We shall later show that a large number of experienced and skilled practical oil operators who were in that region in 1904 and earlier entertained a directly contrary opinion (post pp. 83-90). But, disregarding this latter testimony for the moment, we are concerned only with the practical consequences which would follow from the adoption of the government theory as a ground for recovery in this case.

It appears to be the contention of the government that if it was thought in 1904 by the agents of the railroad company, or by others, that the lands in suit were "oil lands", a case is made. But it is not asserted—and indeed the very contrary is urged—that the use of this vague expression "oil lands" means that these lands were then lands valuable for the extraction of oil in a commercial way, or even lands actually containing oil in any quantity. In fact, it was expressly contended by counsel for the government during the trial that it was "wholly immaterial" whether the land contained oil in paying quantity or not as the only question was whether it was considered to be "mineral land" (R. 1920).

It is apparent that if hope or suspicion that oil *might* be found somewhere in the Elk Hills can give to the particular lands in suit the requisite mineral character to warrant cancelation, the railroad company

may lose by judicial decree lands which subsequent drilling may prove to fall unquestionably within its grant. Such a result is hardly in accord with equity.

This fallacy in the present position of the government may be shown in another way. This Court has held that the grant of lands to the defendant railroad company by the Act of July 27, 1866 became a binding *contract* on the construction and operation of the road (*Burke v. S. P. R. R. Co.*, 234 U. S. 669, 679-80). "Then", says that case, "it became entitled to performance by the government. In other words, it earned the right to the lands described". The lands thus described to which the *right* was complete were all non-mineral lands (not otherwise disposed of) in the odd numbered sections lying within the limits of the grant. The lands in suit came within these limits. If they are *in fact* non-mineral they belong to the railroad company as of right.

From this it necessarily follows that only those lands may be lawfully taken from the railroad company which were in fact mineral lands at the time of patent. The expression "mineral lands" as here used is no longer open to question. It includes only "such lands as were at the time of the grant [patent] known to be so valuable for their minerals as to justify expenditure for their extraction" (*Davis v. Weibbold*, 139 U. S. 507, 524; *Deffeback v. Hawke*, 115 U. S. 392; *Diamond Coal Co. v. U. S.*, 233 U. S. 236, 239). As stated in these as well as other decisions of this Court the expression "mineral lands" necessarily implies "valuable mineral lands" in order not to exclude from agricultural grants

those lands containing minerals in such condition or quantity as to be economically unavailable at the time the proofs for patent are presented. And it is further necessary that the existence of these "valuable mineral lands" must be *known* at that time in order that apparently vested titles might not fail by reason of subsequent discoveries. This being the established law, the mere possibility in 1904, which is all the government has shown, that minerals might be discovered in the lands in question, cannot be substituted for the required showing that these lands were then "known to be valuable for their minerals".

If these lands were not thus known in 1904 to be "valuable for their minerals", the issuance of the patent now in question was entirely proper. It is fair to assume that in the use of the two terms "mineral lands" and lands "not mineral" in the various acts of Congress for the disposal of the public domain, *all* public lands were intended to be described. "Mineral lands" were those which could be acquired under the mining laws. Lands "not mineral" were disposed of by the homestead, railroad, school and other "non-mineral" grants.

Our contention that the patenting of these lands was entirely proper notwithstanding suggestions that they *might* contain oil is borne out by the practice of the Land Department of the government as applied to this very grant. In 1895, Secretary Smith directed the issuance of a patent to the Southern Pacific Railroad Company of lands near those now in suit notwithstanding a general protest that they were all "mineral lands",

saying that he could find no authority "after exhausting the means at my disposal to ascertain the nature of the land included in the grant, for suspending the issue of patents for the reason that perchance in some of the lands patented mineral may be discovered" (*Benjamin v. S. P. R. R. Co.*, 21 L. D. 390). All that the testimony indicates in the present case is that in 1904 "perchance" oil might be discovered somewhere within the area in suit.

But, if the present contention of the government is correct, there must be a third class not capable of disposal under any law (See comment of Circuit Court of Appeals on this, 249 Fed. at 797). It is conceded that a mineral patent would not issue for a single acre in the Elk Hills on the showing of mineral made by the government in this case. This is so because the evidence is not sufficient to prove a *discovery* of mineral (*Chrisman v. Miller*, 197 U. S. 313). Though this proof would not warrant a mineral patent, yet to justify cancelation of our patent it must be found by this Court to show *more* than a mineral applicant is required to prove. All he need prove is that he has discovered sufficient mineral to reasonably justify a *hope* of developing a paying mine. But to justify the extraordinary remedy of cancelation of a non-mineral patent the proof must be convincing that there is more than a mere hope of valuable mineral. The existence of the mineral must be shown as a known fact, in such condition and quantity as to make it then and there commercially valuable. That is, far more proof is required to take land out of the category established by its non-

mineral patent than is required to establish a miner's "discovery" *(Chrisman v. Miller, supra).*

This point is worthy of further emphasis. If there was not a sufficient "discovery" of oil on these lands to sustain a mining location, there obviously was not a discovery of oil sufficient to establish them as actually "valuable" oil lands. There is nothing technical or peculiar in the use of the word "discovery" in the mining laws. This word has the same meaning there that it has elsewhere. It means the ascertainment of the existence of the mineral, its disclosure. It is charged, however, that although there was no discovery of oil in the Elk Hills the defendant nevertheless actually *knew* it was there and in valuable quantities. We confess that we cannot understand how the existence of a thing may be *known* and its measure taken when it has not yet been discovered.

Another fact fatal to the government theory of this case presents itself. Unless these lands were known in 1904 to be actually valuable for the oil that was in them (and not merely speculatively valuable because of the uncertain chance of their containing oil), the government suffered no legal damage by their loss and the railroad company, as we have seen, gained nothing not due it under its contract. Without legal damage to the government there can be no relief on the ground of fraud. This is the rule which this Court has applied in a similar suit by a private individual *(Southern Development Co. v. Silva,* 125 U. S. 247). The same rule has been held to apply in suits by the government it-

self (*U. S. v. San Jacinto Tin Co.*, 125 U. S. 273, 285; *U. S. v. Stinson*, 197 U. S. 200, 205).

In conclusion of this branch of the argument we call attention to the breadth of relief possible if the government theory of mineral value is adopted. We have shown that the proof offered to prove the "oil character" of the lands in suit was not directed to show that oil exists in any given acre or section. It applies generally to the entire area of the Elk Hills, consisting of more than fifty square miles. If such evidence may justify cancelation as to one acre it must likewise serve to prove that the entire range of hills is valuable for oil, notwithstanding the undisputed fact that in recent years many deep wells have failed to find oil in various parts of the hills (R. 1794-5, Kinsey; 1953-5, Lang; Exhibit 16. See Map No. 6 in Appendix to this brief). The failure of these numerous wells necessarily weakens the force of the broad assertions of the government experts and illustrates the danger of attempting to rely on such evidence.

B. LEGAL INSUFFICIENCY OF GOVERNMENT CASE.

1. But one broad issue in this suit.

From what we have already shown of the nature of the case made by the government it is apparent that the fundamental issue in this case is whether lands can be found to have been *known* mineral lands on evidence of opinion and conjecture which leaves uncertain the position, extent, economic value and even the actual existence of the asserted mineral. To put it another way, the issue is whether *belief* can take the place of *fact.*

The evidence which we shall hereafter discuss which shows that the real oil men in the vicinity and the agents of the railroad company did not know and did not even *believe* that these lands were valuable for oil, or that claimed to show the contrary impression, is really subordinate to this main issue. If the lands in suit were not known to be mineral lands at the time the proofs for patent were made, that is, were not then known to contain deposits of oil "of such quality and in such quantity as to render their extraction profitable" at that time, the inquiry is at an end, regardless of what may have been the belief or hope or purpose of the railroad company. Of course it is also true that if the railroad company did not know or believe that these were mineral lands, as defined by this Court, there was no fraud and can be no recovery in this case regardless of the actual character of the lands.

The case made by the government in its appeal to this Court leaves out of consideration both the question whether the lands in suit were actually valuable for the

production of oil in 1904 and whether this was then *known* to the railroad company. In its formal assignment of errors on appeal to this court (R. 3941) only three exceptions are taken to the ruling of the Circuit Court of Appeals and these exceptions are general and not in accord with Rules 35 and 40 of this Court. The first is that the court below did not find that the lands in suit were "mineral lands excluded from the operation of the grant". This does not disclose what is meant by "mineral lands", or when that character should have attached to them or when it became known. The second error assigned is that it had not been found that the railroad company had "falsely represented" that these lands were "non-mineral". This assignment has all the uncertainties of the first exception and in addition leaves out of account all question of good faith on the part of the patentee. If the lands did in fact contain valuable oil deposits in 1904 the representation to the contrary would be "false" even though no one then knew or even suspected that the oil was there. The third and last exception is "error in reversing the decree of the District Court". It is apparent that all that is in any degree specific in these assignments might be conceded and still the decree should be in favor of the railroad company.

2. The government relies on a showing of mere belief.

The government case is founded entirely on the use of the word "belief" by this Court in the case of *Diamond Coal Co. v. U. S.*, 233 U. S. 236, 239-40, without recognition, apparently, of the fact that the context indicates that what was there meant by "belief" was

a *conviction* based on evidence so convincing as to exclude practical doubt. It is occasionally possible, as it was in that case, to reason from the known to the unknown so definitely as to produce practical certainty. In that case the commercial extent and value of the coal bed was proven at many points close to the land in suit. At one point this coal bed approached to within a few feet of the area in suit and it was nowhere more than a mile and a half distant. It dipped beneath the area in suit and croppings on the further side gave evidence of its persistence beneath the entire area. This Court said that this evidence "pointed with convincing force to a workable bed of merchantable coal extending under the valley and penetrating these lands" (p. 248). From this language it is apparent just what sort of belief was meant. It is that resulting from evidence so full and definite that it points with *convincing force* to a conclusion which includes not only the fact of the *existence* of the mineral but its extent and value as well. The recent case of *United States v. Beaman,* 242 Fed. 876, decided by the Eighth Circuit Court of Appeals, in which the *Diamond Coal* case was applied, illustrates the point we are making. This was also a coal case, but the proof of the coal was far less convincing and was held insufficient. The court ruled that the evidence must be so complete "as to make the fact plain" that the land "contained mineral deposits of such quality and value and in such quantity as to make their extraction profitable".

In the present case the mineral in question is oil, which is notoriously uncertain in its occurrence, extent

and value as compared with coal (R. 1024, Branner; 2771 Taff). Instead of there being a demonstrated commercial supply of this oil within a few feet of the lands in suit, or even a mile and a half away at the most, the nearest known oil was in a separate anticline four miles from the nearest lands and ten miles from the most remote (R. 1729). In Section 32 of the township east of the lands in suit was a doubtful seepage. The lands themselves were untested and the depth and character of the formations were unknown.

Under such circumstances a belief entertained by anyone in 1904 that these were valuable oil lands or, in the language of the government experts, merely "oil lands" could not have been a conviction that merchantable oil existed. Yet the government now insists that such a belief has been made *proof* of the actual mineral character of these lands by this Court.

In our view, this Court has fully guarded against such unwarranted use of the word "belief" in the concluding paragraph of its opinion in the *Diamond Coal* case, which reads:

> "It will be perceived that we are not here concerned with a mere outcropping of coal with nothing pointing persuasively to its quality, extent or value; neither are we considering other minerals whose mode of deposition and situation in the earth are so irregular or otherwise unlike coal as to require that they be dealt with along other lines" (p. 249).

The fact that mere "indications" of the existence of oil are not proof of its existence or of its quantity or location has received judicial recognition on many occa-

sions. In truth, the fact that oil is "irregular and otherwise unlike coal" may be said to have been generally conceded by every court having occasion to pass upon the matter, except only the trial court in the instant case (R. 77). The Circuit Court of Appeals, however, in its decision in this case, pointed out in detail the many differences between coal and oil (249 Fed. 785, 798-801).

In *Brewster v. Lanyon Zinc Co.*, 140 Fed. 801, 806, the Circuit Court of Appeals for the Eighth Circuit, in speaking of an oil field in Kansas, said:

> "The field was practically undeveloped and its extent was unknown. Experience in other oil and gas fields had demonstrated that wells drilled in the vicinity of producing wells were not infrequently unproductive. The only method of certainly determining whether or not particular lands contained oil or gas in paying quantity was by drilling thereon to considerable depth."

In the case of *Nevada Sierra Oil Co. v. Home Oil Co.*, 98 Fed. 673, 675, Circuit Judge Ross, whose experience is extensive in cases affecting oil lands, was called upon to determine whether a discovery of oil had been made in an undeveloped tract closely adjoining another tract in the Coalinga oil district in California, on which latter tract were several producing oil wells, both tracts being on the same anticline. In rejecting the claim of discovery he said:

> "There is evidence on the part of the complainant going to show that Wilson discovered sandstone and shale thereon as well as on adjoining lands, and that there were seepages of oil on some of the adjoining lands, as also wells on one of the adjoining tracts, which were producing more or less oil.

> But these were nothing more than indications of existing oil under the surface of the ground in question, which might or might not prove to be true. Mere indications, however strong, are not in my opinion, sufficient to answer the requirements of the statute, which requires, as one of the essential conditions to the making of a valid location of unappropriated public land of the United States under the mining laws, a discovery of mineral within the limits of the claim. * * * Indications of the existence of a thing is not the thing itself. * * * Mere indications of mineral, I repeat, do not constitute the discovery of the mineral itself. If so, a location made upon the discovery of such indications, followed by the proper marking of the boundaries and the doing of the statutory amount of work within the prescribed time, whether the work resulted in the actual discovery of mineral or not, would entitle the locator to apply for and upon due proof and payment, receive the government title to the land as mineral land; which obviously would not only be unauthorized by any provision of the statute, but would be in direct conflict with the sections already cited."

It has been contended by the government that the decision of Judge Ross in this case, and other similar decisions arising under the mining laws, are of no importance to the present inquiry because the mining law requires the ocular demonstration of the mineral in an opening made on the land itself. But we do not so read the law or the decisions. The mining statute merely says that, "No location of a mining claim shall be made until the discovery of the vein or lode within the limits of the claim located" (Sec. 2320, Rev. Stat. U. S.). All that the word "discovery" means here is the ascertainment of the existence of the vein or lode *within* the claim. Such a discovery can rarely be made

with certainty except by a physical exposure within the claim, but even in the case of a lode it has been held that the exposure to the eye may be elsewhere (*Brewster v. Shoemaker,* 28 Colo. 176, 182). That is, the words of the statute, "within the limits of the claim", govern the place where the "vein or lode" must be and not the place furnishing the evidence of their presence *within the claim.* The statute concerning placer claims makes no special requirement as to the actual *place* of discovery. All that is required is that a placer location be made "under like circumstances and conditions" as a lode location (Sec. 2329, Rev. Stat. U. S.). The special statute of 1897 for the location of oil claims makes no change in this respect except the requirement that the proof show that the claim is "chiefly valuable" for oil (29 Stat. L. 525). Under the placer law it has been held that evidence of gold appearing within the claim, *held insufficient in itself to constitute a discovery,* might be supplemented by evidence showing greater amounts of gold disclosed in adjacent ground in a gravel bed apparently passing beneath the claim in question so as to make a showing of a complete discovery (*Lange v. Robinson,* (C. C. A.) 148 Fed. 799; *Cascaden v. Bortolis,* (C. C. A.) 162 Fed. 267). These cases really hold that the *evidence* which actually constituted the full discovery came from *without* the claims. That such a condition *might* also exist as to an oil claim under exceptional facts is indicated by the decision of Judge Ross in another case in which he overruled a demurrer to a bill which alleged a discovery of oil not disclosed in the claim but deduced from sur-

rounding conditions and developments (*Nevada Sierra Oil Co. v. Miller,* 97 Fed. 681, 688-9.) It is obvious that the practical question, with which the mining law is alone concerned, is whether there is valuable mineral *within the claim.* Evidence which certainly indicates this is *discovery,* no matter where the evidence is found, and the word "discovered" is used in the mining law in exactly the same sense in which it was used by this Court in the case of *Deffeback v. Hawke,* 115 U. S. 392, 404, where it was said, "We also say lands *known* at the time of their sale to be thus valuable, in order to avoid any possible conclusion against the validity of titles which may be issued for other kinds of land, in which, years afterwards, rich deposits of mineral may be discovered."

Cases arising under the mining laws, in which it is held that oil is so uncertain in its occurrence and extent that surrounding conditions do not prove a discovery, are therefore directly in point. And they are of special importance since the *amount* of mineral which the miner must show to sustain his claim is far less than must be shown to overcome an agricultural patent (*Chrisman v. Miller,* 197 U. S. 313, 323).

In the case just referred to, in the decision rendered by the Supreme Court of California before it was appealed to this Court, this was said:

> "To constitute a discovery, the law requires something more than conjecture, hope, or even indications. The geological formation of a country may be such as scientific research and practical experience have shown to be likely to yield oil in paying quantities. Taken with this there may be

other surface indications, such as seepage of oil. All these things combined may be sufficient to justify the expectation and hope that, upon drilling a well to sufficient depth, oil may be discovered, but one and all they do not in and of themselves amount to a discovery."

Miller v. Chrisman, 140 Cal. 444, 446.

As in the case decided by Judge Ross, this was said of a location made close to seepages of oil and not far from producing oil wells located on the same anticline. It is apparent that the same decision would have been made with even more emphasis if the land in question, as in the present case, had been in another range of hills and from four to ten miles from the seepages and development relied upon as proof of mineral value.

The case of *Olive Land, etc. Co. v. Olmstead,* 103 Fed. 568, also decided by Judge Ross, furnishes even stronger evidence of the judicial recognition of the futility of attempting to determine the existence of valuable oil deposits from surface indications. In this case the plaintiff had filed forest lieu scrip on the tract in question (but had not yet obtained a patent) and the defendant claimed it under an oil location. The plaintiff sued to quiet his right under his selection. The defendant answered setting up his location. He alleged that the tract in question "had no appreciable value for any purpose except for petroleum that may be obtained by boring or drilling therein; that it is in a well recognized petroleum producing belt, and that adjacent properties in the belt are actually producing petroleum in large and profitable quantities, and that the surface indications of such producing lands and upon the lands in

controversy are the same; that the surface rock and sand and the surface geological formation and stratification upon the lands in controversy are such as would lead any experienced petroleum expert or any practical geologist familiar with petroleum bearing lands in California to pronounce the same oil or petroleum territory, and chiefly valuable therefor; that one of the most pronounced and well marked anticlinal folds of sandstone and shale formation in Ventura County runs through the land in controversy and has its apex thereon, and that where said anticlinal fold is most exposed by a declivity which sharply cuts the same, bituminous sand several feet in thickness and 100 or more feet long is clearly visible, which sand, when excavated gives out a distinct odor of petroleum; that such bituminous sand, in the formation in which it is found, shows the land in controversy to be mineral or petroleum in character, and constitutes such a discovery as would justify any prudent miner in locating the same * * * " (pp. 570-1). The plaintiff moved for judgment on the pleadings, which, of course, admitted what the defendant had pleaded. We therefore have here much stronger and more direct testimony of the "oil value" of the tract in question than the government has presented in our case. But because all the things alleged by the defendant were found by the court to be but "mere indications" of oil which was not *known* to exist in fact they were not held sufficient to overcome the "presumption" that the land was of the character indicated by the acceptance by the land officers of the plaintiff's selection.

This decision was quoted and followed by District Judge Bledsoe (whose experience in oil cases is even greater than that of Judge Ross) in the recent case of *United States v. McCutchen,* 238 Fed. 575, 591. This latter case is of peculiar interest in the present connection. The claim there in question is situated in the Midway oil field and lies between the Elk Hills and the Temblor Range, entirely within the area which the government geologist, A. C. Veatch, said was "conclusively" demonstrated to be "valuable oil lands" as early as 1904. The government, however, in the *McCutchen* case, sued to quiet its title to the land on the ground that McCutchen had made no discovery of oil on his claim prior to *September 27, 1909,* when the land was withdrawn from mineral entry. That is, the government alleged and proved in that case that oil was not known to exist as late as 1909 in an area which in the present case is claimed to have been known to contain valuable oil deposits many years earlier.

To the same effect as the cases just cited are the following: *Bay v. Oklahoma, etc., Oil Co.,* 13 Okla. 425; *Weed v. Snook,* 144 Cal. 439; *New England, etc., Co. v. Congdon,* 152 Cal. 211; *McLemore v. Express Oil Co.,* 158 Cal. 559.

The proposition that "indications" are not sufficient has also been recognized in the decisions of the Land Department. In *Dughi v. Harkins,* 2 L. D. 721 (not an oil case), Secretary Teller ruled that mineral character could not be predicated on a mere "theory" that the land "may produce" valuable minerals, adding "in other words, it is facts and not theory which must

control". This decision was quoted with approval in the opinion of this Court in *Davis v. Weibbold,* 139 U. S. 507, 522. In *Hutton v. Forbes,* 31 L. D. 325, 330, producing wells on "*immediately adjacent lands*" and strong indications of oil on the tract in question were considered proof of "actual or known mineral character", but there was no suggestion that the inference could be carried to lands miles away and in a different structure. In *Southwestern Oil Co. v. Atlantic, etc., Ry. Co.* 39 L. D. 335, however, there were no producing wells close at hand but merely "indications" on the land itself, consisting of oil seepages and bituminous shale. This was held not enough for a discovery. In *Butte Oil Company,* 40 L. D. 602, locations were held insufficient which were based on a well containing a small amount of gas and a surface seepage of oil. The rejection of these claims was largely based upon the conclusion of an eminent geologist, Mr. Bailey Willis, that seepages were unsatisfactory evidence of oil at any given place beneath the ground because of the "irregular line of ascent of the oil from its unknown source" (p. 604).

3. Belief not based on clear demonstration is not proof of mineral character.

The courts have uniformly refused to permit belief to be substituted for actual knowledge. The *Diamond Coal* case, as we have shown, presents no exception to this. The cases so holding are numerous. From them may be cited: *Deffeback v. Hawke,* 115 U. S. 392; *Iron Silver Mining Co. v. Reynolds,* 124 U. S. 374; *Iron*

Silver Mng. Co. v. Mike & Star Co., 143 U. S. 394; *Sullivan v. Iron Silver Mng. Co.*, 143 U. S. 431.

In passing on this point in *Iron Silver Mng. Co. v. Reynolds, supra,* in connection with the question whether a lode was *known* to exist within a placer claim, this Court said (p. 383):

> "The court below instructed the jury that it was unnecessary to declare what circumstances might be sufficient to affect a patentee with knowledge as prescribed by the statute, 'for if, in any case, it appear that an application for a patent is made with *intent* to acquire title to a lode or vein which *may* exist in the ground beneath the surface of a placer claim, it is believed a patent issued on such application cannot operate to convey such lode or vein'; and further, that 'that intention could be formed only upon investigation as to the character of the ground, and the belief as to the existence of a valuable lode therein, which would amount to knowledge under the statute'.
>
> "This instruction is plainly erroneous. The statute speaks of acquiring a patent with a knowledge of the existence of a vein or lode within the boundaries of the claim for which patent is sought, not the effect of the *intent* of the party to acquire a lode which may or may not exist, of which he has no knowledge. Nor does it render belief, after examination, in the existence of the lode, knowledge of the fact.
>
> "There may be difficulty in determining whether such knowledge in a given case was had, but between mere belief and knowledge there is a wide difference. The court could not make them synonymous by its charge and thus in effect incorporate new terms into the statute."

The case just quoted is important to the present inquiry in another way, as it contains a fit characteriza-

tion of the sort of evidence that is relied on by the government to prove knowledge in this case. In speaking of the evidence offered in that case, this was said (p. 379):

> "The evidence offered by the defendants, as to the knowledge of the patentees, was of a vague, uncertain and unsatisfactory character. It consisted principally of impressions, beliefs and inferences on the subject, drawn from loose statements made, or theories advanced by the patentees, or persons alleged to have been interested in the claim, or the supposed motives of their conduct."

In the later case of *Sullivan v. Iron Silver Mng. Co., supra,* this Court again condemned the confusion of belief with knowledge and the use of conjectural testimony, saying (p. 435):

> "And after that, defendants offered a mass of testimony, the scope of which was similar to that condemned as insufficient in the case of *Iron Silver Mng. Co. v. Reynolds, supra.* Its purport was that it was commonly believed that underlying all the country in that vicinity was a nearly horizontal vein or deposit, frequently called a blanket vein; and that the parties who were instrumental in securing this placer patent shared in that belief, and obtained the patent with a view to thereafter developing such underlying vein. But whatever beliefs may have been entertained generally, or by the placer patentees alone, there was up to the time the patent was obtained no knowledge in respect thereto. It was, so far as disclosed by this testimony on the part of everybody, patentees included, merely a matter of speculation and belief, based not on any discoveries in the placer tract, or any tracings of a vein or lode adjacent thereto, but on the fact that quite a number of shafts sunk elsewhere in the district had disclosed horizontal de-

> posits of a particular kind of ore, which it was argued might be merely parts of a single vein of continuous extension through all that territory. Such a belief is not the knowledge required by the section."

The theory thus rejected by this Court is very like that adopted by the trial court in the present case, to which reference has been made (ante p. 33).

4. Greater evidence is required to cancel a patent than would have warranted a refusal to grant it in the first place.

Much of the argument of the government has appeared to be made on the theory that cancelation must be ordered in this case if the proven facts are such as would have justified the land officers of the government in refusing the patent in 1904. But this is not the law. The issuance of the patent created a new situation. In the absence of convincing evidence to the contrary it will be presumed that the patent was regular and proper. This suit is in no sense a writ of error or a rehearing to determine whether the evidence in 1904 justified the issuance of the patent. This is directly declared in *United States v. Marshall Mining Co.*, 129 U. S. 579, 588, in the following language:

> "Some point is made, in the bill and in the argument, concerning the amended survey of the Tunnel Lode claim, and the manner of its presentation to the Commissioner of the General Land Office, with other irregularities which are suggested and pointed out; but we think it must be taken to be the settled doctrine of this court that a bill in chancery, brought by the United States to set aside and vacate a patent issued under its authority, is not to be treated as a writ of error, or as a petition for

a rehearing in chancery or as if it were a mere retrial of the case as it was before the land office, with such additional proof as the parties may be able to produce.

"The dignity and character of a patent from the United States is such that the holder of it cannot be called upon to prove that everything has been done that is usual in the proceedings had in the Land Department before its issue, nor can he be called upon to explain every irregularity or even impropriety in the process by which the patent is procured."

5. Fraud cannot be predicated upon the expression of an opinion concerning the existence of hidden mineral deposits.

We have seen that the theory of the government is that the railroad company was guilty of fraud because it knew in 1904 or *ought to have known* that the lands in the Elk Hills were "oil lands", that is, lands so conditioned as to render it possible (or probable) that oil might be found somewhere within them. Such a state of mind would not be knowledge of the *fact* that valuable deposits of oil lay in the very areas in suit, but merely an opinion that it was or might be there or elsewhere in the same range of hills. The affidavit of the railroad selecting agent was in this case but an expression of his opinion that these were not "interdicted mineral" lands (R. 3829) and that "to the best of his knowledge and belief, none of the lands in said list are mineral lands" (R. 3833).

It is not claimed that the maker of this affidavit, or anyone else connected with the patentee, actually knew

or could have known in 1904 of any deposit of oil in these lands. The facts open to them at that time were equally open to anyone else. And the essential ultimate fact whether there was or was not a deposit of oil in these lands was hidden from them as well as from others.

This distinction between the expression of opinion which is not actionable and that of fact, which is, has been often pointed out. "The test by which to determine whether or not a representation is a mere expression of an opinion or a substantive fact, is this: If the representation is as to a matter not equally open to both parties, it may be said to be a statement of fact as such, but if it is as to a matter that rests merely in the judgment of the person making it, and the means of deriving information upon which a fair judgment can be predicated, are equally open to both parties, and there is no artifice or fraud used to prevent the person to be affected thereby from making an examination and forming a judgment in reference to the matter for himself, the representation is a mere expression of an opinion, and, however incorrect, does not support an action for fraud" *(2 Addison on Torts,* Wood's Ed.. Sec. 1186). "Again, it is an expression of opinion, and not a representation of fact, when the existence or non-existence of the matter spoken of, as a present fact, is capable of physical determination, but has not yet been definitely ascertained, and there is no such existing evidence in its favor or against it, except such indications of the probability of its existence as might legitimately give rise to a belief or opinion, but would not warrant

a positive assertion" *(Black, Fraud and Rescission,* Par. 77).

The case of *Southern Development Co. v. Silva,* 125 U. S. 247, 252, applies the distinction as we have just stated it, holding that the representation must be as to a *fact* to warrant relief in equity. It was charged that the defendant, in selling a mine, misrepresented the amount of ore in sight. This was held insufficient, this Court saying, "Besides, the quantity of ore 'in sight' in a mine, as that term is understood among miners, is at best a mere matter of opinion. It cannot be calculated with mathematical or even approximate certainty. The opinion of expert miners, on a question of this kind, might reasonably differ quite materially."

In *Gordon v. Butler,* 105 U. S. 553, the plaintiff was told by the defendant that a quarry, then but slightly developed, but near a known valuable quarry, was worth at least $48,000. On the faith of this statement the plaintiff loaned the defendant $10,000 on the security of this quarry, and, on its proving to be worth less than the loan, sued to recover his loss on the ground of a false representation. In denying relief this Court said:

> "To justify any imputation of fraud in giving the certificate, it was necessary to show that the parties signing it had knowledge, at the time, that the value of the property was materially less than their estimate. And from the nature of the property, and its imperfectly developed condition, such knowledge was impossible. No one could know its actual value until further development was made. Until then, any estimate must have been entirely speculative and conjectural. It would depend as much, perhaps, upon the temperament and expectations of the party making it, as upon any knowledge of the

> facts. * * * Wherever property of any kind depends for its value upon contingencies which may never occur, or developments which may never be made, opinion as to its value must necessarily be more or less of a speculative character, and no action will lie for its expression, however fallacious it may prove, or whatever injury a reliance upon it may produce."

In the case just cited this Court referred with approval to the case of *Holbrook v. Connor,* 60 Me. 578. In this case a vendor represented that land he sold was valuable for oil. When this proved untrue the vendee sued to recover damages. It appeared that at the time of the sale the land had not been tested and it was then unknown to both parties whether it was valuable as oil land, except so far as might be inferred from production of oil on neighboring lands and from a single well on the land in question. The court held that the representation was to be regarded as a matter of opinion and would not support the action.

These cases are so closely analogous to our own case that the principle they establish should be controlling. This principle is that neither law nor equity will grant relief where the right is uncertain. Relief is not denied because representations complained of are found to be mere opinions, but because the ultimate *fact* upon which the relief depends is not made certain.

The cases we have referred to have all been instances where it was represented that the lands contained minerals. The principle must be the same, however, where, as in our own case, the representation is that the lands are *not* valuable for mineral. In each case

opinion is equally uncertain and in each case the observable facts are equally open to all. The case of *Synnott v. Shaughnessy*, 130 U. S. 572, however, presents a situation similar in this respect to our own case. This was a suit by the vendors to cancel a sale of a mine on the ground that the vendee had concealed the fact that there was a valuable lode on the property. It was charged that this lode was discovered by an agent of the vendors and that this agent had colluded with the vendee in concealing this lode from the vendors and in obtaining a sale at a small price. The proof showed that at the time of the sale this lode had not been opened up or its value developed, but was indicated only by surface "float". A day or two after the sale the buyer opened up a valuable mine at the place where the "float" occurred. In denying relief this Court said (p. 579):

> "Such purely surface indications, open to all ordinary observers, and situated on or near the path along which the plaintiffs travelled in going to and from their work, must have been known to them, and are not such as to be made the subject of concealment and misrepresentation. The fact, however, that there was no such discovery of an actual vein or body of ore demonstrates that there could have been no such fraudulent and collusive concealment and misrepresentation, as to its limit and extent, as is charged in this complaint. It required not only a considerable excavation, but also a great outlay of money and great labor on the part of the defendant to develop the existence of a vein of ore."

If the railroad company had known that there was a valuable oil deposit in any tract in dispute and had represented, as it did, that this tract was not mineral,

the government would have a right to recover the tract thus known to be valuable if it relied on the representation and not upon its own investigation. But the cases we have been considering show that if, at the time this representation was made, the actual character of the land was not known and could not be known, the representation actually made was but the expression of an opinion concerning a matter equally open to the observation of all, and, hence, not adequate warrant for cancelation of the patent. And these cases furnish further evidence, if any is needed, that this Court did not intend to make mere belief a substitute for knowledge and fact by its decision in the case of *Diamond Coal Co. v. U. S.*, 233 U. S. 236.

6. Character and amount of evidence required to justify the relief sought.

What we have discussed in the preceding pages naturally leads up to the consideration of the rules which this Court has on many occasions laid down as to the amount and character of proof required to cancel a government patent. Surmise and suspicion that fraud was accomplished or intended is not enough nor, in cases such as this, is evidence which leaves in doubt the essential character of the land sought to be recovered. The fundamental proposition is that the respect due to patent titles is such that they can be set aside by the extraordinary relief of cancelation only where the proof is clear, both that the government has lost what it was entitled to keep and that it has suffered this loss through the intentional wrong of the patentee.

We say "intentional wrong" because a careful and laborious search of the authorities reveals no case where a patent has been canceled for fraud except on such a showing. We are aware that it is now contended by the government that fraud may be predicated on what the patentee *ought* to have known, but did not in fact know or believe. Loose statements may be found in text books lending some support to such a conception of fraud, but, as stated, the courts have always required in cases of this sort that the proof should show some consciousness of the falsity of the representation complained of. Reference can here be made to only a few of the cases in which this Court has ruled, either directly or by necessary intendment that the fraud must be actual, that is, intentional. In *U. S. v. Stinson,* 197 U. S. 200, 206, relief was denied because the conduct of the defendant was found not to "indicate a consciousness of wrongdoing." In *Maxwell Land Grant Case,* 121 U. S. 325, 378, the established "honesty of purpose" and lack of "intentional fraud" decided the suit in favor of the defendants. In *U. S. v. San Jacinto Tin Co.,* 125 U. S. 273, 299, it was found that there was "no such case made of intentional fraud, or actual fraud * * * as justifies the cancelation of the patent." In *U. S. v. Iron Silver Mng. Co.,* 128 U. S. 673, 676, it was said that the false representation must have been "knowingly made". See also: *U. S. v. Clark,* 200 U. S. 601, 608; *U. S. v. Budd,* 144 U. S. 154; *Diamond Coal Co v. U. S.,* 233 U. S. 236; *Washington Securities Co. v. U. S.,* 234 U. S. 76.

In suits of this character the government, unlike a private suitor, is not required to return to the patentee any consideration he may have paid, as a condition to equitable relief *(U. S. v. Trinidad Coal Co.,* 137 U. S. 160). Such suits are therefore essentially penal in their nature. From this it follows that the damage to the government must be real and the fraud which caused it must be intentional, and the proof of each must be strong and convincing. Again, the issuance of the patent itself by a co-ordinate branch of the government is an act to which the courts must accord full respect. "Muniments of title issued by the government", says this Court in *U. S. v. Des Moines Co.,* 142 U. S. 510, 541, "are not to be lightly destroyed."

It is needless to refer to the many decisions of this Court defining the required measure and character of proof demanded in such cases. In the case of *Diamond Coal Co. v. U. S.,* 233 U. S. 236, 239, most of them are cited and their result is thus summed up:

> "The respect due to a patent, the presumption that all the preceding steps required by law were duly observed, and the obvious necessity for stability of titles resting upon those official instruments require that in suits to annul them the government shall bear the burden of proof and shall sustain it by that class of evidence which commands respect and that amount of it which produces conviction."

C. THE PATENT IN THIS CASE WAS ISSUED SOLELY BECAUSE OF THE INDEPENDENT DETERMINATION BY THE GOVERNMENT THAT THE LANDS IN SUIT WERE NOT MINERAL LANDS.

It is necessary for the government to show in this case that it was induced by the fraud of the railroad company to conclude that these lands were not valuable for oil. It is charged in the bill of complaint that by reason of the false affidavits of C. W. Eberlein, the railroad selecting agent, the officials of the government "were induced to and did omit to make any examination, investigation or inquiry" or to "in any manner adjudicate or determine whether any of said lands were in fact mineral or non-mineral in character" (R. 13-14). These allegations were made because they were necessary to the statement of a cause of suit. This Court has held that a false representation must be relied upon to be actionable either in law or equity (*Southern Development Co. v. Silva*, 125 U. S. 247, 250). This decision was in a suit between private litigants, but the rule is the same when the government is the plaintiff. "When the United States enters a court as a litigant," says Mr. Justice Field in the case of *United States v. Flint*, 4 Sawyer 43, "it waives its exemption from legal proceedings and stands upon the same footing with private individuals, and therefore, if on a consideration of all the circumstances of a given case, it will be inequitable to grant the relief prayed against a citizen, such relief will be refused by a court of equity though the United States be the suitor."

There was, however, an entire failure to support these allegations in the bill. In fact, the proof shows that the patent now in question was issued solely because the agents of the government had examined the lands in suit and reported to the General Land Office that they were not oil lands.

Going back to the time preceding the application for the patent it appears that the government land officers knew as much about these lands and of the general situation in the region as did the railroad company. In 1899, as we have seen, protest was made by the oil locators against agricultural selections in this region. E. C. Finney, the clerk in the General Land Office, who later had most to do in that office with the rialroad selection of the lands now sued for, testified that in the latter part of 1899 that office received "various letters and petitions from people in California who * * * represented that, unless the lands were suspended from agricultural disposition and the various forms of forest lieu selections, scrip, railroad selections and other non-mineral filings, patents would be obtained thereto under the agricultural laws without affording sufficient time to make adequate explorations for minerals, and the Commissioner was asked to suspend the lands from disposition for a reasonable time so that explorations might be made in areas alleged to contain oil" (R. 1581-2). As a result of these protests thousands of acres in this region, including the very lands in suit, were in 1900 withdrawn from agricultural entry because they were alleged to be oil lands (R. 1581-2; 1524). This shows that the attention of the government was called to the

possibility of there being oil in the Elk Hills several years before the patent issued.

Following this withdrawal, Jay Cummings, a special agent of the General Land Office, was directed to report whether any of these withdrawn lands should be restored to entry. On July 13, 1900, he sent a long report to the Commissioner in which he described in enthusiastic and even extravagant terms the oil possibilities of the entire southern end of the San Joaquin Valley, saying that petroleum might be expected to be found in "fabulous quantities" almost anywhere within the withdrawn area (R. 1528). In the same report he called attention to what he termed fraudulent attempts to gain agricultural titles to many portions of the withdrawn area. The allegations upon which this withdrawal was based and the report of Cummings must have impressed the land officials in Washington with the idea that the entire suspended region might be valuable for oil, so that no mere *pro forma* selection affidavit to the contrary could have made an impression. It is quite probable that Cummings made other later reports to the same effect. He stated in the report mentioned that it was his intention to make further reports. S. P. Wible, a witness for the government, testified that Cummings was in and out of the McKittrick district for several years after 1900 (R. 331).

The information received by the government land officials up to this time was general rather than specific. But in 1902, George H. Eldridge, a distinguished geologist connected with the Geological Survey (R. 929), made a study of the geology of the McKittrick region

in relation to the occurrence of oil. His conclusions were published early in 1903 in *Bulletin 213* of the Geological Survey. In this bulletin he discussed the McKittrick oil field and other adjacent fields and called attention to the fact that the McKittrick oil formation was very narrow and that there were other "parallel folds", his description of which would apparently include the Elk Hills and the Buena Vista Hills. As to these latter folds he said they were "apparently, so far as is at present known, without especial accumulation of petroleum" (R. 929-30).

This is an important contemporary statement by a distinguished and disinterested geologist that oil was not then known to exist *outside the narrow McKittrick anticline*. This bulletin was one of the official publications of the Interior Department and, if it became known to the officials of the Land Department, must have led to a material modification of the impressions produced by the Cummings report. It was known to the geologists of the railroad company in 1903, when they began work in this region, and must have served to confirm their own views and those of practical oil men as to the narrow limits of oil (R. 2378).

Following the issuance of this bulletin the railroad selection of these lands in the Elk Hills was filed on November 14, 1903 (R. 3754). The affidavits accompanying it merely alleged, in the general form prescribed by the government itself in the Regulations of July 9, 1894 (19 L. D. 21), that the selected lands were not "interdicted mineral lands" and that "to the best

of the knowledge and belief'' of the selecting agent none of them were mineral lands (R. 3829, 3832).

These affidavits appear to have made no impression against the earlier idea of the government land officers that all the suspended lands might be valuable for oil. The selection was promptly rejected. The sole reason for the rejection was the withdrawal order of February, 1900, which was itself supported only by hearsay reports (R. 3756-7). It is obvious, therefore, that the land officials of the government were not convinced and misled by the selection affidavits in the manner alleged in the bill of complaint.

An appeal was at once taken by the railroad company from the order rejecting the selection (R. 3865). In a letter written by the chief counsel of the railroad company on December 9, 1903, to the land agent of the company the suggestion was made that a *hearing* might be had before the local land officers to determine the character of the land (R. 1577-8). This clearly indicates that there was nothing to conceal so far as the railroad company was concerned. In connection with earlier selection lists conflicting with this general withdrawal order the company had asked for such hearings (R. 1473). But about this time the government, instead of directing hearings in the usual way, had inaugurated the system of having specific tracts within the withdrawn area examined by its own special agents to determine whether they contained oil or not (R. 1528, 1483). This procedure did not apply to railroad selections alone, but seems to have been generally followed as to

any sort of application for a non-mineral patent within the withdrawn area (R. 1513-16).

Because of this practice, instead of at once asking for a hearing, the railroad company in this instance applied to the Commissioner of the General Land Office to have an examination made of the lands now in suit by a special agent (R. 1544). On December 10, 1903, the Commissioner replied that a special agent had been instructed to examine and report on them (R. 1483).

The direction to examine these lands was sent to E. C. Ryan, then a special agent of the General Land office. He appears to have been a man in whom that office had considerable confidence. He was the son of the Assistant Secretary of the Interior, and from 1904 to 1907 was in charge of a field division of the General Land Office at Los Angeles, California, with several men under him (R. 1547, 1604, 1607). Official correspondence in evidence further shows that he had been relied on for the examination of other alleged oil lands in the same region prior to this time (R. 1520-1).

On December 10, 1903, the Commissioner directed Ryan to examine the specific lands applied for by the railroad company in the Elk Hills (R. 1547). On January 22, 1904, Ryan reported to the Commissioner on this special examination, saying, "I have the honor to report that on January 10th, 11th, 12th, 13th and 14th, I made a careful examination of the lands in question and found no oil seepages, oil springs, surface or other indications of oil or minerals of any kind that would tend, in my opinion, to warrant said lands being classed

as mineral in character, and I respectfully recommend that they be relieved from suspension" (R. 1550). About 480 acres of the lands referred to in this report are not in this suit, but the evidence shows that not more than a day was given to these outside lands (R. 1972).

This conclusion of Ryan concerning these lands was accepted by the government land officials. His letter was indorsed as a "report on the mineral (oil) character of certain lands", etc. (R. 1551). The Commissioner, on February 11, 1904, in an official letter to the local land officers recited the finding of this special agent, *and nothing else*, as the basis for an order relieving these lands from the oil suspension (R. 1555-6). The rejected selection list was thereupon reinstated on February 26, 1904 (R. 3768, 3835). The list was then advertised for two months in a daily paper in the district (R. 3858), no contests or protests were filed (R. 3861), and the patent was thereafter issued on December 12, 1904.

No further proof of any sort was offered by the railroad company. It is true that on September 6, 1904, a "rearranged" list was filed by the railroad company to correct some purely formal errors in the description of the base lands for which the indemnity was asked, which amended list contained duplicates of the non-mineral affidavits filed with the original list (R. 3771, 3837-51). These affidavits, identical with those accompanying the first list, could have had no more probative effect than the first ones had.

It thus appears that the patent in this case was granted *entirely* on the authority of the Ryan report

with the possible assistance of the Eldridge bulletin. It is therefore not true, as alleged in the bill, that the government officials were "induced" by the railroad company not "to make any examination, investigation or inquiry" as to the character of these lands. We are not concerned with the effort which was made to belittle the qualifications of Ryan to make this examination or to show that he did it in a perfunctory way (R. 1598-1601). It is enough to say in this connection that the testimony of D. W. Maddux, a disinterested witness, who accompanied Ryan during his entire examination on that occasion, shows that he did go over all the lands in question and did endeavor to make a complete examination (R. 1970-3).

It makes no difference whether Ryan was competent or not or whether he made the right sort of investigation of these lands. He was the man chosen by the government to examine them. He did examine them and his report was accepted and acted upon. Not only did the government rely on his report as conclusive, but the railroad company was also led to accept it as conclusive. C. W. Eberlein, who made the selection of these lands for the railroad company, testified that when he heard through the letter of the Commissioner to the local land officers that this examination had been made and its result, he felt that the officers of the government had "backed up the non-mineral character of that land entirely" (R. 1162-3). There is not the slightest suggestion in the evidence that the report of Ryan was influenced by the railroad company, or that it was thought that he was not fully qualified. Eberlein testi-

fied positively that he had nothing to do with Ryan or his report, and that he did not believe that anyone else connected with the railroad company had (R. 1162). In fact, a letter written by Eberlein, on December 10, 1903, indicates a strong apprehension that Ryan was antagonistic to the railroad company and might report adversely on general principals if urged to hasten his examination (R. 1579).

The attempt made in this case to minimize the importance of the Ryan report to the detriment of the rights of the defendants may properly be met by what was said by this Court as to a similar attempt in the case of *Colorado Coal Co. v. United States*, 123 U. S. 307, 321. "If his official conduct was impugned," it is there said, "nevertheless his misconduct, if proved, was not imputable to the defendants, and they should not be prejudiced by the odium of an accusation against him. The United States had trusted him, and, inspired by that confidence, the defendants also had relied upon his official acts".

We have seen that the railroad company intended to ask for a hearing to determine the character of the lands now in question, and that this would have been done if the government had not chosen to proceed through its own agents to determine the matter. Even after Ryan had been directed to report on the lands it was the expressed purpose of the company, as shown by its correspondence, to ask for such a hearing before the local land office in case Ryan's report should be adverse (R. 1484-5). This is not surprising. In another similar case, a few years earlier, the railroad company

had established the character of lands in the vicinity of McKittrick by the taking of testimony before the local land office. In this case, *Tulare Oil and Mining Co. v. S. P. R. R. Co.,* 29 L. D. 269, only four years earlier, and during the excitement caused by the Kern River discovery of oil, the Secretary of the Interior had affirmed a decision of the local land officers holding that land *within a mile* of the outcrop and of producing wells at McKittrick was not oil land. This decision was reached in a case where the railroad selection was vigorously contested by locators, and it is hardly probable that lands in the Elk Hills, from four to ten miles farther away, would have been found to be oil lands in 1904, while the known oil area was still so closely confined to the narrow McKittrick anticline. If such a hearing had then been had as to the lands in suit there is little practical doubt that it would have resulted in a decision for the railroad company which would preclude the present charge of fraud.

But the government chose its own method of determining whether these lands were oil lands and acted upon it. Every act it did in finally granting the patent was based on its own independent investigation and decision. It did not rely on anything done or said by the railroad company in deciding that these lands were not oil lands. On the basis of this fact alone, the decision should be for the defendants.

D. THE LANDS SUED FOR WERE NOT KNOWN MINERAL LANDS AT THE DATE OF THE PATENT.

This branch of the argument has been largely anticipated in what we have said in an earlier part of this brief concerning the case made by the government. It is our purpose here to show somewhat more fully the geological theory upon which the government rests its contention that the lands in suit are "oil lands", and also to contrast this theory with the views of the experienced oil geologists and of the many practical oil men who testified for the defense. We shall point to what was actually done by these men in their search for oil during the time in question as a conclusive reply to the conjectures of the government experts as to what they would have thought and done if they had been on the ground in 1904.

1. Artificial geological theory relied on by government.

As already stated, the geological theories on which this case was rested by counsel for the government were the product of the mind of the witness A. C. Veatch. He prepared a map, Exhibit I, on which he represented a scattered line of asphalt deposits, oil sands and oil seepages extending a distance of thirty miles along the base of the Temblor Range from a short distance northwest of McKittrick to and beyond Sunset to the southeast. Assuming that all of these emanations came from the same general saturated stratum, he made the further purely artificial assumption that this saturation would extend laterally from this line of exposure half the distance of the line of exposure,

or fifteen miles (R. 702, 718). This distance would take in the lands in suit. From these two assumptions he drew the conclusion that "both the Buena Vista Hills and the Elk Hills fall within the proven area from geologic determinations" (R. 702). The wells which existed in 1904, he said, were merely a confirmation of this deduction, and he testified that he would have reached the same conclusion without the wells (R. 823).

We have stated this remarkable proposition just as it was advanced. We have done so because the government case really rests upon it alone. Mr. Veatch was the only witness who pretends to have determined that the Elk Hills were a "proven area" for oil in 1904. It is therefore important to know just how he reached his conclusion.

He admitted that this theory was his own invention and that he knew of no other geologist having applied it anywhere (R. 811). An analysis at once reveals why it was never applied elsewhere. His basic assumption is that his thirty mile line of oil indications were all in one saturated horizon. He was forced to admit that he had not endeavored to determine whether this was so or not (R. 835-7).

He further admitted that, if some of these indications were exposed on the upturned edge of a sedimentary bed distinct and separate from other beds in which the remaining indications appeared, his ratio of lateral oil saturation in the bed in question would only be one-half the exposed edge of this particular sedimentary bed

(R. 847-8). That is, if the exposed oil sands in a particular horizon were only five miles long, he testified that his "geologic determination" would extend to the side of that horizon for a distance of only two and a half miles (R. 808).

The witness J. A. Taff, an oil and coal geologist of long experience, who had had occasion in connection with his work to make a careful and detailed study of the geology of the entire region along the base of the Temblor Range, completely shattered this basic assumption. He pointed out the fact that the seepages, sands and other indications, used by Mr. Veatch to make his thirty mile line, appeared on the edges of at least three different horizontal beds separated by intervening layers of strata (R. 2758-9). And he further pointed out the fact that some of these seepages came from formations which were not porous enough to serve as oil reservoirs in a commercial way and which were in such position, that is, were so old and so deep in the general formation, that by no possibility could they be reached by the drill if their plane extended beneath the Elk Hills (R. 2777). Thus, on the face of the visible geologic evidence, even if Mr. Veatch's rule of lateral saturation were correct, the individual exposed "oil segments" are so short that lateral saturation could not reach the region of the Elk Hills in any instance.

Mr. Veatch's second assumption, concerning the extent of lateral saturation, was likewise condemned by all the geologists who testified for the defendants. F. M. Anderson, one of the most experienced and skilled oil geologists in California, and who had been engaged in the

mapping and study of the oil fields of the San Joaquin Valley almost continuously since 1903, testified that this line of seepages and other indications gave no warrant for assuming that oil would extend out even for a tenth of the distance of the outcrop (R. 2546). He also pointed out the fact, which Mr. Veatch evidently did not realize, that the sands capable of being saturated with oil could be expected to extend only a short distance from the ancient shore line evident along the base of the Temblor Range, owing to the tendency of the sands and gravels to be deposited close to shore (R. 2392-6, 2423-7, 2452, 2463). He explained, at a length too great to be even summarized here, the many uncertain factors of structure, water, faulting, diffusion of oil, absence of source for its supply, alteration of strata and sands, and other conditions which interfere with geological prediction, and stated, as the result of his long experience in the direction of practical oil work, that it was not possible for any geologist, no matter how well qualified, to decide the oil bearing character of land on the basis of structure alone (R. 2547). A geologist, he said, may infer the existence of oil and may with some assurance point out the places where oil can *not* be found, but the only way he knew to actually determine its existence was by drilling (R. 2548-9, 2621-2). The witness J. A. Taff also rejected the Veatch assumption as impractical and called attention to the fact that there was the same sort of a line of seepages and oil sands for a distance of a hundred and fifty miles along the west side of the San Joaquin Valley, which, he said, would make the "oil zone" extend seventy-five miles out into the

valley, if the Veatch assumption were correct (R. 2759, 2777). W. H. Ochsner, another experienced oil geologist, expressed the opinion that the Veatch hypothesis was "exceedingly unwise" and, if followed by drilling, might be "disastrous" (R. 2191-2).

This Veatch hypothesis, by which the "proven" oil character of the lands in suit is sought to be established, is obviously irrelevant, even if correct, unless it is shown that it was known and relied on in 1904. There is no evidence that it was. It is certain that the railroad company had no such notion. F. M. Anderson, the geologist, was in the employ of the railroad company in this very region in 1903, and for several years after that. We have seen that he had no confidence in any such theory. His associate in geological work for the railroad company in that region was Josiah Owen, now deceased. Mr. Anderson testified that he and Owen studied and discussed the geology of this region in 1903 and later, and that they were then in agreement in the conclusion that the Elk Hills "were a long way out from the foothills of the Temblor Range where the oil was likely to be", and that they were "too far away to ever be valuable oil territory" (R. 2383, 2388). This is confirmed by a map, reproduced as Map No. 4 in the Appendix to this brief, which Owen made in March, 1903, and on which he indicated all the lands "supposed to contain oil" as being close to the base of the Temblor Range. The only other man in the employ of the railroad company in that region prior to 1904, who was at all conversant with the oil business, was J. B. Treadwell. He was in charge of the development of oil for use as fuel

on the railroad from two small tracts of land *leased from private owners* on the McKittrick anticline (R. 432). This work was begun in 1899 (R. 164-5) and Treadwell remained in charge until he was succeeded by Owen early in 1903 (R. 424, 2907). During this time Treadwell prepared a map (R. 2903) for the information of E. T. Dumble, chief geologist of the company, showing what he then considered the limits of the possible oil territory (Exhibit 116, reproduced as Map No. 3 in Appendix to this brief). This map shows a very narrow line or area of possible oil territory confined entirely to the McKittrick anticline. This shows that if the Elk Hills were capable of being "proven" in 1904 by this recently invented theory these employees of the railroad company were not aware that it could be done. We shall show under the next head that those who were actually endeavoring to produce oil in this region at that time were equally without thought that there might be oil in the Elk Hills.

It is very apparent that the theory we have been discussing was advanced by Mr. Veatch in the effort to bring this case within the ruling in the case of *Diamond Coal Co. v. United States*, 233 U. S. 236. But he made the double mistake of assuming that oil evidences its occurrence in the same way that coal does and of carrying his deduction many miles farther than it was carried in that case. In this he finds no support in the testimony of any other geologist who appeared in this case. Dr. J. C. Branner, who also testified as an expert for the government, in particular failed to agree with him. According to him, coal mining is not subject to

the uncertainties of oil mining. "In coal mining", he said, "one can get a very close idea of the tonnage to be taken out under a given tract of land; that is, we can calculate the product. It is the rule, in fact, in the anthracite regions in Pennsylvania, that the company will have in its report by its geologist, 'We have so many acres of land. This land yields so many tons an acre', and they count on that just exactly as if it were money in the bank. Now in petroleum mining, of course, you can't do that exact thing; there is an element of uncertainty about it that you don't find in coal mining" (R. 1024).

The witness J. A. Taff, who had had long experience in the examination of coal deposits throughout the country while he was connected with the United States Geological Survey, explained the differences between coal and oil in more detail. Coal, he said, was usually laid down slowly over broad and low lying swampy areas where the conditions remained stable for long periods of time. When formed it stayed just where it had been deposited (R. 2766-7). Oil on the other hand is derived from a source and in a manner not fully understood. It is almost invariably produced from some other formation than that in which it originated. As a rule it is found commercially only in beds of sand. These sand deposits, under the conditions which prevailed in California, are local in character, as if formed by shifting currents and wave action close to the shore lines of former seas and lakes. As the extent of the sand is itself uncertain and the presence of the oil within the sand is still more uncertain, oil can be predicted with

far less assurance than can coal (R. 2766-7). He further testified that even in the case of coal he would not have felt justified in predicting its occurrence as far from the outcroppings as the Elk Hills are from the oil indications along the base of the Temblor Range (R. 2788-93).

2. The real test of what was known is what was thought and done by practical oil men.

The evidence shows that at the time this case was tried development for oil had extended from McKittrick to the southeast into and through the Midway Flat and into the Buena Vista Hills, thus opening up an immense oil territory which was untouched as to the greater part in 1904. To some extent this remarkable development is shown on the map prepared by the government witness F. O. Martin (Exhibit O, reproduced as Map No. 2 in Appendix to this brief). The wells which existed in 1904, both those which were productive and those which were not, are shown on Government Exhibit I, which is not reproduced in this brief on account of its size.

The greater part of this development has occurred since 1908. In 1899 the first successful oil well was drilled at McKittrick (R. 165). At that time there was not a well in the Midway Flat, which is now one of the most prolific oil fields in the world. The first well to strike oil in the Midway field was drilled in March, 1901 (R. 2059). This well was drilled in the foothills at the base of the Temblor Range and the wells which followed it still clung to these foothills until as late as 1907 (R. 2060-1).

Until long after 1904 not a well was drilled by a practical oil man in the Elk Hills or even in the Buena Vista Hills, which lie much closer in towards the oil "indications" along the Temblor Range. The first well was drilled in the Buena Vista Hills in 1909 and 1910. The witness John Pollard, who drilled this well, testified that it encountered a heavy flow of oil on February 2, 1910, and that on the following day there was a great rush to get drilling rigs into the Elk Hills because of the encouragement given by this discovery in the other range of hills (R. 1994).

This, in outline, represents the course of development in this region. There was no legal obstacle to prevent the development of the Midway field and the Buena Vista Hills in earlier years. Oil men are notoriously diligent in following up the quest for oil. There must, therefore, be a reason why they allowed these valuable areas to remain unclaimed so long. This reason is found in their firm conviction up to 1904, and later, that the only possibilities for oil lay close along the base of the Temblor Range. The real situation is well explained by the witness J. J. McClimans, a Pennsylvania oil man of long experience, who went to McKittrick in 1900, and who has remained in charge of oil properties in different parts of this region ever since. "From 1900 to 1905", he said, "the oil development was along the Temblor Range. The only place where there was any oil at that time between McKittrick and Sunset was in the Midway on Section 8, 32-23. Between that and McKittrick there was no development at all; while at McKittrick the development was south and west of the town. The

impression at that time amongst oil men was that the oil was very narrow and I know that they were afraid to go out one side or the other for fear they would get off the belt, and they hugged the Temblor Range pretty close. This continued to be the idea, to my knowledge, up to 1908" (R. 1932). David Kinsey, another experienced oil operator who came to this region before 1900, testified that up to 1905 and later the general belief among oil men "was that the oil zone was pretty well up in the hills from Sunset to McKittrick" (R. 1796). Even as late as 1909 one of the most experienced and successful oil men in that region told Kinsey that he was "crazy" to think of getting oil only a short distance from these hills (R. 1796). Kinsey himself went into the Elk Hills to drill for oil, but not until the rush of 1910. After drilling a perfectly dry hole to a depth of 4850 feet he gave up in disgust (R. 1794-5).

E. J. Miley, another practical oil operator in this region since 1900, testified that prior to the discovery of oil in the Buena Vista Hills in 1910 it would not have been considered "good judgment" to look for oil in these hills or in the Elk Hills (R. 1724). This is in line with the statement of the government expert, Dr. Branner, already quoted, that a geologist "would have been very bold indeed to venture the prediction of oil in the Buena Vista Hills" if it had not been discovered in the vicinity (R. 1992).

Many other witnesses testified to this general impression that the oil zone was narrow and close in to the Temblor Range, but reference can be made to only a few of them (R. 1826, 1887, 1974, 2007, 2060, 2077). Even

the government witness, H. A. Blodget, who showed a strong prejudice against the railroad company in his testimony, and who made hundreds of speculative locations in the Elk Hills during the oil excitement of 1899, admitted that he confined his actual drilling for oil close to the Temblor Range, because he considered that place "more certain" and regarded the Elk Hills as an "unknown" field (R. 393-5). The action of all these men in clinging close to the Temblor Range speaks far more persuasively of what was thought and known at that time than does the testimony of the witness who did not come into this region until later years or of those whose present testimony is unconsciously influenced by the developments which have since taken place.

In reply to the attempts of the government to show that the Elk Hills in particular were generally considered by oil men to be valuable for oil prior to the date of the patent now in suit, the defendants offered the testimony of twenty-five men, all of whom had been engaged in the oil business in that vicinity prior to and at the date of the patent. Most of these men were then actively producing or prospecting for oil in the McKittrick or Midway district. They were in a position enabling them to keep in close touch with current opinion as to where oil might be found. Unlike many of the government witnesses, they were searching for *oil* and not merely for "locations" to be held for speculation. Many of them were active in the search for new territory, either for themselves or for companies by whom they were employed, and therefore reviewed the possibilities of that entire region. If the Elk Hills were at that time *known*

to be oil lands, these men would inevitably have learned that fact. If there had even been a common impression that these hills were possible or "prospective" oil land, they would have heard of it. Most of them had occasion to go into the Elk Hills between the years 1900 and 1905, either to examine them for oil possibilities or for other reasons. Many of them had examined the alleged seepage on Section 32 of Township 30-24. And, with possibly two exceptions, they were men whose interests at the time they testified were entirely independent of those of any of the defendants.

It is not possible to discuss their testimony in detail within the space at our disposal, nor is it necessary to do so. Their names and references to the record where their testimony is to be found are inserted in the margin.* With that unanimity that can come only from the

* NOTE.—(1) E. J. Miley, operator at McKittrick since 1900 (R. 1715-16); (2) David Kinsey, driller and superintendent on "West Side" since 1896 (R. 1796-7); (3) H. C. Goodyear, at McKittrick from 1902 to 1905 doing general work around oil wells (R. 1818); (4) W. H. Cooley, operator and superintendent in McKittrick in 1903 (R. 1810); (5) S. J. Dunlop, operator in Midway since 1899 (R. 1820-1); (6) Fred H. Hall, interested in development of oil in Midway since 1901 and familiar with Elk Hills then and during recent development (R. 1824, 1826); (7) H. W. Thomas, operator of extensive properties on "West Side", in oil business since 1900 (R. 1829-30); (8) R. K. Howk, dealer in oil well machinery, operator of wells at McKittrick from 1901 to 1904 and engaged in examining prospective oil lands for other people at that time (R. 1842-44); (9) B. M. Howe, manager of oil companies, in oil business since 1898, drilling in Midway and examining surrounding country for locations in 1901 (R. 1887); (10) J. J. McClimans, operator in oil business since 1884 in Pennsylvania, and since 1900 in California, operating at McKittrick 1900-4 (R. 1932); (11) H. H. McClintock, superintendent of oil properties, superintendent pipe lines for Standard Oil Co. in McKittrick and Midway fields 1904-10 (R. 1974); (12) M. H. Whittier, operator of extensive oil properties in California and Indian Territory, twenty-three years' active experience, began operating oil wells at McKittrick in 1899 and in close touch with conditions there since (R. 1984-5); (13) C. A. Allison, sold oil well supplies in "West Side" 1900-3 (R. 1999-2000); (14) C. A. Barlow, oil operator in Midway since 1901, collected data for Barlow & Hill's maps from 1901 on, concerning oil development in "West Side" fields (R. 2007); (15) Chas. T. Burks, oil operator in Midway since 1900 (R. 2060); (16) L. E. Doan, operated oil properties in Kern River, Coalinga and "West Side" fields since 1900 (R. 2071); (17) L. B. McMurtry, oil operator in

clear truth of what they say, they testified that during all the years between the beginning of the oil industry in that region and the date of the patent in question, and even later, the common impression was that the oil lay in the narrow zone that has been described along the Temblor Range, and that the Elk Hills were not even considered to be within the range of *possible* production. They even failed to recognize the possibilities of the present Midway field at that time, although a few of them said that it was "suspected" that oil *might* be found there.

It has been claimed in argument that some of these witnesses lent support to the Veatch theory of the wide diffusion of oil. It is true that a few of them, in response to cleverly framed questions on cross-examination, made statements which, if taken without their context, might lend color to the claim that oil sands are persistent and continuous over a wide extent. The fact that these men acted on the assumption that the oil was in a narrow zone, is, of course, ample proof that they did not really believe that distant areas could be "proven" by deduction from surface indications or from existing development. Reference to the testimony of some of those who

Midway and elsewhere since 1900 (R. 2077); (18) E. W. Kay, oil operator in Midway since 1900 (R. 2085); (19) Fred Kimble, in oil business since 1900, at McKittrick and vicinity looking for oil lands in 1903 or 1904 (R. 2117-8); (20) John P. Kerr, fifteen years in oil business, engaged in looking for prospective oil land for large company in "West Side" fields from 1901 on, examined Elk Hills in 1902 (R. 2125); (21) R. E. Graham, oil operator in Midway since 1901 (R. 2132-3); (22) Samuel Shannon, oil operator, began oil business at Coalinga in 1898, went to "West Side" fields in 1904 (R. 2140-1); (23) U. S. Waugh, in oil business since 1898 (R. 2146-7); (24) C. A. Hively, field superintendent Kern Trading & Oil Co., in oil business since 1900, at McKittrick 1900-5 (R. 2161); (25) D. S. Ewing, attorney, interested in oil business in "West Side" fields since 1901 (R. 2250).

are claimed to lend support to the government theory, which testimony is similar to that given by the others, will further show that such claim is unfounded. H. W. Thomas, a practical oil man, as were the others to whom reference will be made, assented to a number of leading questions suggesting that oil might be presumed to "persist for quite a distance" (R. 1835-9). But when he was pressed to say that oil was a "probability" at the point thus defined only as being at "quite a distance", he replied that it would be no more than a "possibility" since oil men had found that it was not "safe" to draw deductions very far from their wells (R. 1837). He added that no oil man would assume that it was safe to drill for such a sand seven or eight miles away from producing territory and said that "even within one mile it would be a gamble" (R. 1840). The witness F. H. Hall stated that "oil sands generally have some uniformity in the direction in which they dip from the outcrop, except where they are broken up", but he added, "I do not mean to say that it is safe to assume that this will be true for several miles" (R. 1826-7). R. K. Howk was asked many questions along the same line (R. 1859-64) and, although he did not dissent from the theory that oil sands might persist "indefinitely unless interrupted" (which is of course obvious), he added the practical remark that oil men "had tried by going out on the dip of the sand and failed to find it" (R. 1861), and recited instances where this had occurred in apparently promising areas close to producing wells (R. 1877). One other instance will be given as it is typical of the ideas of all these men. B. M. Howe, in answer to the

same sort of questions, replied that the oil sand might be presumed to continue "for a ways" unless it "pinched out" and said that "in nearly all oil fields the sand has a certain limit for oil, and when you pass that limit it is water" (R. 1904-5). It is apparent from the testimony of these witnesses that the continuity of the sand and the presence of oil within it are so uncertain that they can not be taken to have been *proven facts* in 1904 in the Elk Hills, from four to ten miles from then producing wells.

3. There are no "indications" of oil in the Elk Hills.

Much of the testimony introduced by the government was devoted to the description of a supposed seepage of oil in Section 32 of Township 30-24, just east of the lands in suit, and of other indications of oil in the Elk Hills. The testimony concerning these was so intermingled with references to seepages, oil sands and asphalt deposits many miles away along the base of the Temblor Range that one unfamiliar with the entire record might gain the impression from this part of the testimony that there were many surface exudations of oil in the Elk Hills and even on the lands now in suit.

But that such is not the fact appears from the maps prepared and introduced by the government itself, Exhibits I and O. Exhibit I was prepared by Mr. Veatch, the chief expert witness for the government, and purports to show the oil wells that existed in 1904 as well as all the seepages or other forms of oil indications found by him or described by other witnesses (R. 111-13). This map shows only two such indications

anywhere near the lands in suit, one just east of these lands in Section 32 of Township 30-24, and the other to the west in Section 14 of Township 30-22. As these two places are situated at the ends of the anticlinal fold which passes through the lands in suit much importance has been attached to them as proof that there is oil in this anticline. On this map Mr. Veatch has indicated another place in the southeastern part of the Elk Hills and remote from the lands in suit, where one of the witnesses, who was without experience in the oil business, had found what he took to be a "very much dried" oil sand (R. 146). Mr. Veatch took this "indication" on faith and it does not appear that he ever saw it (R. 709). It also appeared that he never examined the alleged oil indication on Section 14 to the west of the area in suit but had merely observed the place where it was supposed to be in passing on a train over the line of railroad that runs near it (R. 776-7).

Exhibit O (See Map No. 2, Appendix to this brief) was prepared by F. O. Martin and J. W. Kingsbury, mineral inspectors of the General Land Office (R. 610-12). Unlike the former exhibit, the Martin map purports to show conditions as they existed in 1912. It is to be noted, that this map shows only *one* seepage or "indication" in the entire range of the Elk Hills, that in Section 32 of Township 30-24. He did not testify that he had made any test to determine whether this alleged seepage contained oil. Mr. Veatch, however, did test it with chloroform and found no trace of oil, but he explained this by saying that the oil had probably been "burnt out" in recent years (R. 712-13). The omission

of any possible indication of oil on the Martin map is important as he had spent a great deal of time from 1910 to 1912 in examining the entire range of the Elk Hills and claimed to be familiar with practically every foot of the region (R. 346, 610, 626-7).

We may take it as established, therefore, that these two maps show all the oil indications claimed to exist in the Elk Hills. As already stated in an earlier part of this brief, Jacob Kaerth, a surveyor, testified that he had seen "asphaltum reefs" in many places in the township in which the lands in suit lie (R. 417). Mr. Veatch admitted that he had seen none of these although he had been on every section in this township (R. 801-2). Frank Barrett said that he saw an oil seepage on Section 17 of the lands in suit in 1899 (R. 479-80). But as these lands were not then surveyed and as this witness showed considerable confusion as to his distances and directions, it is probable that he had in mind the supposed seepage in Section 32 in the township to the east. At any rate, no one else saw any seepage in Section 17.

Very little need be said of the "indication" in Section 14 to the west of the lands in suit. As we have seen, the witness Martin omits it. And other witnesses for the defense showed that it consisted merely of "wash" or "float" deposits of asphalt that had been carried down the canyon by water from the vicinity of McKittrick, where there are extensive deposits of asphalt. The witnesses Hotchkiss and Miley determined its real character as early as 1900 (R. 1745, 1789, 2090). Miley said that its character was so evident that any

competent geologist must have recognized that it was merely "float" (R. 1790). This explains why the government expert, Martin, did not mention it on his map. J. A. Taff, the geologist for the defendants already referred to, made a careful examination of this place and its vicinity in 1913 and found that the material observed there did not come from the formation but consisted of separate particles of asphalt, mixed with other detrital material, carried by the stream from the southwest (R. 2765-6). No attempt was made to contradict this testimony on rebuttal. We may therefore take it to be an established fact that there is no seepage at this place. Thus disappears the supposed evidence of oil at the western end of the anticline which passes through the area in suit.

The other supposed evidence of oil in Section 32 at the eastern end of this fold likewise disappeared. Great reliance was placed on this supposed "seepage" in the testimony for the government and it is very likely that misapprehension as to its true character caused many inexperienced oil prospectors to locate claims in its vicinity during the oil excitement of 1899 and later. It is also probable that subsequent realization that it had no connection with oil is what led to the early abandonment of all these claims.

The evidence shows that this supposed "seepage" is a purely local and surface deposit of vegetable matter, somewhat resembling peat, and having no connection with oil or with anything beneath. One or two of the government witnesses, who were not experts in making oil tests, claimed that they had gotten an oil showing

from this material by the use of chloroform. Although the chloroform test is the recognized method of determining whether oil exists or has existed, this test requires an amount of experience and skill not possessed by the ordinary man. An expert by this test can determine whether oil ever existed in a sand even though the sand appears perfectly dry and may have been exposed to the air for a century or more (R. 2764-5).

The geologist F. M. Anderson made a thorough examination of this deposit. He described it as a brownish colored surface deposit of organic material with a fetid smell and containing crystals of sulphur (R. 2474). From this it is apparent that the oil could not have been burned entirely out of it in recent years, as suggested by Mr. Veatch, since this would also have consumed the sulphur. Mr. Anderson tested this material with chloroform and other reagents, with the assistance of a chemist, but did not discover the slightest trace of oil (R. 2476-7). In his opinion this deposit did not have "any connection whatever with the occurrence of petroleum anywhere" (R. 2475).

The most thorough test of this deposit was made by J. A. Taff. In order to determine its extent and character he ran a cut clear through it from top to bottom, thus obtaining a cross section of the entire deposit and demonstrating that it had no connection with or impregnation from the formations below it. A short distance from the surface he found places where this material appeared moist and would "ball up" in the hand (R. 2760-2). This is the same thing which was observed at this place by the government witness

Drouillard in 1874 and 1899 and which led him and others to think that there was oil in this place (A. 121-2). It was to explain the disappearance of this supposed oil that Mr. Veatch suggested that the deposit had been burned since 1899. Mr. Taff also made a series of careful tests of this material but found no trace of oil but did discover that when it was dried it would burn like peat. He concluded that this place was not an oil seepage or petroleum gas "blowout" and that it had no significance in determining the character of the lands in the Elk Hills (R. 2761-2).

This evidence was so conclusive that no effort was made to rebut it. It is confirmed by a careful geological map of this region issued by the Geological Survey in 1910 (Exhibit F), which does not show a single oil sand or asphalt deposit anywhere in the entire range of the Elk Hills, although it shows them in great detail along the base of the Temblor Range. We are therefore able to say from the evidence that there is not a single oil "indication" in the Elk Hills or anywhere near them. With these alleged seepages gone at both ends of the anticline referred to and even from the entire hills, the sole remaining conditions upon which the possibility of oil in the Elk Hills could have been predicated by anyone in 1904 are the wells and seepages many miles away along the Temblor Range. It is, therefore, apparent that the artificial theory of Mr. Veatch, to which we referred a few pages back, must be adopted and applied in its entirety to sustain a decree for the government.

4. The lands in suit have not yet been proven to be valuable for oil.

It is our contention that these lands were not only not *known* to be mineral lands at the time they were patented but that they could not have been so known for the very good reason that subsequent drilling on sections interspersed with them has shown that the finding of oil is hopeless as to the western part of the township and doubtful as to the eastern half. It is obvious that if these lands are not now known to contain valuable deposits of oil the government was not defrauded in 1904 in any view we may take of the evidence. As to the lands which are sued for, it is conceded that not a drop of oil has yet been discovered in any of them.

We have already seen how the discovery of oil in the Buena Vista Hills to the south, in 1910, led to a rush into the Elk Hills. Following this discovery all sorts of people went in to these hills in the effort to find open lands on which to drill. This rush was like that which follows any important mining discovery. Even practical oil men and companies caught the fever, since the unexpected discovery in the Buena Vista Hills had upset their prior notions. The field manager of one of the large oil companies said that his company went in because "everybody was going in; we followed along like a lot of sheep" (R. 2051). Many such companies joined in the rush, including the Associated Oil Company, to be referred to later, of whose stock the defendant Southern Pacific Company owned fifty-one per cent (R. 1888, 1804, 2134, 3656-7). During this rush the present suit was brought.

It was not possible to obtain evidence showing the total amount expended in the Elk Hills for drilling following this influx. The proof shows a total of nearly two million dollars and the real figure is probably much greater. Wells were drilled from one end of the hills to the other, ranging from a few hundred feet to nearly five thousand feet in depth. These wells and their depths and results as to the discovery of oil are shown on Exhibit 16, prepared by the witness W. J. Luke from personal investigation in the field and from the evidence in this case (R. 2256-9). This map is reproduced as Map. No. 6 in the Appendix to this brief. *It shows that there were thirty-six of these wells drilled in the Elk Hills and that only three resulted in the discovery of as much as a gallon of oil.* These three were drilled by the Associated Oil Company and will be spoken of later. Before the evidence in this case was closed these hills were abandoned so far as the search for oil is concerned. One witness testified that he had ridden from one end of the hills to the other in December, 1912, without meeting a soul (R. 2134). Another said that in November of the same year all the properties were idle and that in some places the derricks had been torn down and hauled away (R. 2259). Another witness said that this region now looked to him "like a cemetery of disappointed hopes" (R. 2736).

On the western side of the township in which the lands in suit are situated the Scottish Oil Company drilled a well 4005 feet deep in Section 20, got nothing and abandoned the well and the section (R. 2041-2). This well was near the crest of the anticline and, there-

fore "favorably located" according to geological notions (see Exhibit O, Map 2, Appendix). The Redlands Oil Company, of which the government geologist Ralph Arnold was an incorporator (R. 1980), drilled a well 2850 feet in Section 30 of the same township, got what they thought was a "color of oil", thoroughly tested the well and then abandoned the ground (R. 1954-5). As an indication of the fallibility of geological prediction it is interesting to note that Mr. Arnold advised his associates that they would probably get oil at a depth of 1800 feet (R. 1981). Their failure confirmed his earlier published statement, already referred to, that the prediction of oil in an untried field is "extremely hazardous". Their experiment cost them $50,000 (R. 1954). Another company drilled on Section 32 of the same township to a depth of 2425 feet, got nothing and abandoned its claim after spending $45,000 (R. 1954). Another drilled on Section 28 of this township to a depth of 1670 feet, found some gas but no oil and abandoned the property in April, 1911, after spending about $40,000 (R. 1953-4).

The witness John Lang, who had charge of the drilling of the last well mentioned, acted as adviser in the drilling of the other wells. In December, 1912, he testified that he thought the *eastern* part of this township was "possible" oil territory, but did not think there was any chance to get oil in that part of the township where the Scottish well was drilled. As to the other shallower wells already mentioned, the most he would say was that they might "have a chance" to get oil if they went

deeper (R. 1963, 1968-9). This is far from "clear and convincing" evidence that this part of the township is valuable for oil.

On the eastern side of the township all of the prospect wells were drilled by the Associated Oil Company beginning in 1910. Nine unsuccessful wells were drilled on Sections 22, 24 and 26 to depths ranging from a few feet to nearly three thousand feet. Three other deeper wells drilled by this company did encounter oil in quantities which for a time gave promise of being substantial. These discoveries were made in Sections 24 and 26 of this township and in Section 30 of the township to the east. These wells were respectively 3887, 4030 and 3838 feet deep and were the only wells in these hills that found more than a "color" of oil, though others were as "favorably situated" on the anticline and were as deep or even deeper. It thus appears that the only real evidence of oil anywhere in the Elk Hills was furnished by a subsidiary of one of the defendants *after* this suit was started.

Whether these three wells found oil in commercial amount has been the subject of much controversy. More than five hundred pages of the record (sent up as a separate exhibit) are filled with the confidential daily operating reports of those in charge showing the effort to make them productive. Detailed discussion of this evidence is unnecessary. The witness W. E. White, who was in daily touch with the drilling of these wells, has fairly summarized their record in three simple graphic charts (Exhibits 172, 173, 174). They were drilled by competent men and Mr. White testified that every

known means was employed to make them productive (R. 3170). They were finally shut down in August, 1912 (R. 3156), the production of each of them at that time not exceeding an average of ten barrels a day (R. 3125-6). This would barely pay the wages of a single pumper.

A few facts stand out prominently in connection with these three wells. They cost approximately $60,000 apiece to drill, or more than $15 a foot, and the total cost of all the work of this company in the Elk Hills was $517,616.94 (R. 3124-5). Although two of these three wells gave promise at times of producing at the rate of more than 400 barrels a day (Exhibits 172, 174), their *actual* total production during more than a year of effort to make them produce was only 9941 barrels of oil (R. 3125-6).* It has been sought in argument to materially increase this total by adding up the daily estimates of rate of flow appearing on the charts mentioned above. But Mr. White showed that these "estimates" of *rate* of flow have no real relation to actual production, which was determined by measurement of the oil as it was accumulated (R. 3206, 3250, 3381-2). From the above figures it appears that the oil actually produced cost about $51 a barrel, considering the total amount this company spent in its work, or nearly a hundred times the then market value of the oil. The greatest monthly production of any of these wells was made by that in Section 24 in June, 1912, and did not equal a hundred barrels a day (R. 3126). The witness F. M.

* The amount of 22,651.15 barrels given for one of these wells on page 3125 appears from the context to be a misprint in the original exhibit and should be 2,265.15 barrels.

Anderson showed by amortization tables, based on the experience of numerous other wells, that, even if these wells had shown a daily average of 100 or 150 barrels, they could never be made to pay for their individual cost of drilling and operation (R. 2497-2537).

We have seen that development in the western part of the township in question has shown that it can not be considered even as possible oil land at this time. As to the eastern portion it may be *possible* oil land, looked at in the light of recent development. Even to this extent it must be admitted that its character is shrouded in doubt. If doubtful now, after extensive testing in recent years, it seems too clear for question that in 1904 none of these lands could have been *known* to be actually *valuable* for oil. This Court has ruled more than once that the question whether land is known to be valuable for mineral must be answered in the light of the conditions at the time proof for title is made. If at that time the mineral was unattainable it could have no value then in a commercial sense. As earlier pointed out, it would have been impossible in 1904 to have drilled wells to the depths of these three wells in the Elk Hills with the appliances and methods then known. Many witnesses bore testimony to the fact that great strides have been made in recent years in drilling methods. The witness David Kinsey, who drilled a well in the Elk Hills in 1910 to the remarkable depth of 4850 feet, has described the reasons why it is so hard to drill deep wells in the soft and shifting California formations. He said that even in 1905 there was no machinery "equal to the attempt" to drill a hole 4000 feet deep.

In drilling deep holes, he said, it was necessary to case the hole from top to bottom with extra strong screw jointed pipe so constructed and applied that it could be raised or lowered and thus kept free to pass down with the drill. The available casing in 1904 was not of such design or strength as to stand the strain of long "strings" of it thus suspended from the surface. On this account he said that the ordinary wells in 1904 did not go to a depth of more than 1200 or 1600 feet (R. 1796-8). Therefore, even if the oil which the Associated Oil Company encountered in the Elk Hills had been far greater in amount and its existence had been *known* in 1904 by some sort of divination, it would not have been then valuable as it was unattainable.

The fact that the only *proof* of any oil at all in the Elk Hills was made possible by a company controlled by the Southern Pacific Company, and that this was done *after* the present suit was begun, denotes complete unconsciousness of an earlier fraud. Guilty men do not ordinarily thus assist in proving a material fact from which the imputation of their wrong may be drawn. The importance of this circumstance has not escaped counsel for the government. Various efforts have been made to reconcile it with the charge of fraud. It has been suggested that the railroad company allowed its subsidiary to drill lands interspersed with those in suit because revelation of the hidden oil was certain in any event through the acts of others seeking the same land. This explanation does not fit the facts. Plausible pretext could readily have been found to hold this and other land, without drilling, until this suit was disposed of, or

to delay the actual disclosure of the oil while apparently seeking it with diligence. The large amount spent and the strenuous effort to make the wells produce indicate the utter absence of such a plan. More convincing yet is the testimony of those in charge of the Scottish well in Section 20 to the west that they were encouraged and even assisted by the Associated Oil Company, which had no interest in their claim, to drill deeper when they had actually made up their minds to quit (R. 2043, 2046-7).

It has also been claimed that the Associated Oil Company did endeavor to conceal the extent of its discoveries and to wreck and ruin its wells so that they would be unproductive. But it can not be readily believed that more than half a million dollars would thus be thrown deliberately to the winds by sane men or that, in doing so, they would not have planned better to avoid even a showing of oil. The well casing could easily be driven clear through the oil sand, thus cutting it off until occasion came to open it up.

Without regard for consistency it has also been argued that those in control of the railroad company permitted the Associated Oil Company to discover oil because it was their purpose to gain fraudulent title to the odd sections in this township by the patent now in question and to obtain some of the even sections by means of mineral patents. The latter aim could be accomplished, it is said, only by diligent drilling and actual discovery of oil and for this reason the subsidiary company was given a free hand. Though apparently plausible, this suggestion does not accord with the way in which ordinary men might be expected to proceed in the effort to

conserve the fruits of a conscious fraud. The Associated Oil Company sought a mining patent to only a portion of three sections in this township, and its actual discoveries in this township would not entitle it to more than 320 acres. The railroad company owned but fifty one per cent of the stock of this subsidiary. If there had been a conscious fraud in obtaining the 1904 patent, the danger of disclosing the actual existence of oil would be apparent to those in control. Sane men, if guilty of concealing their knowledge of oil in a tract of six thousand acres which they desired entirely for themselves, would not thus deliberately disclose oil in sections interspersed with their own and thus put their larger holding in possible peril merely to secure a half interest in 320 acres, especially where suit had already been brought charging them with this fraud. The truth of the matter is that the conduct of the railroad company in connection with these wells can be explained only on the ground that there was no fraud and nothing to conceal.

E. THE RAILROAD COMPANY DID NOT BELIEVE IN 1903 AND 1904 THAT THE LANDS IN SUIT WERE VALUABLE FOR OIL.

Much that has already been stated is applicable to this part of the discussion. It has been shown, we believe, that the lands in suit were not *known* by anyone to be valuable for oil at the time they were patented. The case might well be rested on this. But, in order to remove even the imputation that a fraud was contemplated, we shall briefly refer to the ample and convincing evidence proving the good faith of the railroad company in selecting these lands for patent.

At the outset we desire to call attention to one fact which clearly differentiates this case from that presented in *Diamond Coal Co. v. United States,* 233 U. S. 236. In that case the evidence showed that the defendant had no occasion to seek the lands there in question unless they were coal lands, as it could utilize no other sort. This alone was strong proof of a wrong intent. But in our own case this was not the situation. The railroad company was given a large grant of lands, good, bad and indifferent. Its selections were confined within prescribed limits. It had to take these lands or none at all. When its primary or base lands were taken by others, it could select indemnity lands which were even more limited and precarious in choice since no right of the railroad company attached to them at the date of the grant but only after they had been selected and this selection had been approved. Again, the railroad company was not engaged primarily in the oil business and acquired thousands of acres which had little, if any other than a grazing value. The evidence

shows that the lands in suit are of this character. At the time this suit was brought they were leased by the railroad company to sheep men for an annual rental, just as were thousands of other acres in the same region. One lessee testified that he held a lease for these lands together with more than 300,000 other acres of railroad lands (R. 1697). J. A. Ogden, a practical stockman, testified that he had lived in the vicinity of the Elk Hills and that he had grazed cattle in these hills for years and that there was good feed there for a considerable part of the year (R. 1982). H. J. Hart testified that for six months or more these hills had good green feed and that in places where water was applied the soil showed great fertility, and further stated that considerable water was encountered in some of the shallow wells drilled there (R. 2112-16). Ample justification therefore existed for selecting these lands, especially as very little indemnity land remained which could be selected (R. 1154-6, 1313).

A preliminary word of explanation is necessary in order to understand the relation to the issues in this suit of the various employees of the railroad company who will be referred to. The actual selection of the lands in question was made by C. W. Eberlein, who became land agent of the company in August, 1903, and resigned in June, 1908 (R. 1037, 1253). His duties were confined entirely to the selection and sale of lands (R. 1038-9). For many years before the advent of Eberlein, who was sent to California to take charge of land matters by E. H. Harriman (R. 1036), Jerome Madden (now dead) had been land agent. A distinct department

was engaged in the development of fuel oil for use on the locomotives of the company. This department, with which Mr. Eberlein had no connection, was organized in 1897 or 1898 with the employment of J. B. Treadwell to take charge of the development or purchase of oil for use as fuel on the railroad (R. 434). Specifically, Mr. Eberlein was land agent for the Southern Pacific *Railroad* Company, which owned the grant, and Mr. Treadwell was in the employ of the Southern Pacific Company which operated the road under a lease (R. 434), the latter company owning all the stock of the former. Mr. Treadwell went to McKittrick in 1899 and began the production of oil from two small leased tracts close to that town (R. 432). He had nothing whatever to do with the examination or selection of lands for patent (R. 434). Early in 1903 he was succeeded in this work of developing oil by E. T. Dumble, who held the title of chief geologist of the Southern Pacific Company (R. 2907). Josiah Owen, who died in 1909, was placed in immediate charge of this work (R. 2907, 1607). Mr. Owen, who was a geologist, was assisted in his field work by F. M. Anderson, the geologist to whom we have already made frequent reference. During 1903, a subsidiary company, known as the Kern Trading & Oil Company, was formed to operate the oil wells of the company and also to take over by lease such lands of the Southern Pacific Railroad Company as were thought to be "actual", "probable" and "possible" oil lands. This was done to take these lands out of the control of the land agent and thus prevent their possible sale to outsiders, as is explained by Mr. Kruttschnitt, who was

then general manager of the operating railroad company (R. 3084-5). This subsidiary company actually took charge of these lands in April, 1904 (R. 2946), but the lease itself was not finally prepared until August 2, 1904, at which time Mr. Eberlein positively declined to sign it. This circumstance will be discussed more fully later as great importance is attached to it by the government. The lands included in this lease lay to the south and west of those in suit, as appears from Map No. 7 in the Appendix to this brief.

a. Evidence of John R. Scupham and Thomas J. Griffin directly imputing fraudulent plan.

These are the only witnesses for the government who attempted to show that the railroad company consciously planned to obtain a patent to these lands because of the belief that they were oil lands.

The first of these witnesses said that in 1887 he was a "consulting engineer" for the directors of the railroad company (all of whom were dead when he testified) and that during that year he was sent to McKittrick by the general manager of the company (also dead) to report on whether the *asphalt* deposits at that place would justify the building of a branch road to McKittrick (R. 585-7). He testified that he spent part of the first day looking at the asphalt and then spent two days exploring the Elk Hills for oil from four to fifteen miles from the place he was sent to examine. He claims to have found several oil seepages in these hills (R. 587). On his return, he says, he reported to the general manager that the Elk Hills "overlay an oil deposit", which

information was received with gratification and the instruction to go to Jerome Madden, the land agent, to see whether this land had been surveyed so that it could be patented (R. 588, 595). He discovered that it had not been surveyed and says that Madden agreed that this land ought to be surveyed and selected at once as it was valuable for oil (R. 589).

At the most, if this testimony were true, it would show no more than the expression of a conjectural opinion and not knowledge that there was oil in the lands in suit. But even to this extent it does not accord with other facts. H. A. Blodget, a witness for the government, testified that the asphalt deposits at McKittrick were called to the attention of the railroad company by him *after* 1890 and that he induced the building of the road about 1893 (R. 361-3). It is also hardly probable at that early day, when little was thought of oil, that a man sent to examine asphalt deposits would conclude this work in a few hours and then spend two days at distant points looking for oil. And, although he says that Jerome Madden agreed that an application for a survey should be made at once, a simple procedure, and Madden remained land agent of the company for many years, these lands were not surveyed until 1902 and not selected until 1903. This was sixteen years after the alleged report of this witness and after Madden had retired from office and the general manager mentioned had been dead seven years (R. 593). W. E. Youle, another government witness, who had charge of the mining of asphalt at McKittrick in 1893, testified that the supply ran short and that he was told by a

representative of the railroad company that the road would be torn out unless more *asphalt* was found (R. 551). This indicates that oil possibilities were not in mind at that time. And Mr. Scupham admits that he never took up any land in the Elk Hills although in later years he was actually seeking oil lands (R. 607).

The true explanation of the testimony of this witness was furnished by a man who had known him for many years. William Hood, chief engineer for the railroad company, who knew Mr. Scupham since 1868, said that he "had a tendency to wish to appear to be well informed upon every subject upon which he might be questioned" and "that in order to continuously talk, facts as to the subject made very little difference to him". He added that it was commonly said of him that "the partition between his memory and his imagination was obliterated" (R. 3397-8). Mr. Hood, who had himself been connected with the railroad company since 1867, said that the last connection he knew of Mr. Scupham having with the railroad company was as a mere transit man in a survey party in 1872 (R. 3397). It further appears from the testimony of Mr. Scupham that he could very well have gained a familiarity with the region in suit from his activities in the oil fields in that vicinity in recent years.

The only other testimony directly imputing a fraudulent *purpose* is that of Thomas J. Griffin. He recited two conversations, one with J. B. Treadwell in 1902 and the other with E. T. Dumble in 1904. In the first, which he says took place in Texas, Treadwell showed him a map and pointed out the township now in suit

and told him that as a result of the reports of the railroad geologists as to its oil value a patent would be applied for (R. 1327-8). The second conversation, he said, took place in 1904 during the time he was in the employ of the Rio Bravo Oil Company, a subsidiary of the Southern Pacific Company in Texas, and while he was on a train about thirty miles east of the lands in suit. He claims that on that occasion Mr. Dumble pointed toward the Elk Hills and said, "Griffin, right over yonder about thirty miles is the biggest oil field in the world. I know it; so does all the rest of us know it. * * * We have large holdings and expect to have more" (R. 1331).

This testimony is emphatically denied by both Mr. Treadwell and Mr. Dumble (R. 3413-20, 2970-1). There are many improbable features in the story about the Treadwell conversation which the latter pointed out but which need not be discussed here since the proof concerning the other conversation shows that the entire testimony of this witness was a deliberate falsehood. There is no doubt he testified merely for the sake of notoriety. It is to be remembered that he said that his conversation with Mr. Dumble was while he was in the employ of the Rio Bravo Oil Company. Mr. Dumble was in charge of this company and Mr. Griffin claimed that he was going to California with Mr. Dumble on business connected with that company. From the testimony of Mr. Dumble and from documentary records it appears that Mr. Griffin did work for that company between June 1 and September 1, 1904, and at no other time (R. 2972-3). A diary and other contemporary records

kept by Mr. Dumble showed that he had himself made several trips to San Francisco from Texas in 1904 but that Mr. Griffin did not accompany him and further showed that on none of these trips did he pass over or near the line of railroad on which this conversation is claimed to have taken place (R. 2967-8). Further than this it appears from numerous time rolls, receipts, and other papers signed from day to day by Mr. Griffin during the period he was working for the Rio Bravo Oil Company, and particularly from his own itemized *personal expense accounts* rendered to that company during each month of that time, that he was not out of the state of Texas on any day during this period except on two or three short trips to New Orleans (R. 2742-5, Exhibits 30, 31, 32, 33, 34). In a similar way, that is, by current documentary records made by himself, his continuous presence in Texas was established for almost a year before June 1, 1904 (R. 3539-43). It is therefore conclusively demonstrated that the incident and conversation he related could not have occurred. In fact, so clear was this that in the briefs and argument in the Circuit Court of Appeals no reference was made to him by counsel for the government. And by way of full measure a number of reputable citizens of Texas and California testified that he had a very bad reputation as to veracity (R. 3474, 3484, 3489, 3495, 3513, 3515, 3543).

b. Belief of C. W. Eberlein, the selecting agent.

The selection of these lands was made by Mr. Eberlein very shortly after he became acting land agent for

the company, which was in August, 1903. Prior to that time Jerome Madden had been land agent for many years under the supervision of the local officials of the company in California. Mr. Eberlein's position, however, was different. He came into office shortly after E. H. Harriman assumed control, and was sent by the latter from New York to investigate and reorganize the land departments of various roads in the "Harriman System" (R. 1036, 3081). Mr. Kruttschnitt, who was then in charge of the railroad as vice-president and assistant to Mr. Harriman (R. 3080), described Mr. Eberlein as a "nervous, energetic, strenuous person" (R. 3090). He at once discharged every employee in the land department except G. A. Stone, a land examiner, whom he made his assistant (R. 1040-2, 1188). Just before this he had been engaged in the reorganization of the land department of the Union Pacific, and, as he expressed it, had "put it in shape to sell (the land) and did sell it; sold it out very rapidly" (R. 1156). He desired to do the same thing with the Southern Pacific grant but found conditions much more "complicated" (R. 1157). One of the first things he discovered was that through what he considered the inattention of his predecessor large areas of indemnity land had been lost through tardy selection and that for this reason the company had about 50,000 acres of indemnity selection rights and little or no surveyed land to which these rights might be applied (R. 1154-5).

It had been his policy in his prior work to select indemnity lands as soon as they were available (R. 1180). On inquiry he learned that the lands in suit had just

been surveyed and he at once directed his assistant to prepare a selection list for them (R. 1157, 1313-15). As he expressed it, he "could not understand why they had not been selected at once". It has been suggested that he was instigated to make this selection by others. He was emphatic, however, that the selection of these particular lands was due entirely to himself and was positive that if anyone at all had interfered in the matter he would have remembered that fact (R. 1314-5). In truth, the evidence shows such intolerance on his part of the suggestions of others and such friction between him and other employees of the company at that time that his acceptance of a suggestion to select these lands would have been surprising (R. 1167, 1222-3).

At the time he made this selection he had no idea that the lands were or might be valuable for mineral of any sort (R. 1088, 1160, 1163, 1167, 1249-50). He asked Stone, his assistant, whether there was any mineral on them and was told that the latter was quite familiar with these lands and that they were not mineral lands (R. 1088). He was so thoroughly satisfied with what Stone told him of his knowledge of these lands that he did not consider it necessary to have any further examination made (R. 1137). When Stone's account of the character of these lands was shortly afterwards confirmed by the independent examination made by the government itself, he had no reason to consider a further examination (R. 1163). Mr. Stone testified that his knowledge of these lands was general from having been frequently in that region for two years preceding the selection and during the time he was a land examiner for the company (R. 1029).

The only evidence that the selection of these lands was suggested to Eberlein is found in the testimony of Stone, who at the time he testified was quite old and very infirm (R. 3115). The condensed statement of his evidence still bears some indication of the great uncertainty in his mind between surmise and fact. He said that these lands were selected "at the suggestion of Mr. E. T. Dumble, I think" (R. 1029). Again he said that he "thought" that Dumble "pressed the selection for reasons best known to himself" (R. 1030). He had been discharged by Eberlein later on and admitted that this had caused "some bitterness" (R. 1029). According to Eberlein, Stone was "pretty hostile" after this discharge (R. 1184). He had written vague threatening letters (R. 3115-19) due to resentment caused by his discharge and to a "nervous break-down" (R. 1182-7). Under such circumstances his uncertain surmise that he *thought* that E. T. Dumble had asked the selection of these lands is not at all convincing. He did not say that this suggestion had been made to him but the inference was that he *suspected* that it had been made to Eberlein, who, he said, directed the making up of the list (R. 1029).. On the other hand, both Eberlein and Dumble testified that no such thing had occurred and it further appeared that these two men did not meet until nearly a year later (R. 1099, 1120, 1136, 1141-2, 1295, Eberlein; 2927-8, 2983, 3014, Dumble). Testimony of the vague and uncertain character of that given by Stone, even if not flatly contradicted by those against whom his suspicions were directed, is not of the sort which "commands respect" or "produces conviction".

c. Belief of railroad agents who were directly concerned with production of oil.

If there had been any thought that the lands in suit should be selected because of their supposed or possible oil value it seems obvious that it should have originated with those railroad officials and employees who were at that time interested in procuring oil for the company. The case of the government has been tried on the theory that such an idea did thus originate. We shall not attempt to review the entire evidence as to this feature of the case, particularly that part of it which deals merely with alleged hearsay statements and present impressions of what was or was not thought in 1904. Fortunately, we have in the record many clearly established contemporary acts and documents which show what was really thought by the railroad company at that time as to the character of the lands in suit. It is therefore not necessary to rely on later recollections which may be colored by subsequent happenings.

As already stated, the first railroad agent in this region who knew anything about oil, was J. B. Treadwell. He was employed to find oil land for the company and leased privately owned lands close to McKittrick instead of going onto any of the many sections then owned by the company in that vicinity. It appears from Exhibit 179 that prior to 1904 the railroad company had patents, some of which dated back to 1892, covering nearly every odd section in the present Midway oil fields, in the Buena Vista Hills and even in a large part of the Elk Hills. Notwithstanding this large area of land which has since proved valuable for oil in many places, Treadwell,

who was free to go where he pleased, selected land on the McKittrick anticline. This is a convincing indication that he did not then conceive that lands away from the Temblor Range outcroppings had a value for oil. A map prepared by him in 1902 (Map No. 3, Appendix to this brief) shows that he did not then believe that the oil land would extend beyond the narrow McKittrick anticline. It is true that he did recommend that large areas of the lands of the company should be withdrawn from sale in 1899, during the oil excitement of that time. This was done because speculators were buying them at small prices and Treadwell thought that these lands should be held until the company could determine for itself whether they might be oil lands (R. 425-7, 3469-70, Exhibit 115). In fact, this was somewhat the same sort of a withdrawal as that made by the government in 1900. Jerome Madden, the land agent, complained of these Treadwell withdrawals, as they interfered with sales and included very much more land than could be known to be valuable for oil. On being called to account by C. P. Huntington, then president of the company, Treadwell admitted that the reservations were far broader than his information justified but Huntington finally decided that the reservations should stand "as the company could just as well speculate in it as anybody outside" (R. 3470).

The claim that Mr. Treadwell believed that there was oil in the Elk Hills is based solely on the fact that in 1899, during the oil excitement, he was induced by some of his drillers to "locate" some claims in the township east of the lands in suit and in the vicinity of the sup-

posed seepage already referred to. He testified that these locations were made but further stated that as soon as he had a chance to examine the land he and the others concluded to abandon the locations and no attempt was made to keep them up (R. 436, 3426-7, Treadwell; 128-30, Jean; 134-6, Sarnow). The abandonment of these locations is convincing proof that he did not believe that there was oil in these hills.

The testimony offered by the government to prove that Josiah Owen, the railroad geologist, believed that the Elk Hills were oil lands consisted entirely of the recollection of various witnesses of what Owen had said during his lifetime. Testimony of this sort is notoriously unreliable. But, taken at its face value, it did not prove what the government contends, as will appear from a brief reference to what these witnesses said. S. P. Wible, a government witness who claimed an intimate acquaintance with Owen, testified that Owen told him in 1903 or 1904 that he "believed the Elk Hills might contain oil", that "the oil measures lay under them and he thought they would probably be so deep they couldn't be reached and made to pay" (R. 328). Other similar statements were related by this witness as having been made by Owen at that time and during later years, but none of them were more positive. C. F. Haberkern, another government witness, said that Owen told him in September, 1904, that the land in the Elk Hills was "very valuable for fullers earth and gypsum but he thought there was oil there but that it was very deep and wouldn't pay to go after it" (R. 350). No claim has been made in this case that these

lands are valuable for gypsum or fullers earth and the government expert, F. O. Martin, testified that there was not enough of either in these hills to be valuable (R. 683). W. H. McKittrick, another government witness, said that in *1907* Owen told him that he had found large quantities of fullers earth in these hills. "He said", added the witness, "there was a possibility of oil there but oil could not be found under thirty-four hundred feet; of course at that time no one thought of going thirty-four hundred feet for oil" (R. 528).

Owen may have thus speculated on the possibility of oil being found beneath these hills but this testimony does not show a very strong conviction on his part. His son, who had been in close touch with his ideas concerning this region in the later years of his life, said that he was told by his father in 1909 that he was certain that there was a great deal of fullers earth in the Elk Hills and that he thought "there was a chance of oil being there, but that it was deep" (R. 1638-9). This was five years after the date of the patent in question. It is apparent that even at this late time he was still very doubtful. We have already seen that in 1903 Owen agreed with the geologist F. M. Anderson that the Elk Hills were too far from the Temblor Range to be valuable for oil (R. 2382-3, 2388). In 1907 he said the same thing to W. H. Ochsner, another geologist who was associated with him in work in this region (R. 2172). And in 1904 or 1905, on his return from several days' examination of these hills, he told C. A. Hively, who was employed under him, that he "was

unable to discover any indications which led him to believe that there was any oil in the Elk Hills field" (R. 2161).

We are not left to the fallible recollection of witnesses to discover what Owen really thought. In March, 1903, he made a long geological report to E. T. Dumble in which he discussed the geology of the Midway and McKittrick region and suggested where oil might be found but did not mention the Elk Hills as an oil possibility (R. 1615-20). With this report he sent a map (R. 2977), which is reproduced as Map No. 4 in the Appendix to this brief. On this map, to which reference has already been made, the only lands he indicated under the legend "supposed to contain oil" are situated along the base of the Temblor Range. It is interesting to note that the largest areas thus indicated by him are entirely beyond the outside limits of the railroad grant (See Map No. 7). He does indicate an anticline runing through the Elk Hills in Township 30-23, but did not suggest that there was oil there. This was a confidential map for the information of his superiors and there is no question of its authenticity as the legend is in the writing of Owen himself (R. 2977), who died before this suit was threatened. It is far more satisfactory evidence of what Owen then thought than is anything else produced in the case.

From April 1, 1903, Owen and F. M. Anderson worked together in this field (R. 2398, 2406-7). As earlier stated, it had then been determined that a subsidiary company should take over by lease all of the railroad lands which might possibly prove valuable for

oil so that these lands might be in control of the operating officials of the road. These two men were set to work examining the region and making up a list of lands to be included in the lease. Mr. Anderson says that their instructions were very general and that they were allowed to "follow their own devices" as to what land they should include (R. 2427). Mr. Dumble spent little time in the field except in visiting the wells which were in operation, but depended entirely on Owen and Anderson for geological information (R. 2909, 3001). As a result of the joint work of Owen and Anderson, the former submitted maps showing the lands which they thought should be included in this lease, one for the McKittrick field and surrounding region and the other for the Coalinga field about seventy-five miles to the north (R. 2910). From these maps and other data which he had received in the same way Mr. Dumble prepared a map which he sent to Mr. Kruttschnitt, the operating head of the railroad company, with a recommendation that the lands shown on this map be placed in the proposed lease. This map is reproduced as Map No. 5 in the Appendix to this brief. It shows these lands in three classes, "oil lands", "probable oil lands" and "possible oil lands". Of the third class Mr. Dumble said in his letter to Mr. Kruttschnitt, which was dated September 21, 1903, that their value depended "upon the continuance of normal dips and conditions" and that they represented "untested anticlinals which show good indications of oil" (R. 2913). The map shows that these merely *possible* oil lands lie to the south and west of the lands in suit, while the lands

designated as "oil lands" or "probable oil lands" are still farther away. That is, the outermost limits of what they then regarded as merely *possible* oil lands lay between the Temblor Range and the lands in suit. They did include in this category Section 31 in the township in which the lands in suit lie, but this was done solely because this and other sections along the same general diagonal line lay on the north flank of the extension of the proven McKittrick anticline toward the Buena Vista Hills (R. 2702, Anderson; 2953, Dumble). Map No. 7 (Appendix) shows that this lease when finally made up in August, 1904, and when renewed in 1907, followed the same general lines, except that Sections 11 and 13 of Township 30-22 were cut out of the leases.

All this shows that until long after the selection and patent of the lands in suit Mr. Dumble and those associated with him in the search for actual or merely possible oil lands did not include any part of the Elk Hills, though many sections in them were patented. Mr. Dumble, who was in active charge of all this work, has testified that he did not believe that the lands in the Elk Hills were to be thought of as oil lands in 1904 (R. 2905, 2928, 2988, 3014). He further stated that he had nothing whatever to do with the patenting or selection of these lands and did not even know that they were to be selected or had been selected until late in 1904 (R. 2983, 3014-15). His testimony in this respect is borne out so fully by correspondence and other records which he produced that there remains no reasonable ground for doubting the truth of what he says. Doubt has, however, been sought to be cast on what he

testified, as to his belief and that of Josiah Owen, by the introduction of evidence that he and Owen owned stock in the Eight Oil Company, which held locations on some of the even sections in the Elk Hills (R. 323). This evidence was so introduced and has been so used in argument as to create the impression that these claims were taken up in 1904. But it later appeared that these claims were located in 1907 (R. 351), that they were located for fullers earth only (R. 535-8), and that Mr. Dumble had no connection with this company until 1909 (R. 3044-50).

It has been heretofore argued by counsel for the government that the railroad company should have had a special examination made of the lands in suit by Mr. Dumble or his assistants before these lands were selected. The obvious answer is that there was nothing in the knowledge of the time or in the attitude of the government itself suggesting the need of such an examination. And, if it had been made, it would not have changed the situation. The conclusions these geologists reached at that time as to other lands in the vicinity indicate that such an examination would have but confirmed their then idea that these lands were far beyond the limits of possible oil. It is to be remembered that this question must be considered from the standpoint of that time and not of the present. The universal thought of practical oil men then was that the oil was confined within narrow limits far from the lands in suit. There was nothing known or thought at that time suggesting that it was incumbent on anyone to have lands so far away from what was believed to be pos-

sible oil territory examined by geologists on the bare chance that they might be valuable for oil. We have seen that even the government geologist Eldridge eliminated them from the range of possibility. And the failure of the railroad geologists to specially examine them is proof that they were not even suspected to be oil lands. If they had been, it is fair to assume that this fact would have been indicated on some of the confidential reports and maps prepared by the railroad company for its own use. And, in further proof of the limited conception of oil possibilities in 1904, Map No. 7 in the Appendix to this brief shows that the railroad geologists then failed to include in their list of oil lands some of the prolific Midway oil lands lying *between* the Buena Vista Hills and the Temblor Range, although they did include the Buena Vista anticline because it appeared to be a continuation of the proven McKittrick anticline. Much has been learned about this region since 1904 and this case should be judged in the light of that time, when the imagination of oil men was far more limited in its range than it is now.

F. CORRESPONDENCE OF C. W. EBERLEIN, RELIED ON BY GOVERNMENT, DOES NOT INDICATE FRAUDULENT PURPOSE.

Much was made by the government in the courts below of the refusal of C. W. Eberlein to sign the lease of 1904 to the Kern Trading & Oil Company and of certain correspondence which preceded and followed this refusal. In our opinion these matters have been given an importance far out of proportion to their real significance. In fact, in the decision of the District Court the correspondence referred to entirely displaced discussion of the real issue of the case as to whether the lands sued for were mineral in character and known to be such. Properly considered in the light of other facts in the case, this correspondence not only does not indicate fraudulent knowledge or purpose but proves the very contrary, as we shall point out. This was the conclusion reached by the Circuit Court of Appeals (249 Fed. at p. 802).

Before taking up the discussion of this correspondence, we desire to have this Court understand exactly what we consider to be the greatest possible legal bearing these Eberlein letters can have on the real issues of the case. Taken in their most unfavorable light, they show no more than that Eberlein may have thought oil *might* be found in the lands for which he was seeking a patent. This would be mere conjecture on his part and not knowledge that these lands actually did contain valuable oil deposits. Nothing short of such knowledge will satisfy the charge of fraud here made. The only permissible use of these letters, therefore, would

be to show a wrongful *purpose* on his part. Whether or not such a purpose, if found to have existed, resulted in fraudulent and actionable *damage* to the government must depend on other evidence in the case as to the character of the land sued for and what was *known* about it..

In connection with these letters one important fact must be noted. With one exception, they were produced by Mr. Eberlein from a file he had carefully retained in his possession after he left the service of the railroad company in 1908 (R. 1082, 1133, 1177, 1256). During the great San Francisco fire of 1906 these letters were badly charred and burned and practically destroyed. He had copies made from their charred remains and kept these copies until they were produced in court (R. 1134, 1258-61). There is nothing to show that he did this because of a desire to injure the railroad company. On the contrary, he testified that he kept this file for his own "protection", or, as he further explained, "for the protection of the *railroad* company and myself" (R. 1128, 1134). He also said that Judge Cornish of New York, his superior officer in charge of land matters, told him to "keep it close for my own protection as well as his own" (R. 1279). As appears throughout his testimony, he and Judge Cornish were strenuously opposed to having a lease made to the Kern Trading & Oil Company of a large area of railroad lands which would otherwise have remained under their own dominion. The Eberlein letters contain a host of arguments against such a lease. It is evident that he intended to defeat it at any cost. In fact, he never did

sign or consent to it in any way up to the time he resigned in 1908, although he knew from 1904 that the lease was actually in force and being acted upon by everyone else although unsigned by him (R. 1120, 1221).

Guilty men do not ordinarily thus preserve the only evidence of their own guilt. The contention of the government is that these letters show a guilty purpose *on the part of Mr. Eb rlein.* If so, he must have been aware of both the guilty purpose and of the significance of the letters. Why, then, should he have so carefully preserved them and why should he have restored them after the fire of 1906 had furnished a convenient excuse for their destruction and had destroyed the files of his associates? The only explanation consistent with ordinary experience and probability is that he did not think that they indicated a fraud on his part or that of anyone else and did think that they would justify something he had done. He kept these letters because he thought they would be a "protection" to him in case it should be claimed at some time that he had acquiesced without protest in the execution of a lease depriving his department and the Southern Pacific *Railroad* Company of control over such a large body of lands. In one of these letters he stated that he feared that the subsidiary company to whom the lease was to be given might "fall into hostile control" to the damage of the company he represented (R. 1077). He testified that in saying this he had in mind the experience of some of the eastern coal roads and feared that E. H. Harriman might sometime question the making of this lease (R.

1239, 1256). For this reason he determined to make and preserve a "record" of his own position (R. 1196).

Mr. Eberlein belonged to the New York office of the railroad company. In 1903 he was sent to California, at the suggestion of Mr. Harriman, by W. D. Cornish, who was vice-president of the Southern Pacific Railroad Company and in charge of its land affairs (R. 1074, 1096). The primary purpose of his mission was to investigate railroad land administration in California. Mr. Eberlein testified that he never conceded the authority of anyone in California to control him and acted on the assumption that he was "solely in charge" and, he added, "I insisted on doing the thing in my own way" (R. 1167, 1233-4). He admitted that this attitude and the manner of his appointment brought him into frequent "collision" with other officers of the company and said that "the only surprise in the situation is that I lasted as long as I did" (R. 1223).

Shortly after his arrival in California in 1903 he was made *acting* land agent of the Southern Pacific Railroad Company to succeed Jerome Madden. This position was not sought by him and he was anxious to close up his work and get out of it as soon as possible (R. 1301). He at once discharged every employee in Madden's office except the land examiner, G. A. Stone, whom he made his assistant (R. 1188). His attention was early called to the fact that the company had lost a large amount of indemnity lands because of failure to make prompt selections (R. 1154-5). He inquired about recent surveys and learned that one had just been made of

the township in which the lands in suit are situated. "I know I could not understand", he says, "why they hadn't selected it at once. It was always the plan in my time to get after indemnity as soon as it was surveyed" (R. 1157-8). There is no doubt he urged this selection vigorously, as such was his habit. "Mr. Eberlein", testified Mr. Kruttschnitt, "was a nervous, energetic, strenuous person; everything he went into, he went into apparently heart and soul as if it were the only thing to be attended to" (R. 3090). To the suggestion that Stone may have instigated this selection Mr. Eberlein emphatically demurred, saying, "I instigated Stone" (R. 1181).

On November 14, 1903, he filed his selection list for the lands in suit. This list was rejected by the local land officers because the lands were within the area which had been withdrawn from agricultural entry by the blanket order of February 28, 1900 (R. 1159-60). An appeal was taken by the railroad company from this rejection on December 11, 1903 (R. 3864). In connection with this appeal Mr. Eberlein wrote his letter of December 10, 1903 (R. 1577), to D. A. Chambers, attorney for the company in Washington. This is the first letter quoted in the opinion of the District Court as an indication of fraud (R. 74). In this letter, after complaining in his characteristic way because the appeal had been signed by one of the attorneys for the company instead of by himself, he said:

> "I am particularly anxious in regard to this list as the lands adjoin the oil territory, and Mr. Kruttschnitt is very solicitous in regard to it.

"I have had in mind the suggestion you made some time ago in regard to inducing Mr. E. C. Ryan, Special Agent at Los Angeles, to make his report.

"I am not acquainted with Mr. Ryan and it is a matter for serious consideration as to how to approach him.

"It would not do, certainly, to ask for a report recommending the release of the lands selected by us from suspension. In my opinion it would not be politic to ask for a release in any particular district.

"Mr. Ryan would, in all probability, jump at the conclusion that the railroad had some special information in regard to that district, and the result would probably be that our request would have the opposite effect from that desired.

"All that I could do would be in a general way to ask him to submit a report of the lands covered by the order of suspension, which, as you know, embraces a very large area.

"How would it do to ask the Department to suggest to Mr. Ryan that he make a report of so much of the lands within the suspension limits as he has examined up to this time?

"It might be that such a report would cover the very district in which we are operating, and we would then be relieved from the danger of having called particular attention to any locality" (R. 1578-9).

Mr. Kruttschnitt was then general manager of the Southern Pacific Company and in charge of the operation of its trains. He was also assistant to the president, E. H. Harriman. He testified that he had been directed by Mr. Harriman to assist Mr. Eberlein generally in his work, but that he had nothing to do directly with the selection of lands for patent. On being asked if he were specially interested in the lands now sued

for, he said, "I was not. My interest was simply and solely to carry out the instructions of my superior officer, the president, to help matters on that Mr. Eberlein was engaged in" (R. 3094). He further testified that in 1903 or 1904 he had no information or belief derived from Mr. Eberlein, or from any other source, that the lands in question were or might be oil lands (R. 3083, 3089).

It is probable that Mr. Eberlein used Mr. Kruttschnitt's name in this letter merely to stir Mr. Chambers into more rapid action. As usual he was in a hurry to get results. The tone of the entire letter indicates that he suspected a lack of enthusiastic cooperation on the part of the company's law department with which Mr. Chambers was connected. The letter is singularly frank and open, yet it contains no statement indicating that he then even thought that the lands selected were *within* the oil territory. All he said was that they *adjoined* the oil territory. To a certain extent this was true as they lie from four to ten miles east of the then known oil territory. We have already noted that he was greatly concerned because of the large losses of indemnity lands the company had already suffered. Possibly and probably he feared that this land, because of the mere fact that it was near an oil district, might be taken up by speculators if the company selections were not promptly approved. In one of his later letters, to be hereafter quoted, he refers to this very danger (R. 1079).

The references in this letter to E. C. Ryan, the government's special agent who later examined these lands,

prove beyond question that the acts of Mr. Ryan were in no way influenced by the railroad company. In fact, Mr. Eberlein quite evidently feared that Mr. Ryan would, on general principles, report adversely if he were informed that the railroad company was interested. In this connection he testified that he never saw Mr. Ryan or communicated with him in any way (R. 1161-2).

In January, 1904, E. C. Ryan completed his examination of these lands and reported to the government that they were not oil lands (R. 1549). As a result, the general withdrawal order of February 28, 1900, was canceled as to these lands, the application of the railroad company was accepted and the patent was issued on December 12, 1904. In the meantime the selection had been duly advertised and no protests had been received. During all of this time there is no evidence that information had come to Mr. Eberlein or anyone else connected with the company to indicate even a suspicion that there was oil in these lands. In fact no such information could have come as no development had taken place and no oil had been discovered except that from four to ten miles away and in a different range of hills.

We have seen that prior to the date of this patent the operating department of the Southern Pacific Company, under the direction of Mr. Kruttschnitt, had taken possession and control of all patented lands of the Southern Pacific Railroad Company then thought to be "actual", "probable" or "possible" oil lands. Only a few years earlier, Jerome Madden, who preceded Mr.

Eberlein as land agent, had sold large areas of railroad land on the eastern border of the San Joaquin Valley for $2.50 an acre, many of which lands later proved to be valuable for oil. On this account the operating officials of the company, who wanted the oil for locomotive fuel, decided to take the control of all possible oil territory from the land department in order to prevent similar sales (R. 3085). Pursuant to this plan Mr. Kruttschnitt caused the Kern Trading & Oil Company to be organized in May, 1903, to act as the "fuel bureau" of the Southern Pacific Company (R. 3085). As already related, E. T. Dumble, the chief geologist of the operating company, with the assistance of his subordinates, prepared and submitted a map (No. 5, Appendix) to Mr. Kruttschnitt in September, 1903, showing the lands to be taken over under the three heads of "actual", "probable" and "possible" oil lands. The fact that the lands now sued for were not then patented was, of course, sufficient reason for excluding them from this map. But the company did own at that time at least ten other sections in the Elk Hills as favorably situated as the lands now in question (Exhibit 197). None of these were listed by Mr. Dumble as being even *possible* oil lands although there were no restrictions placed on him as to what lands he should include and he was unaware until October, 1904, that the lands in suit had been selected or that it was intended to select them (R. 2953).

The lease transferring the lands designated on the map prepared by Mr. Dumble was finally completed, and signed on August 2, 1904, by C. H. Markham, who

succeeded Mr. Kruttschnitt as general manager of the Southern Pacific Company. On that date Mr. Markham presented the lease to Mr. Eberlein and asked him to sign it as land agent of the Southern Pacific Railroad Company, the lessor (R. 1111). Mr. Eberlein refused to do so and the further correspondence quoted by the District Court as proof of fraud followed this refusal and the insistence of Mr. Markham that the lease should be executed.

The first letter referred to in this connection was written by Mr. Eberlein to his superior officer, Judge W. D. Cornish, who was in New York. It appears in full at pages 1075-9 of the record. As it is long, only portions will be here quoted. Mr. Eberlein began with a complaint about the Kern Trading & Oil Company. "I am totally in the dark", he said, "as to the objects, rights, etc. of this corporation. I have asked for information several times, but it has never been furnished me". He then mentioned the proposed lease, saying, "This lease was concocted without any reference to me, and it has now been sent over for me to execute on behalf of the Southern Pacific Railroad Company. * * * Inasmuch as the lease is made by the land department and the head of that department is taking the responsibility therefor, it does not seem proper that the Southern Pacific Railroad Company shall have nothing to say in regard to the disposition of its royalty oil. * * * As I have already stated, this matter has been hatched for my signature without submission to me and without consultation."

This portion of the letter shows that his real reason for refusing to sign the lease was because it had been "concocted" without consulting him and because it would remove such a large body of lands from the control of his department. The letter contains many other objections to the lease, both generally and as to minor details, but these were mere make-weights, as the chief burden of his complaint was that he had not been consulted. He seemed to fear that if he signed the lease without formal authority from the directors of his company, his action might be questioned at some later time. "Do you think", he said to Judge Cornish in his letter, "it would be wise and expedient and would it serve the purpose of protection if I were to demand action of the board of directors of the Southern Pacfiic Railroad Company ratifying and confirming the lease as it stands, and directing the land agent to sign the lease?"

We have already noted that when called as a witness in this case he stated that he had carefully preserved a copy of this letter and of others for his "protection". Undoubtedly he used this word in the same sense in his letter and in his testimony. His purpose was to make a "record" for his future "protection" by reporting the matter to the New York officers of his company so that the responsibility might rest with them. In his testimony, in speaking of this letter, he said, "All I wished in that case was that all of these different matters be put forth in the light in which they appeared to me and then let my superior officer take the responsibility. * * * It looked to me like a very serious

thing for a man who was less than six months in as complicated a position as that is, and without any information except what he could glean, to take the responsibility for such a lease as that" (R. 1238-9).

Apparently the operating officials of the company had been insistent that the lease should be executed at once. Mr. Eberlein testified that Mr. Markham at that time pressed him to sign the lease "over and over again" and that there was a disposition to "jam" the lease through (R. 1114, 1170, 1257). On account of this urgent demand Mr. Eberlein in this letter asked Judge Cornish to telegraph him what to do, and as an assurance that he could prevent immediate action while awaiting Judge Cornish's reply he further said, "I can stave off the delivery of this document for some time yet, I think, for the reason that if the knowledge of this lease becomes public property it will probably cause us a great deal of trouble in the United States Land Office, and may result in the loss of a large body of adjacent lands which may hereafter turn out to be mineral and oil bearing". This is the portion of this letter which was quoted by the District Court as evidence of fraudulent knowledge (R. 75).

It is to be noted that he spoke in terms of conjecture merely. He said that the lands "may *hereafter* turn out to be mineral". He had no knowledge, or even belief, that they were in fact mineral lands. No such knowledge was then possible. He was merely speculating on a remote chance, which was probably far less real to him than was his strong desire to defeat the lease at any cost. This is further shown by the concluding

paragraph of the same letter where he said, "If it becomes known that we have executed a lease of lands interspersed with those already under selection by us, and that the lease is for oil purposes, it seems to me that it will immediately encourage oil speculators to file upon the land so selected and that the government will have good ground for refusing patent, inasmuch as we practically fix the mineral status of the land by this lease".

It is apparent from this language that the only fear he had was as to the *appearance* which would be caused by this lease and not that it would in fact indicate knowledge of oil. And this language, whether intentionally or not we do not know, made this appearance worse than it was by stating that the leased lands were "interspersed" with those in the selection, which was far from true (See Map No. 7, Appendix).

This was a confidential and intimate letter to his immediate superior, yet it gave no hint that he thought the selected lands were in fact valuable for oil. On the contrary this letter at another place calls Judge Cornish's attention to the fact that the government had examined these lands and found them not to be oil lands. And Mr. Eberlein testified, in reference to this letter, that what he feared was not any disclosure of *fact* concerning the character of these lands, but that the lease would create a dangerous *presumption*, which, though false and contrary to the facts as he knew them, might be taken by the government as an excuse for delaying or denying the patent. His prior observation

had convinced him, he said, that very little was required to induce a government land officer to deny a railroad patent (R. 1090-1, 1167-8, 1249-50).

On September 10, 1904, Mr. Eberlein wrote a similar letter to C. H. Markham (R. 1053-6). In this letter, after objecting to the lease on a variety of grounds, he said:

> "In addition to this there is a very urgent reason for delaying the execution of these papers. We have selected a large body of lands interspersed with the lands to be conveyed by this lease, and which we have represented as non-mineral in character. Should the existence of this lease become known it would go a long way toward establishing the mineral character of the lands referred to, and which are still unpatented. We could not successfully resist a mineral filing after we have practically established the mineral character of the land. I would suggest delay at least until this matter of patent can be adjusted" (R. 1055-6).

The most that he said in this letter was that the lease "might establish the mineral character of the lands". This meant only that the lease might give them a speculative or presumptive value because of propinquity. In addition to writing this letter, Mr. Eberlein testified that he had a number of talks with Mr. Markham in which he protested strongly against the making of the lease because of its possible effect on the patent application (R. 1093, 1171). It also appears that Mr. Markham sent this letter of September 10, 1904, to Mr. Dumble and that the latter replied, stating in effect that the objections were unfounded (R. 2950). If these men had been aware of anything improper in the

selection, they should at once have taken alarm and canceled or modified the lease. But they did not. Instead, on September 21 and again on October 17, 1904, Mr. Markham wrote Mr. Eberlein asking him "whether there is anything in the lease that is really objectionable" (R. 1061, 1069). This question is significant of their understanding of the real reasons which caused Mr. Eberlein to object to the lease. Mr. Kruttschnitt, who at that time was still in control of oil development for the company as the superior officer to Mr. Markham, and who then knew of Mr. Eberlein's refusal to sign the lease, testified in this connection, "He knew I had instructions to develop oil on the lands of the company and I have never been able to trace his objection to signing the lease to anything except pique because he had not been consulted and he considered himself slighted" (R. 3088).

Other letters passed between Mr. Markham and Mr. Eberlein, the former at all times urging the execution of the lease. In a letter dated October 18, 1904, Mr. Eberlein so far yielded in appearance to the insistence of the others that he said that the "whole transaction can be closed as soon as Mr. Dumble reports", referring to some corrections in descriptions that were being made by the latter (R. 1071). But Mr. Eberlein says that he had no intention to sign the lease when he wrote this letter but was merely "sparring for time until Judge Cornish had a chance to pass on it" (R. 1219). But Judge Cornish, although he encouraged Mr. Eberlein to persist in his refusal, never saw fit to otherwise interfere with Mr. Kruttschnitt's plans, although he knew

that the lease had been put into effect without Mr. Eberlein's signature (R. 1242-5). This latter act was done at once and from that time on this lease was treated in every respect as if it had been fully executed (R. 1117-18, 1132, Eberlein; 2958, 3009, 3032, Dumble; 3087-8, Kruttschnitt). Mr. Kruttschnitt testified that as the Southern Pacific Company owned every share of stock of the Southern Pacific Railroad Company he regarded the signing of the lease as necessary only as a "book-keeping" matter and therefore went ahead, since he was acting under the order of Mr. Harriman to develop oil for the company (R. 3088). This latter fact probably explains why Judge Cornish did not attempt to interfere but chose, instead, to assist Mr. Eberlein in making and preserving a "record" for their joint "protection" in the event future developments should cause Mr. Harriman to question the policy of the lease itself.

We have emphasized the conduct of Kruttschnitt, Markham and Dumble in connection with this lease for this reason. They were the persons directly concerned with the procuring of oil and oil lands for the company. If there had been a fraudulent purpose to acquire these lands in the Elk Hills for oil, they, of all persons, should have known it. If they did, their conduct was curiously inconsistent. If they were guilty, the Eberlein letters and protests must have instantly put them on their guard. They are intelligent and able men. The first two are now at the head of two of the largest railroad systems of the country, the Southern Pacific and the Illinois Central (R. 3080, 1171), while Mr. Dumble

had been state geologist in Texas for ten years before he became the chief geologist of the railroad company (R. 2897). It is not to be assumed that men of this caliber would be blind to the danger of exposure and consequent failure of the fraudulent scheme in which it is claimed they were engaged. If they had been guilty, we would expect them to have taken steps at once to avert the danger Mr. Eberlein had suggested. They could have done this readily by changing the lease so as to cut out all the lands near the Elk Hills, especially as such lands were then and are now undeveloped and of slight prospective value for oil. They also must have known that the mere *signing* of the lease was a matter of slight consequence, as an advertisement to the world of what they believed to be oil lands, compared to their visible acts of operation and control of the leased lands in the field itself. Yet, despite the protests of Mr. Eberlein, they proceeded with their operations in the name of the Kern Trading & Oil Company without secrecy of any sort (R. 2947, 2954). In fact, not the slightest change seems to have been made by Mr. Dumble and his associates in the course they had originally outlined. This is not consistent with the conduct of men instigated by a fraudulent purpose.

The only thing done by Mr. Dumble in compliance with Mr. Eberlein's desire was the letter he wrote on December 7, 1904, to W. H. Bancroft, who had succeeded C. H. Markham as general manager. In this letter he said, "In connection with our correspondence regarding the transfer of property to the Kern Trading & Oil Company, I have had a conversation with Mr. Eberlein

and it seems for reasons of policy regarding certain unpatented lands that it will be best not to execute the lease of lands between the Southern Pacific Railroad Company and the Kern Trading & Oil Company at present" (R. 1072). Mr. Dumble testified that he sent this letter after a conversation with Mr. Eberlein about the time the letter was dated (R. 3026) and not on October 6, 1904, as is stated in the opinion of the District Court (R. 76). He said that this conversation made little impression on his mind and that he wrote this letter simply out of deference to Mr. Eberlein's insistence and because it was a matter of indifference to him at the time since the lease was in operation and his work was not being disturbed (R. 2954, 3026). If he had been conscious of anything improper in the matter of the selection of the lands in suit it is not at all likely that he would thus have put his recommendation in the permanent form of a letter addressed to a man in the same building to whom he might readily have given the caution verbally.

The real attitude of Mr. Eberlein toward this lease is shown by the fact that he refused to formally recognize that it existed even after the lands in suit had been patented (R. 1120). As late as February 6, 1907, he wrote a letter to the auditor of the railroad company *denying all knowledge* of such a lease (R. 2955). He then had the original charred lease in his possession as he had saved it from the fire of 1906 and had kept it in his own possession until he produced it in this case (R. 1099, 1177, 1261, 1272). He knew that a search was being made for a copy of this lease following the

destruction of the company's records by this fire but so great was his opposition to the lease, even after all danger was past, that he refused to disclose his copy. Therefore, after a further examination and report by Owen and Anderson, a new lease was drawn up on December 12, 1907, including the lands which are shown on Map No. 7 in the Appendix to this brief. So well was Mr. Eberlein's attitude understood at that time that this lease was signed on behalf of *both* the lessor and lessee by E. E. Calvin, who was vice-president of one and president of the other (R. 2965). And Mr. Eberlein testified that both he and Judge Cornish refused to recognize even this new lease (R. 1276, 1286).

This new lease did not include any of the lands now sued for, although at the time it was executed they had been patented for three years. It included a much larger area than the earlier lease. Owen and Anderson were told to add such lands as they thought proper without restriction (R. 2960). This appears clearly in a notation made by Mr. Dumble at the time on a preliminary list he sent to Mr. Owen and which was found in the papers of the latter after his death with his own notes as to what should be added, which did not include anything in the Elk Hills (R. 1611, 1614). Mr. Anderson testified that he and Owen worked together and that they understood that they were free to include any land they thought might be valuable for oil (R. 2412-15, 2427). He further testified that he did not include the lands now in suit in his 1907 recommendation solely because he did not consider them oil lands (R. 2724-9).

We have discussed these Eberlein letters and the incidents relating to them at much greater length than their real consequence warrants simply because they have been given a meaning and importance by the trial court and by counsel for the government out of keeping with their slight value in determining the real issue in this case. We have elsewhere discussed the total lack of *knowledge* possessed by Mr. Eberlein or anyone else in 1904 concerning possible oil in the lands sued for. Unless such knowledge existed there could have been no fraud. It therefore makes no difference what Mr. Eberlein may have *thought* or what interpretation is now sought to be put upon his words at that time. Even if he did suspect that deep drilling might disclose oil somewhere in these lands, this would not afford a single element of *fact* for the foundation of this suit, or tend to prove the allegation of the bill that these lands were *known* to be valuable for their oil contents when they were selected for patent.

CONCLUSION.

This brief has been necessarily prepared without knowledge of what appears in the brief for the government. We believe, however, that we have called attention to the salient facts upon which the decision of this Court must ultimately rest. Discussion of much of the voluminous record has been omitted since it seems

to us that the controlling facts are few and clearly established. We are confident that the government has failed to prove its charges. In truth, it has offered nothing more substantial than surmises and suspicions. It certainly has not proven its case by "that class of evidence which commands respect and that amount of it which produces conviction".

The words of Mr. Justice Miller in characterizing the case made by the government in *United States v. San Jacinto Tin Company*, 125 U. S. 273, 300, so fitly describe the present case that we may adopt them as our own summary. "So far", he said, "from there being the satisfactory evidence here pointed out of a fraud against the government having been perpetrated in this case, there is really little but suspicion, fierce denunciation, and a bitter use of such words as 'fraud', 'deceit' and 'imposition'. If the case stood alone upon the testimony introduced by the government it would, so far as any fraudulent purpose is concerned, do but little more than raise a suspicion that the parties engaged in the transaction sought their own interest at the expense of the government, and not always by the most appropriate means; but when the testimony for the defense is considered, it refutes, not only the existence of any such fraudulent intent or dishonest acts, but it removes from the main actors in the matter even the suspicion of having used underhand and improper means for the accomplishment of their purposes."

We respectfully submit that the decree of the Circuit Court of Appeals in this case should be affirmed.

February 15, 1919.

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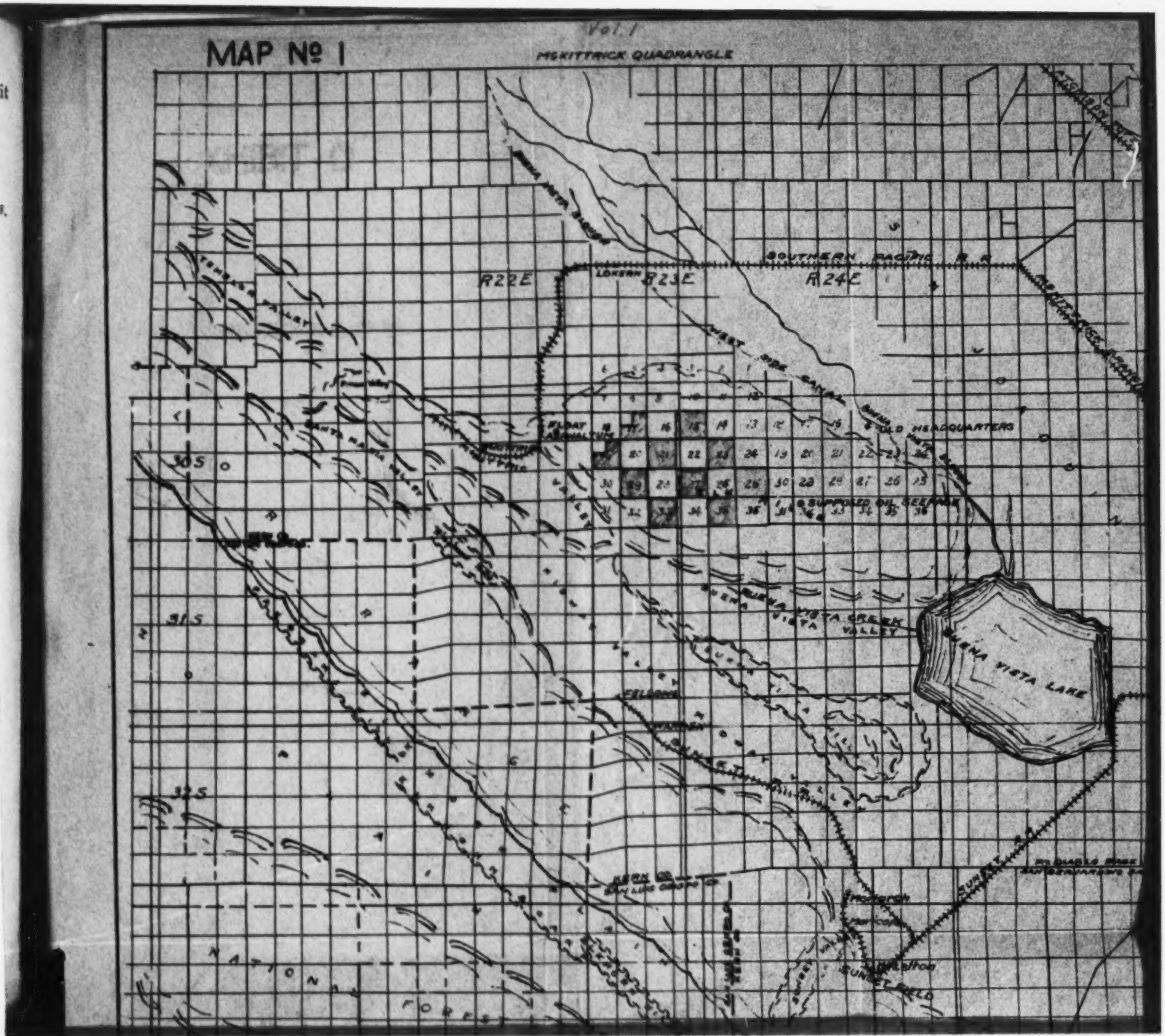
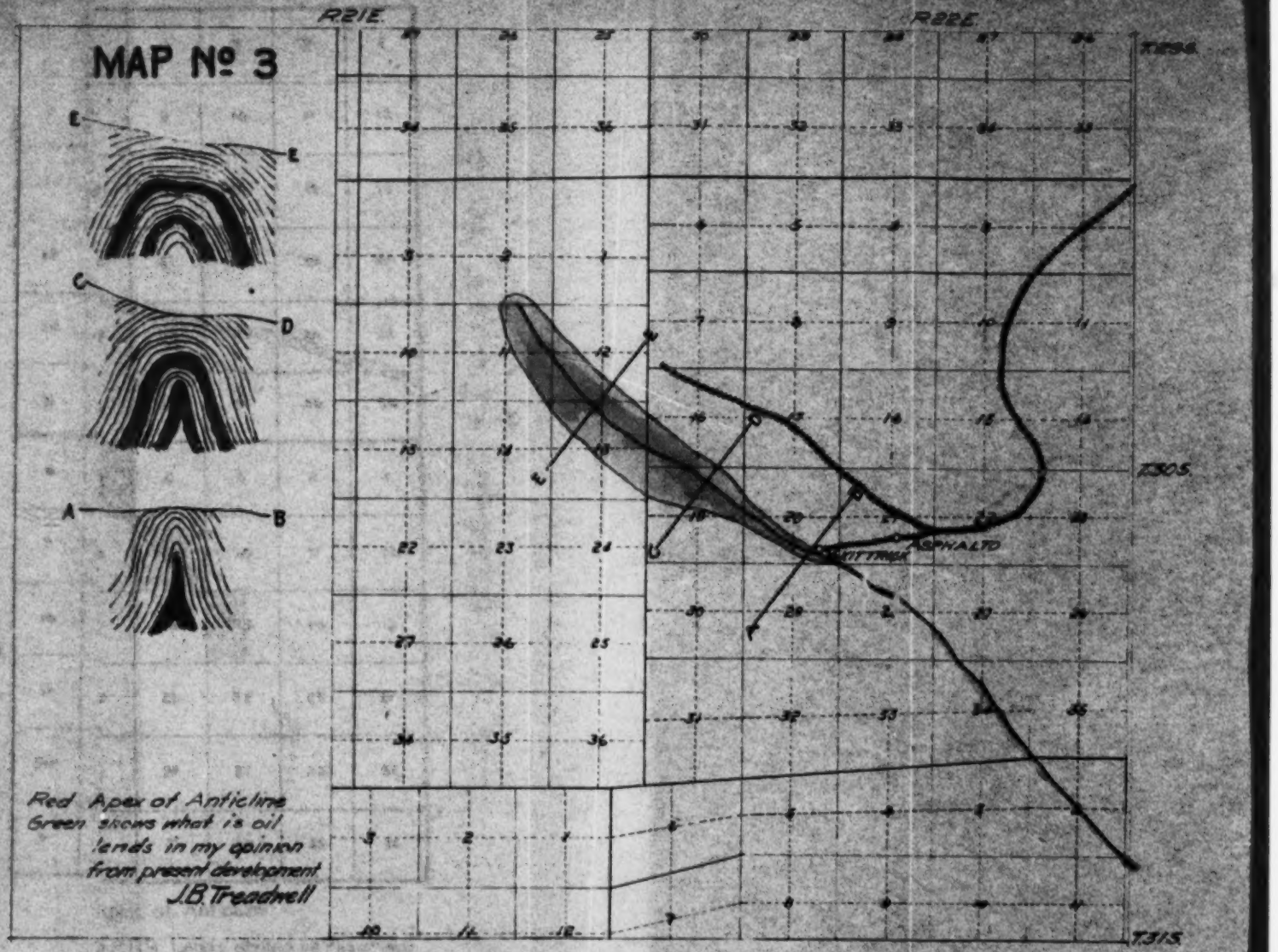
Solicitor for Appellees.

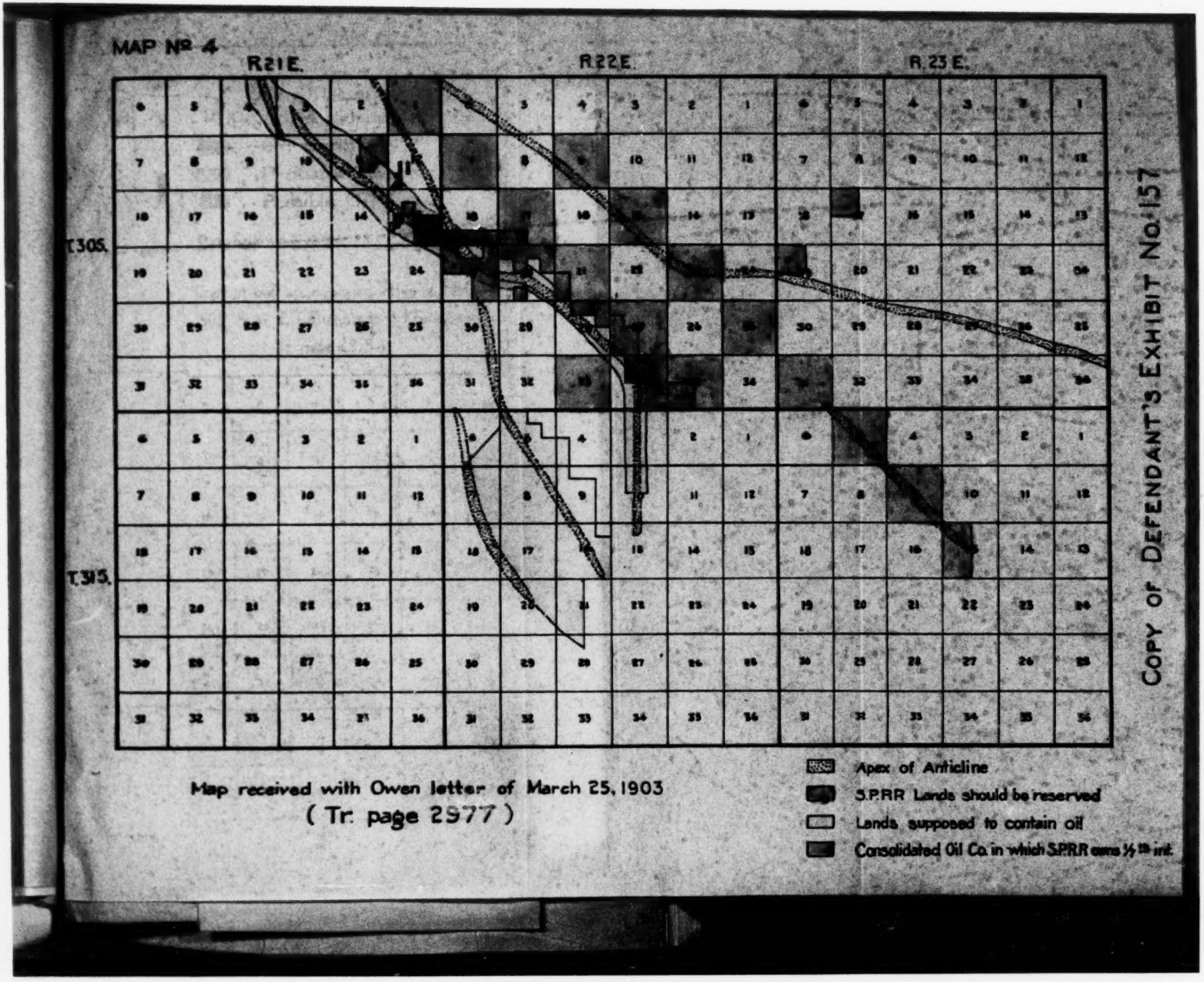
WILLIAM F. HERRIN,
JOSEPH P. BLAIR,
Of Counsel.


Vol. 1
MAP Nº 1
MCKITTRICK QUADRANGLE
SOUTHERN PACIFIC R.R.
R22E
R23E
R24E
WEST SIDE CANAL
FIRST ANTICLINE
OLD HEADQUARTERS
SUPPOSED OIL SEEPAGE
30S
31S
32S
BUENA VISTA CREEK VALLEY
BUENA VISTA LAKE
SUNSET R.R.
SUNSET FIELD
NATIONAL FOREST

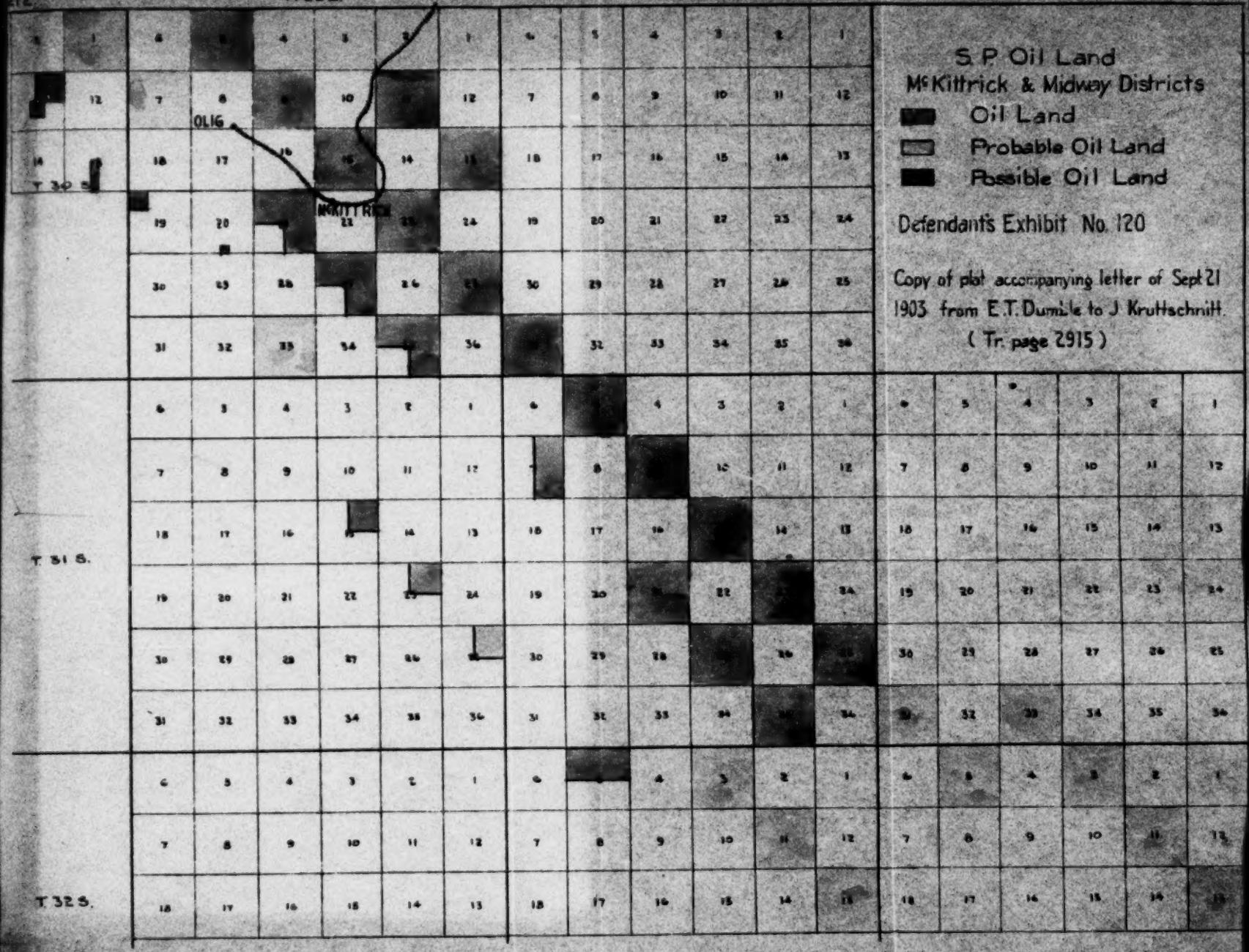
COPY OF MAIN FEATURES OF DEFENDANT'S EXHIBIT NO. 116



Map received by E.T. Dumble from J.B. Treadwell in 1902 Tr. page 2903

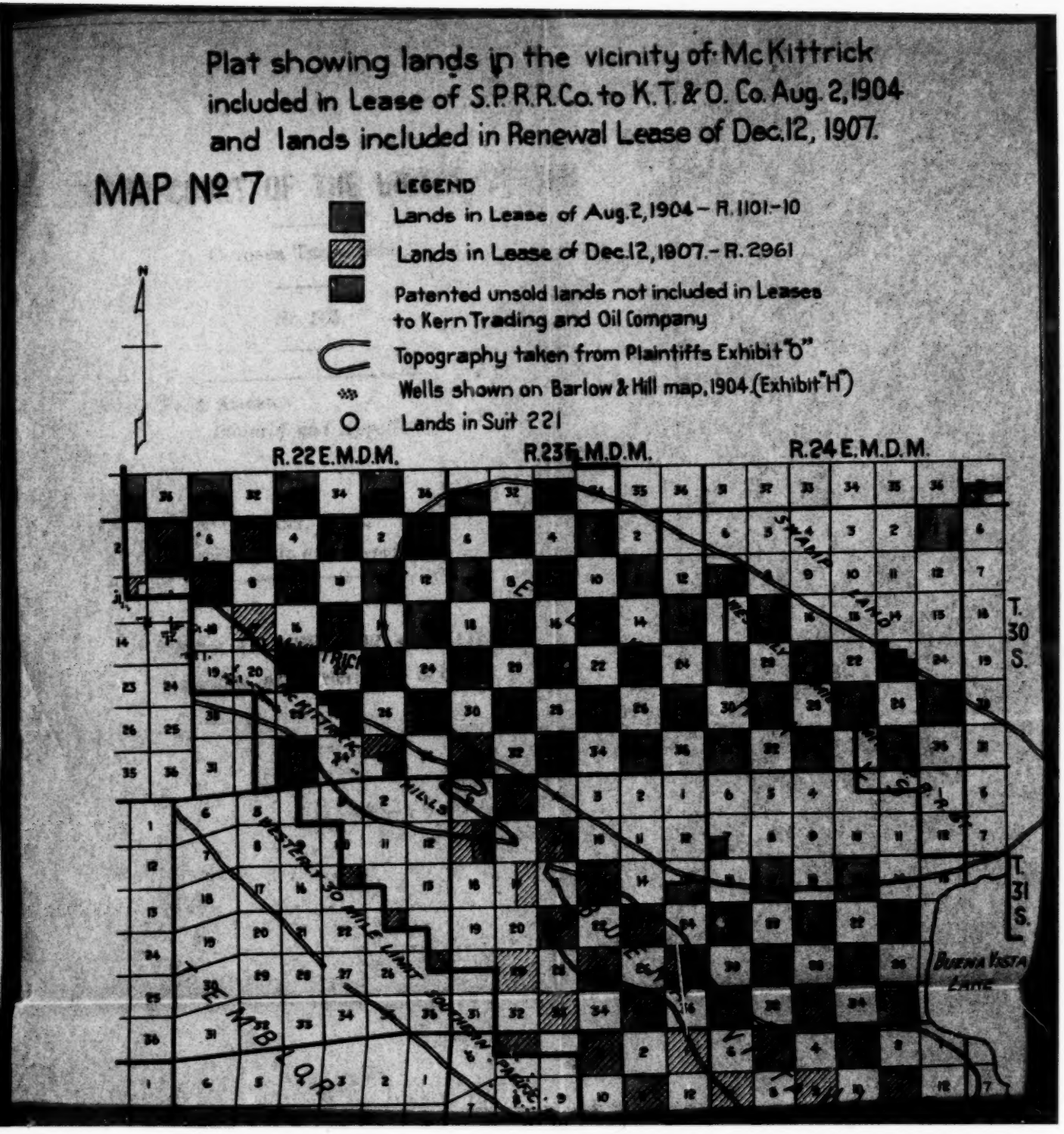

MAP Nº 4
R21E.
R22E.
R.23 E.
T.30S.
T.31S.
Map received with Owen letter of March 25, 1903
(Tr. page 2977)
Apex of Anticline
S.P.R.R Lands should be reserved
Lands supposed to contain oil
Consolidated Oil Co. in which S.P.R.R owns ½ int.
COPY OF DEFENDANT'S EXHIBIT No. 157

MAP Nº 5


R 22E.
R 23E.
R 24E.
T 30 S.
T 31 S.
T 32 S.
OLIG
McKITTRICK
S P Oil Land
McKittrick & Midway Districts
Oil Land
Probable Oil Land
Possible Oil Land
Defendants Exhibit No. 120
Copy of plat accompanying letter of Sept 21 1903 from E.T. Dumble to J Kruttschnitt.
(Tr. page 2915)

Plat showing lands in the vicinity of Mc Kittrick included in Lease of S.P.R.R.Co. to K.T. & O. Co. Aug. 2, 1904 and lands included in Renewal Lease of Dec. 12, 1907.

MAP Nº 7


LEGEND
Lands in Lease of Aug. 2, 1904 – R. 1101-10
Lands in Lease of Dec. 12, 1907. – R. 2961
Patented unsold lands not included in Leases to Kern Trading and Oil Company
Topography taken from Plaintiffs Exhibit "O"
Wells shown on Barlow & Hill map, 1904 (Exhibit "H")
Lands in Suit 221
N
R.22E.M.D.M.
R.23E.M.D.M.
R.24E.M.D.M.
T. 30 S.
T. 31 S.
SOUTHERN PACIFIC RAILROAD
SOUTHERN PACIFIC RAILROAD
SOUTHERN PACIFIC RAILROAD

MAP No 7

Plat showing lands in ti
included in Lease of S.P.R.
and lands included in Re

LEGEND

Lands in Lease

Lands in Lease

Patented unsold
to Kern Trading

Topography fair

Wells shown on

Lands in Suit SS

R.22E.M.D.M.

SUPREME COURT OF THE UNITED STATES

October Term, 1918

No. 585

United States of America,
Plaintiff and Appellant.

v.

Southern Pacific Company, et al.,
Defendants and Appellees.

APPENDIX TO BRIEF FOR APPELLEES,
Containing maps referred to in brief.

Charles R. Lewers,
Solicitor for Appellees.

William F. Herrin,
Joseph P. Blair,
Of Counsel.

In the Supreme Court of the United States.

OCTOBER TERM, 1918.

THE UNITED STATES OF AMERICA, appellant,
v.
THE SOUTHERN PACIFIC COMPANY et al.
No. 585.

APPEAL FROM THE UNITED STATES CIRCUIT COURT OF APPEALS FOR THE NINTH CIRCUIT.

MOTION BY THE UNITED STATES TO ADVANCE.

Comes now the Solicitor General and respectfully moves the court to advance the above-entitled cause for hearing on a day convenient to the court during the present term.

This is a suit by the United States, filed in the District Court of the United States for the Southern District of California against the Southern Pacific Company and others to cancel a patent of the United States for about 6,000 acres of land issued to the Southern Pacific Railroad Company on December 12, 1904, under authority of the act of Congress of July 27, 1866, 14 Stat. 292, and the Joint Resolution of June 28, 1870, 16 Stat. 382, No. 87.

97958—19

The bill alleged that the lands were mineral in character, being particularly valuable on account of deposits of oil and petroleum therein, and not properly subject to acquisition by the Southern Pacific Railroad Company under the granting act, which excluded mineral lands, and that the company, with knowledge of these facts, at the time of making application for patent thereto concealed the true character of the lands from the Land Department. The defendants denied these averments. The value of the lands is placed at ten million dollars.

The District Court found in favor of the Government and entered its decree accordingly. Upon appeal the Circuit Court of Appeals, Judge Gilbert dissenting, reversed that decree and remanded the case with instructions to dismiss the bill. 249 Fed. 785.

The main question in the case is whether at the time of the proceedings resulting in the issuance of the patent the lands were known to be mineral in character, there being then no actual discovery of oil therein. The District Court, under the doctrine laid down in *Diamond Coal and Coke Co.* v. *United States*, 233 U. S. 236, held the surrounding conditions clearly such as to indicate that the lands were chiefly valuable for oil. The Circuit Court of Appeals, distinguishing the instant case from the *Diamond Coal and Coke Co.* case, held that deposits of oil differed so inherently from coal that this doctrine was inapplicable.

The case is of importance because its decision will probably materially affect several pending cases involving a large oil acreage of great value and will also guide the Land Department in cases presented to it. Moreover, the lands here involved are in Naval Petroleum Reserve No. 1, set apart for the use of the Navy.

Opposing counsel concur in this motion.

ALEX. C. KING,
Solicitor General.

JANUARY, 1919.

O

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In the Supreme Court of the United States.

OCTOBER TERM, 1918.

UNITED STATES OF AMERICA, Appellant,
v.
SOUTHERN PACIFIC COMPANY ET AL. } No. 585.

APPEAL FROM THE UNITED STATES CIRCUIT COURT OF APPEALS FOR THE NINTH CIRCUIT.

BRIEF FOR THE UNITED STATES.

STATEMENT.

This is an appeal by the United States from a final decree (R. VII–26) entered May 6, 1918, by the United States Circuit Court of Appeals, Ninth Circuit, reversing a decree (R. I–81) entered August 9, 1915, by the District Court of the United States for the Southern District of California, Northern Division.

This suit was instituted by the United States on December 10, 1910, to annul and cancel patent No. 135 (R. I–19) issued to the Southern Pacific Railroad Company on December 12, 1904, embracing 6109.17 acres of land and including parts of sections 17 and 19 and all of sections 15, 21, 23, 25, 27, 29, 33 and 35 of Township 30 South, Range 23 East, Mt. Diablo Base and Meridian.

The lands in suit are in the southern half of said township 30–23, which is located in a range of hills known as the Elk Hills which are about 16 miles long and six or seven miles wide, situate in Kern County, California.

The bill of complaint charges that the patent was procured through the fraud of the Southern Pacific Railroad Company in that it selected and made application for patent for the lands in controversy supported by certain affidavits wherein it was falsely and fraudulently represented that said lands were not interdicted mineral lands and were of the character contemplated by the grant made by the Act of Congress approved July 27, 1866, 14 Stat. 292, and joint resolution No. 87 approved June 28, 1870, 16 Stat. 382; that said representations contained in said application and affidavits were false in that the said lands were and are mineral lands; that all of said representations were well known to the Railroad Company to be false; were made for the purpose of deceiving the plaintiff and inducing the issuance of the patent and that plaintiff was deceived by said false and fraudulent representations and was induced to and did rely upon the same in issuing said patent. R. I–10–13.

This grant to the Southern Pacific Railroad Company of California, of which the defendant, the Southern Pacific Railroad Company is the successor in interest, was of every alternate section of public land, not mineral, designated by odd numbers to the amount of ten alternate sections per mile on each side

of the line of the road. The Act provided that whenever any of said sections shall have been granted, sold, reserved, occupied by homestead settlers, preempted, or otherwise disposed of, other lands should be selected by the Company in lieu thereof, under the direction of the Secretary of the Interior, in alternate sections and designated by odd numbers not more than ten miles beyond the limits of said alternate sections.

The Act further provided (§ 3):

> That *all mineral lands* be, and the same are hereby, excluded from the operation of this act, and in lieu thereof a like quantity of unoccupied and unappropriated agricultural lands in odd-numbered sections nearest to the line of said road, and within twenty miles thereof, may be selected as above provided: *And provided further*, That the word "mineral," when it occurs in this act, shall not be held to include iron or coal. R. I–5.

The lands lie within the indemnity limits of the grant, having been selected by the Railroad Company in lieu of lands lost within the primary limits.

The taking of testimony began in April, 1912, consumed more than a year, and was concluded in December, 1913. The testimony consisted of more than ten thousand typewritten pages.

The Railroad Company contended that petroleum was not a mineral and much evidence was offered on this phase of the case, but this position was abandoned after the decision of *Burke* v. *Southern Pacific R. R. Co.*, 234 U. S. 669.

The case was exhaustively argued for ten days before Judge Bean in the District Court and he handed down his opinion on June 9, 1915, holding that the Government was entitled to the relief demanded. His opinion will be found in R. I, beginning at page 71. It is not reported.

A final decree was entered in the District Court on August 9, 1915, cancelling the patent embracing the lands in controversy. R. I–81. From this decree the defendants appealed and the case was argued in the Circuit Court of Appeals on May 10, 1917, before Hon. Wm. B. Gilbert, Senior Circuit Judge, presiding, and Hon. Wm. H. Hunt, Circuit Judge, and Hon. Frank S. Dietrich, District Judge.

The opinion of the Circuit Court of Appeals written by District Judge Dietrich was filed on May 6, 1918, and will be found in R. VII, beginning at page 3. 249 Fed. 785. "Our general conclusion", the opinion states, "is that the lands were not, in 1903–4, known to be valuable for their mineral. The conditions were such only as to suggest the probability that they contained some oil, at some depth, but nothing to point persuasively to its quality, extent, or value." R. VII–25.

Gilbert, Circuit Judge, dissented.

From the decree of the Circuit Court of Appeals, entered on May 6, 1918, reversing the District Court with directions to dismiss the bill, the Government appealed.

The selection lists and accompanying nonmineral affidavits of the railroad land agent.

The official survey covering the lands in suit was filed in the Local Land Office on May 16, 1903 (R. VI–3761), and the Railroad Company filed its first selection list of these lands in the local Land Office on November 14, 1903. R. VI–3752. This selection list was accompanied by two affidavits of Chas. W. Eberlein, acting land agent of the Railroad Company, dated November 7, 1903. In one, Eberlein swore: "*That the said lands are vacant, unappropriated, and are not interdicted mineral or reserve lands, and are of the character contemplated by the grant.*" R.VI–3829. In the other, he swore: "*That he has caused the lands selected in said Company's list No. 89 to be carefully examined by the agents and employees of said company as to their mineral or agricultural character, and that to the best of his knowledge and belief, none of the lands returned in said list are mineral lands.*" R. VI–3832.

The latter affidavit followed the language of the regulation of the Secretary of the Interior which had been promulgated on July 9, 1894, in reference to railroad selections, as follows:

> Where the lands selected by the company are within a mineral belt, or proximate to any mining claim, the railroad company will be required to file with the local land officers an affidavit, by the land agent of the company, which affidavit shall be attached to said list when returned, setting forth in substance that he has caused the lands mentioned to be carefully examined by the agents and employees of the company, as to their mineral or agricultural character, and that, to the best of his

knowledge and belief, none of the lands returned in said list are mineral lands. 19 L. D. 21.

This selection list was rejected on November 17, 1903, by the local Land Office because the lands selected were situated in territory which had been "suspended from disposition" by the General Land Office by an order dated February 28, 1900. R. VI–3756.

The Railroad Company filed its notice of appeal from the order of rejection on December 11, 1903 (R. VI–3865), and on the same date the local Land Office forwarded the papers to the General Land Office (R. VI–3767), but the appeal was not prosecuted.

On February 11, 1904, the lands were "relieved from suspension" (R. III–1555) and the General Land Office advised the local Land Office that the application to select might be granted then if no other objection existed, and list No. 89 was returned to the local Land Office for appropriate action and the local Land Office accepted the list. R. VI–3835.

On June 20, 1904, Eberlein made an additional affidavit, which was filed in the General Land Office July 20, 1904, and which was similar to the second one above referred to filed November 14, 1903. R. III–1572.

On the 4th of August, 1904, the General Land Office, having found that there were errors in the assignment of the base lands, returned the old selection list No. 89 to the local Land Office with directions to "return the same to the company in order

that a new list may be filed, properly describing the lands," and the local Land Office, on August 10, 1904, communicated this ruling to the railroad (R. VI–3778–9), and on September 6, 1904, a new application, or selection list, was filed by the railroad in the local Land Office for the same lands but containing correct base lands. R. VI–3771–2.

This list was accompanied by affidavits of Eberlein, dated August 31, 1904, in the identical language of the two affidavits above referred to dated November 7, 1903, which accompanied the first selection list. R. VI–3847–51.

This selection list was accepted by the local Land Office on September 12, 1904, and forwarded to the General Land Office, and upon this selection list patent No. 135, for the lands in suit was issued on December 12, 1904.

The record is clear that the patent was issued upon the selection list filed on September 6, 1904, and not upon that filed in November, 1903, for the reason that the description of the lands in the patent is identical with the description in the list of September 6, 1904, but differs from that in the list of November 14, 1903 (R. VI–3775–6), and E. C. Finney, of the General Land Office, who handled this matter, so testified saying that "under the practice of the General Land Office, . . . the selection would be only effective from the time that a proper base was assigned for the tract selected as indemnity." R. III–1588–9. "In practice and legal effect the

selection becomes a valid selection only from the time that a proper base is submitted." R. III–1594.

ASSIGNMENT OF ERRORS.

The Government's assignment of errors is as follows:

1. Error in finding and deciding, contrary to the facts set forth in the bill of complaint and established by the evidence, that the lands embraced in the patent dated December 12, 1904, from the United States to the Southern Pacific Railroad Company, were not mineral lands excluded from the operation of the grant made by the Act of Congress approved July 27, 1866, 14 Stat. 292, and joint resolution No. 87, approved June 28, 1870, 16 Stat. 382, under which said patent was issued.

2. Error in not finding and deciding, as set forth in the bill of complaint and established by the evidence, that the patent dated December 12, 1904, from the United States to the Southern Pacific Railroad Company, was procured through fraud of the Railroad Company, in that said Company falsely represented to the Land Department of the United States that the lands embraced in said patent were nonmineral and of the character granted by the Act of Congress approved July 27, 1866, 14 Stat. 292, and joint resolution No. 87, approved June 28, 1870, 16 Stat. 382, under which said patent was issued.

3. Error in reversing the decree of the District Court of the United States for the Southern District

of California, entered August 9, 1915, with directions to dismiss the bill of complaint. R. VII–28.

ARGUMENT.

I.

IN A SUIT TO ANNUL A PATENT AS FRAUDULENTLY COVERING MINERAL LANDS, BELIEF AS TO MINERAL CHARACTER IS ESTABLISHED BY PROOF THAT THE KNOWN CONDITIONS AT THE TIME OF THE PROCEEDINGS WHICH RESULTED IN THE PATENT WERE PLAINLY SUCH AS TO ENGENDER THE BELIEF THAT THE LANDS CONTAINED MINERAL DEPOSITS OF SUCH QUALITY AND IN SUCH QUANTITY AS WOULD RENDER THEIR EXTRACTION PROFITABLE AND JUSTIFY EXPENDITURES TO THAT END, AND THIS RULE APPLIES TO OIL LANDS.

The ultimate question for decision is whether the Railroad Company believed, contrary to its affidavits, that the lands were valuable for oil at the time of the proceedings which resulted in the patent. Involved in this, but apart from direct evidence of such belief by responsible agents of the Company, is the preliminary question whether the known conditions at that time were plainly sufficient to engender such belief.

In *Diamond Coal Co.* v. *United States,* 233 U. S. 236, 239, which was a suit to annul homestead patents procured by fraudulent representations that the lands were non-mineral, the Court held:

> To justify the annulment of a homestead patent as wrongfully covering mineral land, it must appear that at the time of the proceed-

ings which resulted in the patent the land was known to be valuable for mineral; that is to say, it must appear that the known conditions at the time of those proceedings were plainly such as to engender the belief that the land contained mineral deposits of such quality and in such quantity as would render their extraction profitable and justify expenditures to that end. If at that time the land was not thus known to be valuable for mineral, subsequent discoveries will not affect the patent. The inquiry must be directed to the situation at that time, as were the applicant's proofs and the findings of the land officers. If the proofs were not false then, they can not be condemned nor the good faith of the applicant impugned by reason of any subsequent change in the conditions. p. 239.

An exposure to the eye of coal upon the particular lands was not essential to give them a then present value for coal mining. p. 248.

There is no fixed rule that lands become valuable for coal only through its actual discovery within their boundaries. On the contrary, they may, and often do, become so through adjacent disclosures and other surrounding or external conditions. p. 249.

The case of *Colorado Coal & Iron Co.* v. *United States*, 123 U. S. 307, relied upon by the coal company, is essentially different from this in that there the court was dealing with a statute excepting from entry lands on which there were "mines" at the time, a matter

particularly noticed in the opinion (p. 328), while here the exception is of "mineral lands," and "lands valuable for minerals." p. 249.

The defendants contend that this principle is not applicable because the Court was dealing with coal lands, basing this contention upon the concluding paragraph of the opinion in which it is said:

> Neither are we considering other minerals whose mode of deposition and situation in the earth are so irregular or otherwise unlike coal as to require that they be dealt with along other lines. p. 249.

The Government contends that the evidence in this case shows that oil in its mode of deposition and situation in the earth is so like coal that the two minerals must be dealt with along the same lines.

Judge Bean held (R. I–77):

> Oil like coal occurs in stratified forms of deposit or rather migrates into and permeates stratified deposits and follows them persistently and continuously unless interrupted by some intrusion to the end. Lands therefore may and often do become valuable for oil through adjacent disclosures and other surrounding conditions, although there has been no actual discovery within their boundaries.

And he accordingly held that the test for "coal lands" laid down in the *Diamond Coal* case was applicable to "oil lands."

The Court of Appeals held that the *Diamond Coal* case was but "remotely analogous" (R. VII–22), since coal is different from oil in that "a coal bed is fixed and unchangeable" whereas oil is "mobile" (p. 19), that a "discovery" in the sense of the general mining laws within the boundaries of the land was necessary to establish its mineral character (p. 17), and that the applicable decisions[1] are those which hold that a vein or lode is not shown to be "known to exist within the boundaries of a placer claim" (R. S. § 2333) by evidence of indications outside the boundaries sufficient to establish *belief* of the fact (pp. 17–19) — cases which were relied on by the Coal Company in the *Diamond Coal* case, as the brief in that case shows (p. 36), but which were there held inapplicable to a statute excluding "mineral land" from agricultural entry.

If the Court had intended to restrict the principle to coal lands, it could easily have done so by simply using the word "coal" instead of "mineral." By using this language, it clearly meant, we submit, that the principle was not restricted to the determination of coal lands but applied to other minerals unless within the terms of exclusion in the concluding paragraph of the opinion above quoted.

There is, of course, no mineral whose mode of deposition and situation in the earth is just like coal;

[1] *Iron Silver Mining Co.* v. *Reynolds*, 124 U. S. 374; *United States* v. *Silver Mining Co.*, 128 U. S. 673; *Sullivan* v. *Iron Silver Mining Co.*, 143 U. S. 431

but stratified forms of minerals such as coal and oil differ essentially from lode or placer deposits and Mr. Justice Van Devanter no doubt was referring to deposits of the precious metals. The evidence establishes the fact that next to coal mining, the mining of petroleum based solely upon geologic evidence is the surest. And in the opinion of the Court of Appeals in the *Diamond Coal* case (191 Fed. 786,796), concurred in by Mr. Justice Van Devanter, Judge Hook said:

> Veins of precious metals are notoriously more uncertain in extent, continuity, and uniformity than deposits of coal.

(*a*) *The evidence shows conclusively the striking similarity of coal and oil in their mode of deposition and situation in the earth.*

A. C. Veatch in 1897 "was assistant in charge of one section of the Indiana University Geological Survey, working in Indiana." In 1898 he was a member of the Cornell University Geological Survey of the Tertiary, working in the coastal plain from New Jersey to Mississippi. 1898 to 1900 he was assistant State Geologist of Louisiana. 1900 and 1901 he was assistant in charge of areal and stratigraphic geology in Cornell University summer school of field geology. 1901 and 1902 he was geologist of Houston Oil Company, working in the Louisiana and Texas oil fields. 1902 he was appointed professor of geology in the State University of Louisiana,

and State Geologist which position he resigned to accept a position in the United States Geological Survey. He was with the United States Geological Survey from December, 1902, until 1910. 1910 and 1911 he was engaged in work in the Trinidad and Venezuela oil fields. Since his resignation from the Geological Survey he has been engaged in work as consulting geologist. While in the United States Geological Survey he was chairman of the coal land and the oil land classification boards. In 1907 President Roosevelt appointed him a special commissioner to investigate the mining laws of Australia and New Zealand. R. II–687, 688.

Mr. Veatch was the expert for the government referred to in the *Diamond Coal* case and whose geological deductions and opinions the Court adopted.

Mr. Veatch testified that he had personally examined the Elk Hills and in reference to the occurrence of oil he testified:

> Where minerals occur in stratified rocks, it is frequently possible to determine with exactness their extent and value and other factors important in their appraisement and development. That is the method which has been employed for many years by practical men in such subjects. Stratified rocks are laid down in relatively regular layers, for the most part, beneath the sea, and are to be contrasted with other rocks formed by igneous intrusions or volcanic outpourings or which have been so altered by metamorphic action as to lose

> their former characteristics. The individual layers of stratified deposits can be traced for many miles, and in many cases hundreds of miles, showing to a great extent the same characteristics, and it is on this regularity or irregularity as shown by the outcrop that practical men base their conclusions and have spent great sums of money in developing minerals of the kind which occur in stratified deposits. R. II–696.

Among the most important substances which occur in stratified deposits "are coal, water, oil and phosphate. . . . They differ markedly from most deposits of ores, and entirely from veins or lodes, which are of very irregular character." R. II–697.

It is on the exposures at the surface caused by uplifting or folding or erosion that the conclusion is based.

> The beds, after deposition, are folded up and eroded, and the effect of this erosion is to enable the geologist to examine the character of the rocks as fully and as carefully as he could in an enormous trench dug through the surface of the earth. Extending for many miles it forms a much more sound basis for judgment than a single development. R. II–697.

Asked if he could draw an analogy between stratified beds of oil and coal, he answered:

> They both occur in stratified deposits and are subject to much the same laws; and you

can—in the case of a coal deposit, where the erosion has entirely removed the strata around a given area, you have the area arising as a hill above the surrounding region. If, in such a case, you find the coal outcropping on one side of the hill and follow that coal bed around the hill, as you can, by natural exposures, and find it goes entirely around the hill, you know absolutely that the coal underlies the hill and are justified in buying that land as coal land in the absence of any development. In a similar way, if you find a coal bed exposed on the side of a valley, dipping beneath the valley, you know that the valley is underlaid with coal, and by the change of slope of the beds you can calculate the depth of that coal bed in that area which is underlaid with coal. In the case of oil or water you can follow the sand bed or other porous bed suitable for containing them, in exactly the same way as you do the coal bed. You can determine the existence of the layer of coal, and in a similar way you can determine the existence of that porous strata in the same way you can calculate the thickness or the depth of that porous bed under different portions of the territory. You follow the same method. The presence of oil or water in the porous bed can be indicated either by springs along the outcrop, in the case of water, or seepages in the case of oil, or, failing those, their presence may be demonstrated by a well or a group of wells. Such wells or group of wells, taken in

> connection, or such seepages taken in connection, with the determinal persistence of these beds and the geological structure, warrant the development of territory in which you have not drilled. It shows the presence of the substance desired under the lands. R. II–698–9.

A competent geologist, he testified, may determine by such observations the extent of an area containing deposits of coal, phosphate, oil or water, and that it is frequently done. R. II–699.

After reciting the determination by the Geological Survey of underground water basins in advance of drilling, extending from New Jersey to Mexico, and being asked in what way oil differs from water in such determination, he said:

> It differs from water in this, that where water and oil are both present in the porous bed, the water tends to accumulate in the lower portions of the strata or synclines, forcing the oil into the higher portions of the folds or anticlines of the strata; and it is for this reason that it is particularly important, in a new field, to determine the position of the anticlinal features. Water and oil do not always occur in the same porous strata. R. II–700.

Being asked whether the oil value of lands not yet drilled may be determined otherwise than by the drill, he answered:

> I think they can, in the same way that the coal can be demonstrated by the outcrops.

> It is the same principle in every way. It has frequently been demonstrated in advance of the drilling. R. II–701.

Mr. Veatch testified that from a consideration of the conditions existing in 1904, he concluded the Elk Hills are oil lands.

He testified that—

> there are a series of porous beds and associated clays which are well designed, on the one hand, to afford a reservoir for the oil, and on the other hand, to prevent undue leakage, which may be traced for many miles along the flank of the Temblor Range, the east flank, in this case, being the important one for this question. In that area there are seepages which have been there from the beginning, which extend for a distance of over fifteen miles, showing the persistence of the oil saturation in these porous layers. R. II–701.
>
> They [those beds] are exposed on the east flank of the Temblor Range and may be followed there for a great many miles and the porous character readily determined. Now, taking this distance of seepages of fifteen miles, and which is, I may say, greater than that, but that is an area that is adjacent to this that is easily shown, it shows impregnation of oil strata extending at least seven and a half miles from a given center. Applying this distance of seven and a half miles from the outcrop, it includes Buena Vista Hills and the

Elk Hills, and the only question which could remain regarding the oil value of the territory outlined in this way would be with respect to the synclinal areas, the valley lying between the Elk Hills and Buena Vista and McKittrick Hills and the valley lying between the Buena Vista Hills and the outcrop along the front of the range. Both the Buena Vista Hills and the Elk Hills fall within the proven area from geological determinations. R. II–701–2.

They [those beds] dip, in a general way, towards the San Joaquin Valley. The general slope is interrupted by folds which are, roughly, parallel to the main fold of the axis of the Temblor Range, and, forming these folds, rise as groups of hills above the surrounding country, and their structural character is evident even to the most casual observer. . . . They are elongated domes of ideal structure for oil accumulation. R. II–702–3.

If any corroboration were needed with regard to the line of evidence outlined, it is found in the seepages in the Buena Vista Hills and in the Elk Hills; and any questions which might arise with regard to the persistence of the oil, as shown by these seepages, are conclusively set aside by a great series of wells which had been sunk prior to 1904 down the dip from these seepages, and connecting, showing that the seepages represented oil in commercial quantities. R. II–703.

On cross-examination, Mr. Veatch being asked to say in short form what he used as the basis of his conclusion that the Elk Hills are oil lands, answered:

> Along the east flank of the Temblor Range there is a series of porous beds exposed, which can be traced for many miles readily. Along this outcrop or near it where there has been a slight faulting, there are seepages of oil. These seepages extend from below Sunset to North of McKittrick, showing a persistence of the oil impregnation in those porous beds. These porous beds dip to the eastward or northeastward, toward the San Joaquin Valley, and are interrupted by a number of folds. That is, the gentle slope is interrupted by a number of folds, these folds being of ideal character for oil accumulation. One of these folds is the Elk Hills. It is, broadly speaking, an elongated dome, and from the persistence of the oil along the outcrop as shown by those seepages, and that showing also corroborated by the great number of wells that have been sunk down the dip from this outcrop prior to 1904, indicates to me that the Elk Hills is very good oil land. R. II–803–4.
>
> Q. And after you had made a careful and detailed examination of the surface, you were able to say in your own mind, were you, that you knew absolutely that underneath that dome was oil, in paying quantities?
>
> A. No; not at all.
>
> Q. Then what conclusion did you reach?

A. I reached the conclusion that that was to me valuable oil land, that is, it had a commercial value as oil property.

Q. What do you mean by that?

A. Because of the very great probability of oil occurring there. It is not possible to say certainly that there is oil there, that is, there is oil in commercial quantities. If there is oil in this region, it certainly occurs in that locality, and that is a place where I would certainly advise drilling and where a man would be amply justified in spending money in drilling a well. R. II–743.

Asked as to a coal outcropping around the side of a valley, Mr. Veatch testified:

> I could not guarantee to any man that there would be commercial coal there, but I would say that the possibilities of developing coal were so great that it has a value expressed in dollars as coal land. I would expect that man to make a commercial success. I would advise him on that basis the same as I would on oil land. I would not guarantee that the oil land was a commercial proposition, but I would say that I believed that it was and that it would justify him in spending his money on the coal field likewise. R. II–793–4.

Mr. Veatch testified further than he was confident that he would have formed the opinion that the Elk Hills were valuable oil territory "if I had examined that territory in 1903 or '04, and I may add that any competent geologist would have reached the same conclusion at that time." R. II–819.

He further testified "there is no doubt that it is oil land" (R. II–822), and "It is conclusive in this: That I would advise a person to acquire that for oil land. I would advise him to drill it as oil land. I would not guarantee that he would get a commercial well. I would not guarantee in a case of coal that it was a commercial proposition from the outcrop." R. II–820. "Just as in a coal mine you would have to mine your coal before you knew it was commercial." R. II–823.

> The value of oil land—oil land has value which has no well and which has not been proven in the sense of proving it by a well. But it is a common commercial transaction to sell land and pay an oil-land price for it where there is not a single well on the land and which is not proven in that way.
>
> Q. Sold for speculative purposes?
>
> A. Sold as a business proposition. R. II–825.

Asked what he meant by the term value, he answered:

> A commercial value as an oil proposition. . . .
>
> I used it as having a value as oil land—having a commercial value as an oil property. R. II–826.
>
> Lode mining and oil mining are entirely different things. There is a much greater certainty in a petroleum proposition than there is in any lode mining, as Dr. Branner said, I agree with him perfectly where he regards coal mining and oil mining the most

certain forms of mining. As I explained the other day, I do not regard any business proposition as a certainty. R. II–827.

The evidence in the case of lode claims is entirely different from the evidence in a case of economic minerals occurring in stratified deposits. R. II–885.

Asked further on cross-examination as to the difference between coal and oil, he answered:

My experience has been, as testified, specially in stratified deposits. We are dealing with oil which occurs in a stratified deposit; coal occurs in stratified deposits; and the two things are analogous in a great many ways.

Q. But they are not analogous in this, that coal stays where it is formed and oil does not? Is not that the difference?

A. That is the difference. R. II–907.

Q. Mr. Veatch, in your opinion can the existence of oil be determined without drilling?

A. It cannot be proven in commercial quantities without drilling.

Q. Can its occurrence be determined?

A. I think it can to a reasonable degree. The matter of opinion is based upon experience and on the stratigraphic condition. The geology of the country shows, within the reasonable probability of success of a business venture, that oil occurs there [Elk Hills]. If that were not true there would be no occasion whatever for employing geologists, as the Southern Pacific Company does and a great many other Companies do. R. II–902–3.

I think there is an element of risk, as there is in all business ventures. I would not guarantee that there was oil there, but I would say that there was such a reasonable probability of it occurring there [Elk Hills] that it would justify expenditure. I would certainly advise a company to drill there and would be sure in my belief that they would get a large quantity of oil. If I didn't believe that from the geological evidence I would not advise them to drill. R. II–903.

I have stated repeatedly that no reputable geologist would guarantee the presence of oil in any place. He would simply say the conditions are such as to warrant development, and those conditions in the Elk Hills are ideal. R. II–933. I stated that I would not guarantee a man to find oil. No reputable geologist would. But the conditions were such as would justify him in spending money in acquiring the land and developing a well; that it is certainly oil land. R. II–984. The matter cannot be absolutely determined, but you can determine the degree of probability and that degree of probability is infinitely greater than it can occur in any lode mining. R. II–934.

Coal and oil occur in stratified deposits and are analogous in much the same way. R. II–932.

On re-direct examination, Mr. Veatch testified:

I think the depth [of oil] can be approximated, but it is such an approximation that it is not an exact statement.

Q. Now, there is one method of determining the extent and persistence of imbedded strati-

fications containing oil, and you mentioned only one of the many ways for determination of such, where minerals occur in stratified deposits. You were asked by counsel if you were not the pioneer in the advancement of that simple process of determination, which Mr. Lewers was kind enough to characterize as the horizon theory. Do you know whether that method has been applied in any other kind of lands in other stratifications, for example, in coal measures?

A. Yes; extensively used by geologists in classification of coal lands. R. II–936–7.

Q. Mr. Veatch, do you recognize any analogy between the determination upon geologic evidence of the extent and persistence of coal measures and that of the persistence and extent of areas carrying oil?

A. Yes; in this respect: That you determine the persistence of the porous bed which contains the oil in an analogous way. R. II–937.

Dr. J. C. Branner was educated as a geologist at Cornell University. In 1874 went on a geological survey of Brazil and remained there eight years. Then worked for two years in the anthracite coal region as assistant on the Pennsylvania Geological Survey. Was for several years professor of geology in the University of Indiana. From 1887 to 1892 was State geologist of Arkansas. In 1892 became professor of geology in Stanford University and has been there ever since. He testified that almost ever since he went to California in 1892 he had worked on the geology of the oil fields of California. Visited

the McKittrick field first in 1900 and had examined the lands in suit and adjoining oil territory on various occasions. R. II–1000–2.

After examining the physical condition of the eastern flank of the Coast range and the Elk Hills, and noting the many oil wells in and around McKittrick, the evidence of natural waste of oil and the oil seepages, he testified the geological structure of the Elk Hills was perfectly clear and simple. He said:

> My opinion was that the Elk Hills was the most promising area for petroleum in that region in the vicinity of McKittrick. I formed the opinion that it was oil-bearing. R. II-1003.
>
> That opinion was based on my general knowledge of the behavior of petroleum in the rocks; on my observation of the general geologic structure of the entire area that I went over. R. II–1003.
>
> That opinion was confirmed to a considerable extent by the developments that had taken place there recently, but everything seemed to fit together; that is, the geological structure, the development of the wells, the occurrence of the oil seepages, and everything, pointed to the Elk Hills as a promising field for the finding of petroleum. R. II–1003.
>
> I should say that if any competent geologist, observing the natural waste of oil about McKittrick and the stage of development in 1900 or a year or two subsequent, and visiting the Elk Hills and making some examination of the structural formation, failed to form an

opinion that the Elk Hills were oil in character and that there was an oil-bearing zone underneath those hills, he did not understand his business. R. II–1004.

I am familiar with the methods of quartz and gold mining and with petroleum mining, and should consider that, so far as the metal mine was concerned, the finding of traces of gold or silver on the surface of a ledge or lode did not amount to anything more than the merest suggestion, whereas in the case of the Elk Hills, I consider that the evidence is worth going ahead without any other evidences than the geology itself and disregarding any drilling or actual development in the hills themselves by man, and that evidence existed as early as 1900. R. II–1023.

There is no such uncertainty in petroleum mining as there is in quartz mining. I should say that next to coal mining, the mining of petroleum, based solely upon geologic evidences, was the surest kind of mining I know anything about. R. II–1024.

I think practical men invest money in oil territory in advance of drilling on the advice of geologists, and I regard that practice as fully justified by the results. R. II–1006.

The oil in the California fields originally developed from a series of beds that were known in geology as the Monterey shales—a series of rocks made up of the skeletons of diatoms that have accumulated in great quantities, especially about the southern end of the San Joaquin Valley. R. II–1008.

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The general geology of the Elk Hills would lead me to infer that Monterey shale was under there and in great thickness. R. II–1020.

The Elk Hills are situated right about in front of the thick portions of these Monterey shales. The thickest parts, beginning up here some way north of McKittrick, come—oh, perhaps twenty miles or more, or so, northwest of McKittrick, and from there down to the vicinity of Maricopa, is the very area in which those shales have those great thicknesses, and these Buena Vista Hills and the Elk Hills lie right off towards the east, northeast, of those hills.

I would not expect the shales under the Elk Hills to be so faulted as to influence the disadvantageous accumulation of oil there. R. II–1022–3.

From my examination and knowledge of the neighboring regions, I have no reason whatever to believe that the oil-bearing sands in the Elk Hills are thin, hard or pinched out. R. II–1023.

As to the depth of oil sands, Dr. Branner testified:

There are only two ways in which that can be determined. One would be to work out the geology with great care and detail over the region—not only in the Elk Hills themselves, but in the surrounding country—to find in what horizon the oil accumulates, and then by fitting one's evidence together and studying it one might come to the conclusion in regard to the depth at which the well would reach the oil-bearing bed. The only other way would

simply be to put a well down and test it. R. II–1020.

The general structure of the Elk Hills is so favorable to the accumulation of oil in that region that if they had gone to five thousand feet and not found the oil, I should still advise a company to not give up hope of finding it. R. II–1008.

If the wells were put down without reference to the geologic structure, they might go to an enormous depth without getting oil, and yet, they may move off to one side and put down a well within a thousand or two thousand feet and get entirely different results. R. II–1008.

I should have advised anybody who might have employed me to report on those propositions, to buy the lands with a view to developing them as petroleum lands, from the surface indications and my knowledge of the surrounding conditions and of the oil formations in general. R. II–1007–8.

Captain Frank Barrett testified that he was 67 years old and had been in the oil business practically all his life in Pennsylvania, West Virginia, Kentucky, Ohio, Texas, California and Indiana. He brought in the first paying well in the Coalinga field. R. I–478.

He testified that he had also had experience in lode or placer and gold mining and he found that a good deal more uncertain than the oil business. That his experience extended back nearly to the time the first oil well was sunk in this country. He said that a practical oil driller could not tell where oil is as well as a scientific geologist, because a

practical driller may not know exactly where to locate his well, while a man who understands the formations and the topography of the country will locate the well and turn it over to the driller. R. I–485–6.

That he visited the Elk Hills in 1899 at the request of a gentleman named Hilbish who employed him at $100 per day and expenses to examine township 30–23 and see if it was good oil-bearing territory (R. I–479–482), and that he made a report in writing recommending the entire south half of 30–23 as good oil-bearing territory and that he has had no reason since that time to change his opinion. R. I–481–4. That was before there was any excitement at all at Bakersfield. R. I–484.

He knew of the asphaltum outcroppings or oil springs and seepages around McKittrick. He observed a pronounced anticline in the Elk Hills. The characteristics of the formations of the Elk Hills are not at all dissimilar to the formation around McKittrick. R. I–480.

He found several seepages of oil in the Elk Hills. Took some of the outcroppings home with him and applied the chloroform test and got traces of oil. R. I–479.

F. O. Martin, at present mineral inspector of the General Land Office, testified that he had been engaged in the study of geological problems both practically and theoretically since 1894. Since 1910 has been engaged almost continuously in the Cali-

fornia oil fields. Had made several examinations of the lands in suit and caused to be prepared a map of township 30–23 and adjoining lands. R. I–609–610.

That he had considerable experience in the geology of oil and had had experience in quartz mining; that oil mining is more certain than lode mining. R. I–617.

> On account of the oil seeps existing to the west of the lands involved in this suit and on account of the favorable structural conditions of the Elk Hills, it was clear to me from the conditions existing in 1904 that the chances of finding oil in the Elk Hills were much more favorable than the chances of finding gold in quartz prospects, judging by the outcrops, because the conditions are so dissimilar between the accumulations of oil and the appearance of valuable minerals. The conditions favor oil. R. I–619.
>
> From the evidence existing in 1904, an ordinarily prudent man would have been justified in the expenditure of money in the Elk Hills with a reasonable expectation of ultimately developing a paying oil property. R. I–617.

John R. Scupham was employed by the railroad in 1865 as assistant engineer and remained as such until 1874 when he was recalled from the field and used as consulting engineer by the directors, Leland Stanford, Charles Crocker, C. P. Huntington, and others. R. I–584–5. He examined and reported on many mineral properties, and upon his advice, various coal

properties were acquired. He reported on the artesian well prospects in the San Joaquin Valley, and brought in the first artesian well in that valley. He has been in the engineering business continuously since that time, including the examination of lands for their mineral value. R. I–586.

In 1887 A. N. Towne, General Manager of the Railroad, sent him to examine the asphalt deposits west of Bakersfield. On that trip he examined the Elk Hills and reported to Towne that they were valuable oil lands. He further testified:

> I said to Mr. Towne and Mr. Crocker that the oil did extend under there and it probably would be very important. I thought I knew, from the manifestations which I observed on the surface, that it did extend under there in paying quantities but I didn't know it mathematically. The surface seepage indicated most positively that there was oil in that portion in the vicinity of the seepage. It was a fresh seepage. Such indication could not be found in an exhausted oil sand. * * * The other manifestations were the heavily bedded shale and sandstone in succession, and the tight clays and other manifestations of oil formations. R. I–597.

Mr. Scupham testified that he had had experience in determining the depth of water in artesian basins and the depth of coal in coal lands and that "there is a relation between the means by which you determine the depth of artesian basins and coal measures and that of oil measures or oil sands. The stratifi-

cation of a particular section would govern in each case and that is why I say they are analogous." R. I–599.

J. A. Taff was a witness for the Railroad Company and one of its geologists. He testified: "In making your geological examinations you determine the successions of the beds and the extent of those beds in which the oil is likely to occur, in the same way, or a similar way, that you examine lands in which coal occurs to determine the extent of the coal bed" (R. V–2768), and he admitted that "there is a certain relation between the occurrence of coal and the occurrence of oil" (R. V–2766), but contended that the rules to be applied in determining the presence or absence of oil in commercial quantities are only to a limited extent applicable in the determination of the presence or absence of coal in commercial quantities. He admitted that he, as a geologist, "in other territory and under other conditions might recommend the investment and expenditure of money with less evidence than the anticlinal structure which we have in the Elk Hills, and the fact that the well was sunk and brought in at the rate of 350 barrels per day until it was stopped by people who were operating in other territory." R. V–2875.

Thus it is seen that the evidence is convincing to sustain Judge Bean's ruling that oil in its mode of deposition and situation in the earth is so analogous to coal as to be dealt with along similar lines, and as Dr. Branner, Mr. Veatch and others said "next to coal mining, the mining of petroleum based

solely upon geologic evidence is the surest kind of mining."

It is true that the evidence on the part of the geologists in the employment of the railroad was to the effect that oil sands are not always persistent, that they may be interrupted by some intrusion or obstruction and may be "thin" or "pinched out." The Government's experts conceded that there may be the possibility of such faults, but the evidence shows that in the case of coal veins similar faults may and do occur and in the *Diamond Coal* case, the identical contention was made there that is made here.

> Special emphasis [says this court], was laid upon the uncertainties incident to coal mining in the cretaceous areas of the west, by reason of the occurrence of faults, wants, thinning and the like and this, it was said, required that actual exposure of coal within the land by an outcropping at the surface, or an excavation, be accepted as the true and only test. But even such a test was largely discredited by statements that "a good outcrop at the surface may represent a want below, or a want at the surface may represent a coal below," and that in following a good discovery a fault or thinning, as well as a want, may be encountered at any moment. P. 246.

(*b*) *The defendants' contention is unsound that the true and only test by which to determine whether lands are oil lands is the drill and the actual production of oil in paying quantities upon the lands.*

The defendants throughout their argument and their briefs in the lower courts have reiterated the contention that the Government must fail in that it has not proven that the Railroad Company knew that the lands contained oil in paying quantities; that the Government has not proven the oil-bearing character of the land in the way their expert, Anderson, said it must be proven—not by known geological conditions—but by the actual production of oil in paying quantities, R. IV–2549.

The Government submits with great confidence that this contention is unsound; and to justify annulment of a railroad patent as wrongfully covering mineral land, it is sufficient if it appears that the known conditions at the time of the proceedings which resulted in the patent, were plainly such as to engender the belief that the land contained petroleum deposits of such quality and in such quantity as would render their extraction profitable and justify expenditure to that end, or when the known surroundings are such that practical oil men would invest in particular lands for oil mining, or advise others to do so, those lands are oil lands and excluded from entry under a railroad grant as agricultural lands, even though oil has not been actually disclosed within their limits.

If the direction and inclination of the dip and other conditions in 1903 and 1904 afforded reasonable ground for believing that the lands in controversy could be mined profitably, then they were not subject

to entry as agricultural lands. An exposure to the eye of oil upon the particular lands was not essential to give them a then present value for oil mining.

If the outcrop, the disclosures in the vicinity and the geological formation pointed with convincing force to a workable bed of merchantable oil, penetrating these lands and these conditions were open to common observation and were such as would appeal to practical men and be relied upon by them in making investments for oil mining, then these lands would be classed as oil lands and excluded from entry as agricultural lands.

The foregoing propositions are taken bodily from the opinion in the *Diamond Coal* case, merely changing the word "coal" to "oil" wherever it occurs.

That opinion further stated:

> There is no fixed rule that lands become valuable for coal only through its actual discovery within their boundaries. On the contrary, they may, and often do, become so through adjacent disclosures and other surrounding or external conditions; and when that question arises in such cases as this, any evidence logically relevant to the issue is admissible, due regard being had to the time to which it must relate. p. 249.

To the same effect is Judge Hook's opinion in the Circuit Court of Appeals (191 Fed. 786). He concludes his opinion with these words:

> The lands were of little agricultural value, but they had a much greater value because

> of the belief in their coal contents founded on evidences upon which men in the business were accustomed to rely. We think the lands were coal lands within the laws of the United States. p. 796.

So in the case at bar the Government was not required to show to an absolute certainty by actual discovery and production of oil on the lands, but it was sufficient to show known conditions which justified the belief that the lands could be mined profitably—such conditions or evidences as men in the oil business were accustomed to rely upon in investing in oil lands. Any evidence logically relevant to the issue is admissible and it is not restricted to the drilling of wells on the lands, as contended by the defendants as the only way of showing oil lands. Such a narrow construction would prevent the Acts of Congress from having any application to the valuable oil deposits of the west outside the very land on which wells have been drilled. Such a view was condemned by Judge Hook in replying to the contention of the Coal Company that the uncertainties of coal mining are so great that in the absence of actual exploration it can not be told that there is coal in any particular piece of land in quantity or quality to justify mining. Judge Hook said:

> Yet, if the acts of Congress are to have application to the extensive coal deposits in the western mountainous regions outside the very land in which they outcrop and

> without exploration by the Government by diamond drill at excessive, if not prohibitive cost, there must be a more liberal view than that advanced in this case by defendant. p. 795.

The defendants' contention that the Railroad Company is entitled to all oil lands except those upon which wells have been drilled prior to patent and oil produced for a sufficient period of time to demonstrate that oil exists in paying quantities, is the same contention made by the Coal Company in the *Diamond Coal* case.

> The experts for the Coal Company [said the Court] proceeded largely but not entirely upon the theory that lands can not be regarded as coal lands unless coal in quantity and of quality to render its extraction profitable is actually disclosed within their boundaries. * * * Special emphasis was laid upon the uncertainties incident to coal mining in the cretaceous areas of the West by reason of the occurrence of faults, wants, thinning, and the like. p. 246.
>
> The expert for the Government proceeded upon the theory that when the known surroundings are such that practical coal men would invest in particular lands for coal mining, or advise others to do so, those lands are to be deemed coal lands, even though coal has not as yet actually been disclosed within their limits. And having in mind the outcropping coal bed, the direction and inclination of its dip, the character of the rocks with which it

> was interstratified, the quality and thickness of the coal at the outcrop, the proximity of the lands to the outcrop, and the topographical and structural features of the vicinity, he gave it as his opinion that the coal bed extended into and through the lands in question and that practical coal men would regard the lands as valuable for coal and invest in them as such. He accordingly pronounced them coal lands within his acceptation of that term. p. 245.

The Court adopted the view of the Government's expert, saying:

> An exposure to the eye of coal upon the particular lands was not essential to give them a then present value for coal mining. . . . The outcrop, the disclosures in the vicinity, and the geological formation pointed with convincing force to a workable bed of merchantable coal extending under the valley and penetrating these lands. These conditions were open to common observation, and were such as would appeal to practical men and be relied upon by them in making investments for coal mining. p. 248.

The Court recognized the fact that the test laid down is not infallible as all mining has "its uncertainties and hazards," but it was the only practicable and workable rule.

The uncertainties of mining, whether of coal, oil or other minerals which are found in sedimentary formations, do not prevent the application of the principle that natural and visible geologic condi-

tions may determine the mineral character of the lands without actual exposure or drilling on the lands.

In cases of this kind, two propositions are established by the *Diamond Coal* case. First; if the known conditions were plainly such as to engender the belief that the lands could be mined profitably, then they were mineral lands, secondly; the known conditions to be considered are not confined to those upon the lands in question, but disclosures and conditions on adjacent lands may determine that the lands were mineral lands.

This doctrine has been long established in the Ninth Circuit. Judge Sawyer, in *Cowell* v. *Lammers*, 21 Fed. 200, 206, in deciding the meaning of mineral lands in a railroad grant, held:

> By the words "mineral lands" must be understood lands known to be such or which there is satisfactory reason to believe are such at the time of the grant or patent.

This is cited with approval in *Davis* v. *Weibbold*, 139 U. S. 507, and in *Cosmos Exploration Co.* v. *Oil Co.*, 104 Fed. 20, Judge Ross gave expression to the same doctrine. See also *Francoeur* v. *Newhouse*, 40 Fed. 618, 621.

The defendants' position is unsound in two important aspects; in that it assumes that there must be actual knowledge of the existence of oil in paying quantities and that this knowledge can only be acquired by the discovery of oil on the lands in

question resulting from the drilling of wells thereon. Their position goes to the extent of claiming that even though the Railroad Company had brought in a well prior to patent on one of the sections in suit, and the discovery of oil was such as to justify the Company in the further expenditure of time and labor in the development of the property, still the section would not be oil land and excluded from the granting act, unless the well was operated a sufficient length of time to demonstrate that it was a paying well.

This is not our construction of their position but as the court will see later in considering the subsequent development on a section adjoining the lands in suit, it was claimed below by the defendants that though a well was brought in on that section by the Associated Oil Company and produced hundreds of barrels of oil a day, yet as it was claimed it had not proven to be a paying well, therefore, the discovery showed that the land was not oil land. It was conceded by the defendants that the discovery was such as to entitle the Oil Company to a patent.

Under the mining statutes, there must be a discovery of mineral within the limits of the claim, to entitle one to a mineral patent. In *Waskey* v. *Hammer*, 223 U. S. 85, 90, it is held:

> The mining laws, Rev. Stat. §§ 2320 and 2329, make the discovery of mineral "within the limits of the claim" a prerequisite to the location of a claim, whether lode or placer, the purpose being to reward the discoverer and to prevent the location of land not found

to be mineral. A discovery without the limits of the claim, no matter what its proximity, does not suffice.

By section 2320, R. S., "no location of a mining claim shall be made until the discovery of the vein or lode within the limits of the claim located." By section 2329 "claims usually called 'placers,' including all forms of deposit, excepting veins of quartz or other rock in place, shall be subject to entry and patent, under like circumstances and conditions, and upon similar proceedings, as are provided for vein or lode claims." And by 29 Statutes at Large 526 (Act of February 11, 1897) "lands containing petroleum or other mineral oils, and chiefly valuable therefor" may be entered and patented "under the provisions of the laws relating to placer mining claims."

What is necessary to constitute a discovery of mineral is not prescribed by statute, but under the decisions construing the mining statutes above quoted, a finding of mineral in commercial or paying quantities is not necessary to constitute a discovery. The law is settled that the requirements of the law are met if there has been a finding of mineral within the limits of the claim and the evidence is of such a character that a person of ordinary prudence would be justified in expending his time and labor in the development of the property.

Judge Ross, in *Cascaden* v. *Bartolis*, 146 Fed. 739, 741, speaking for the Court of Appeals of the Ninth Circuit, in commenting on the instructions given in

that case in reference to the sufficiency of a mineral discovery, said:

> While the Court in one part of these instructions did state to the jury the correct rule, that it was essential to the validity of the location under which the plaintiffs claimed that the discovery of mineral thereon was such that "an ordinarily prudent man, not necessarily a miner, would be justified in expending his time and labor thereon in the development of the property," yet it also, at the same time and in the same connection, expressly and specifically instructed them that it was essential to a recovery by the plaintiffs that they should have proved with reasonable clearness that for the labor and capital expended in working the ground it would yield a reasonable profit, and that unless the jury so found, their verdict should be for the defendant. This latter specific declaration is not only not a correct statement of the law, but it is also in direct conflict with the correct rule elsewhere given in the instructions above set out.

In *Chrisman* v. *Miller*, 197 U. S. 313, 322, it was held:

> By the Land Department this rule has been laid down, *Castle* v. *Womble*, 19. L.D. 455, 457: "Where minerals have been found, and the evidence is of such a character that a person of ordinary prudence would be justified in the further expenditure of his labor and means, with a reasonable prospect of success, in developing a valuable mine, the requirements of the statute have been met."

In an application for a mineral patent there must be a discovery of mineral *within the limits of the claim* of such a character that a prudent man would be justified in expending his time and labor thereon in development of the property, while in a suit by the Government to cancel a patent for fraud, it is enough if the known conditions are plainly such as to engender the belief that the lands contained mineral deposits of such a character as to justify expenditures in extracting them.

In both cases, the common element is the justification of expenditures. In the one case, this justification must be based on a discovery of mineral within the limits of the claim. In the other case, it may arise entirely out of the known conditions on adjacent lands. In neither case is it necessary to demonstrate the commercial productivity of the lands.

We submit that the contention of the defendants that there must be a discovery of oil in paying quantities, upon land before it can be excluded from the granting act as "mineral land," is without support in reason or authority.

(c) *Congress nine years before the issuance of the patent in controversy recognized the soundness and practicability of determining by geological evidence, in advance of development upon the lands, whether they are oil lands.*

By an Act approved February 26, 1895, 28 Stat. 683, Congress provided for an examination and classification of the lands within the limits of the Northern

Pacific Railroad grant under the Act of July 2, 1864, 13 Stat. 365, with reference to their mineral character, and therein made a legislative declaration of what evidence is competent to determine the character of such lands. The grant of the Northern Pacific is exactly similar and in almost the same language as the grant to the Southern Pacific.

The provision in the Act of February 26, 1895, is as follows:

> Sec. 3. That all said lands shall be classified as mineral which by reason of valuable mineral deposits are open to exploration, occupation and purchase under the provisions of the United States mining laws, and the commissioners, in making the classification hereinafter provided for, shall take into consideration the mineral discovered or developed on or adjacent to such land, and the geological formation of all lands to be examined and classified, or the lands adjacent thereto, and the reasonable probabilities of such land containing valuable mineral deposits because of its said formation, location, or character. The classification herein provided for shall be by each legal subdivision, where the lands have been surveyed. If the lands examined are not surveyed, classification shall be made by tracts of such extent and designated by such natural or artificial boundaries to identify them as the Commissioners may determine. Where mining locations have been heretofore made or patents issued for mining ground in any section of land, this shall be taken as prima

facia evidence that the forty acre subdivision within which it is located is mineral land: *Provided*, That the word "mineral" where it occurs in this act, shall not be held to include iron or coal.

While the defendants now contend that the drilling of wells is the only test by which to determine the oil character of lands and deny the practicability of a resort to geological evidence, the record shows that the defendants, for several years before the patent in controversy was issued, were through their oil experts and geologists, by the use of geologic evidence alone, classifying certain of the lands as oil lands upon which there was no development and withdrawing them from sale because of their oil-bearing character. These lands were segregated and classified as oil lands by the Railroad Company upon the same principle as the Government contends the lands in controversy are shown by the known conditions to be oil lands.

Some of the lands so classified as oil lands were leased for oil production purposes to the defendant Kern Trading and Oil Company, a subsidiary of the Southern Pacific, and were adjoining and interspersed with the lands in suit which at that very time the defendants falsely represented as nonmineral lands.

J. B. Treadwell was the oil expert for the Southern Pacific from 1893 to 1903. He made the map, Exhibit 115, showing the lands to be withdrawn by the Railroad Company from sale. The "shaded tracts" were

reserved from sale because in or near oil territory. Treadwell testified that in selecting lands to be withdrawn from sale he "followed the system of taking the trend of the oil and located enough so as to be sure to go far enough on the dip to include all the oil that they in the future might develop and even further." R. I–437.

When Treadwell was offered as a witness for the Government in the beginning of the taking of evidence, he testified that all of his maps had been destroyed by the fire of 1906 (R. I–433), and that he did not include in his withdrawal any portion of the Elk Hills. R. I–435. He did not then know that Exhibit 115 was in existence to contradict him. This shows that he did include a large part of the Elk Hills and sections adjoining the lands in suit and lands further away from the outcrop or producing wells than these lands, and he admitted if these lands had been patented to the Railroad Company, he would have reserved them from sale. R. VI–3458.

"The system of taking the trend of the oil" and "going on the dip" that Treadwell said he followed in determining what were oil lands, was merely that of starting from the well or exposure, ascertaining the dip of the strata and determining geologically that the lands on the dip were oil-bearing, though distant many miles from the well or exposure.

E. T. Dumble, chief Geologist for the Southern Pacific, on September 21, 1903, wrote to Julius

Kruttschnitt, General Manager of the Southern Pacific, advising that the Kern Trading and Oil Company should acquire such lands then belonging to the Southern Pacific as "we consider valuable for oil purposes" saying:

> The attached maps show these under three heads: first, oil lands proven or practically proven, colored red; very probable oil lands, colored green; probable oil lands, colored blue. Of the oil value of the first two classes there is very little doubt; the third depends in part upon the continuance of normal dips and conditions, but in addition it represents untested anticlinals which show good indications of oil. I consider that all of these lands should be under the control of this company. R. V–2912.

Here we have the defendants' chief expert determining from purely geological evidence, the oil value of the lands. Their value depended upon and was determined from a consideration of the normal dips and conditions and the untested anticlinals.

The lease which was prepared of lands to be transferred to the Kern Trading and Oil Company, included section 31 of township 30–23 in which the lands in suit are situated, section 5 of 31–23 and section 25 of 30–22 adjoining the lands in suit. R. II–1106. These lands contained no wells or exposures, yet they were classified as oil-bearing lands and transferred to the company for oil production purposes, it being the "fuel department" of the Southern Pacific. Their value as oil lands was determined solely from

geologic evidence, by following the dip of the strata from producing wells or oil exposures and assuming the continuation and persistence of the oil sands. This was the method the Railroad Company resorted to prior to the patent in the practical operation of their oil production business.

Josiah Owen began his geological work on the West Side oil fields in the San Joaquin Valley in 1902. He was placed by Dumble directly in charge of the field work, and on March 25, 1903, he made a full report to Dumble. R. III–1615.

In reporting on the McKittrick oil field he said:

> There is but one oil horizon in this field. . . . In the direction of Midway I find that the McKittrick fold flattens out in the valley, but other hills further on in the same direction would indicate that it may extend to near the Kern Lake. The Midway oil sands belong to the same horizon as the McKittrick oil sands. R. III–1617.
>
> I find that there is but the one oil sand and I believe it will be possible to trace the same horizon to the Kern River fields. R. III–1620.

The lands in suit are between McKittrick and the Kern River Field. They are four miles east of McKittrick, while the Kern River field is about twenty-five miles east of the lands in suit.

So in 1903 we have the field geologist of the railroad reaching the conclusion that the oil horizon or sands outcropping at McKittrick persisted and continued under the lands in suit and to the Kern River field twenty-five miles further east.

Similarly in the *Diamond Coal* case it was conceded "that the coal horizon—meaning the coal bearing strata shown at the outcrop, but not necessarily the coal—passed through the lands in controversy." p. 246.

From the foregoing evidence, Judge Bean (R. I–77) was fully justified in finding that "lands therefore may and often do become valuable for oil through adjacent disclosures and other surrounding conditions, although there has been no actual discovery within their boundaries," and in determining whether the lands in suit were known to be valuable for oil, he was not in error in applying the test laid down in the *Diamond Coal* case, because of the similarity of oil to coal in its mode of deposition and situation in the earth.

II.

A SUIT BROUGHT BY THE UNITED STATES TO CANCEL A PATENT FOR FRAUD STANDS UPON A DIFFERENT PLANE FROM THE ORDINARY PRIVATE SUIT TO RECOVER REAL ESTATE.

In *Causey* v. *United States*, 240 U. S. 399, 402, which was a suit to cancel a patent for fraud, the Court said:

> These lands are held in trust for all the people, and in providing for their disposal Congress has sought to advance the interests of the whole country by opening them to entry in comparatively small tracts under restrictions designed to accomplish their settlement, development and utilization. And

> when a suit is brought to annul a patent obtained in violation of these restrictions, the purpose is not merely to regain the title, but also to enforce a public statute and maintain the policy underlying it.

In *Utah Power & Light Co.* v. *United States*, 243 U. S. 389, 409, Mr. Justice Van Devanter said:

> As a general rule, laches or neglect of duty on the part of officers of the Government is no defense to a suit by it to enforce a public right or protect a public interest. . . . And, if it be assumed that the rule is subject to exceptions, we find nothing in the cases in hand which fairly can be said to take them out of it, as heretofore understood and applied in this court. A suit by the United States to enforce and maintain its policy respecting lands which it holds in trust for all the people stands upon a different plane in this and some other respects from the ordinary private suit to regain the title to real property or to remove a cloud from it.

In *United States* v. *Minor*, 114 U. S. 233, 240, which was a suit to cancel a patent for fraud, the court points out the reasons why the Government in this class of cases should not be held to the same diligence in guarding against fraud as a private owner of real estate. The Government owns millions and millions of acres of land, each land district often includes 20,000 square miles or more, in which there are only two officers and they cannot visit the lands but are compelled to rely upon the sworn proofs

furnished by the claimant, who has it all his own way, in the absence of any contesting claimant; there is no adversary proceeding whatever.

> The United States is passive; it opposes no resistance to the establishment of the claim, and makes no issue on the statement of the claimant.
>
> When, therefore, he succeeds by misrepresentation, by fraudulent practices, aided by perjury, there would seem to be more reason why the United States, as the owner of land of which it has been defrauded by these means, should have remedy against that fraud—all the remedy which the courts can give—than in the case of a private owner of a few acres of land on whom a like fraud has been practiced. p. 241.

III.

A REPRESENTATION RECKLESSLY MADE WITHOUT KNOWLEDGE OF ITS TRUTH, BUT WHICH IS IN REALITY FALSE, IS A FRAUDULENT REPRESENTATION.

In *Smith* v. *Richards*, 13 Pet. 26, 36, this court held that—

> Whether the party thus misrepresenting a fact knew it to be false or made the assertion without knowing whether it were true or false is wholly immaterial; for the affirmation of what one does not know or believe to be true is equally, in morals and law, as unjustifiable as the affirmation of what is known to be positively false.

In *Cooper* v. *Schlesinger*, 111 U. S. 148, 155, the Court held that "a statement recklessly made, without knowledge of its truth, was a false statement knowingly made, within the settled rule."

In *Lehigh Zinc and Iron Company* v. *Bamford*, 150 U. S. 665, 673, the Court, in an action at law, approved the following instructions:

> A person who makes representations of material facts, assuming or intending to convey the impression that he has actual knowledge of the existence of such facts, when he is conscious that he has no such knowledge, is as much responsible for the injurious consequences of such representations to one who believes and acts upon them as if he had actual knowledge of their falsity.

In *Wecker* v. *National Enameling Co.*, 204 U. S. 176, 185, it is held that "even in cases where the the direct issue of fraud is involved, knowledge may be imputed where one willfully closes his eyes to information within his reach."

In *Mullan* v. *United States*, 118 U. S. 271, 277, which was a suit to annul a patent for fraud, the court said if the defendants were ignorant of the mineral character of the land "it was because they willfully shut their eyes to what was going on around them, and purposely kept themselves in ignorance of notorious facts."

The duty was incumbent upon the Railroad Company to examine the lands to determine their mineral or agricultural character before filing a selection list.

The duty devolved upon the Railroad Company to ascertain so far as it could by reasonable investigation and examination, the true character of all lands which it selected for patent. This duty arose out of the relationship of the railroad to the Government by reason of the exception of mineral lands (other than coal and iron) from the operation of the granting act and by virtue of the regulation of the Land Department promulgated under congressional authority, requiring that an affidavit of the land agent should accompany the selection list "setting forth in substance that he has caused the lands mentioned to be carefully examined by the agents and employees of the Company as to their mineral or agricultural character," and also by reason of the *ex parte* nature of the proceedings.

The investigation which the Railroad Company was required to make was an investigation to ascertain the mineral character of the land. It was the ascertainment of a fact which involved the exercise of science and the application of expert knowledge and could not be done by non-experts or unscientific men. It was the determination of the mineral or nonmineral character of the land, a matter peculiarly in the province of experts in this branch of the science, and men especially trained in the science of geology and experienced in oil mining. At the time the selection lists were filed, the railroad maintained a geological department, with an experienced corps of oil experts, with E. T. Dumble at their head, yet the evidence

shows that there was no cooperation whatever between the geological department and the land department of the railroad and while these experts were making extensive geological examinations of the lands in this territory to determine their oil character, the information acquired by them was withheld from Eberlein, the land agent, and he testified that he didn't even meet Dumble, the head of the geological department until 1904, about a year after he became land agent, and that the only information he had about the lands was from G. A. Stone, his assistant, who was not an expert but had been a land grader, that is, he graded lands as to their agricultural value. R. II–1158.

Stone testified that he made no examination of the lands for the purpose of making the selection in question but acted upon the general knowledge which he had of the country. R. II–1088.

The opinion of the Circuit Court of Appeals stated that:

> Eberlein is to be held chargeable with knowledge of all the conditions which such careful examination, if made, would have disclosed . . . Everything that was known to the Company's geologists and other agents or employees . . . must be imputed to Eberlein, its responsible agent and representative. R. VII–4–5.

IV.

FINDINGS OF FACT OF DISTRICT JUDGE BEAN.

The Government contends that the findings of fact of Judge Bean who tried the case in the District Court are abundantly supported by the testimony and as he made specific findings covering all of the material phases of the case, a consideration of his findings is deemed the clearest way to present the controversy to this Court. His findings are in Volume 1, pages 72 to 79.

(1) THE LANDS WERE IN A KNOWN AND WELL-RECOGNIZED OIL DISTRICT AND WITHDRAWN FROM ENTRY BECAUSE OF THEIR PROBABLE OIL CHARACTER.

Judge Bean's first finding of facts is as follows:

(1) *The lands in controversy were at the time of the proceedings resulting in the patent within a known and well recognized oil district and had been previously returned by the U. S. Surveyor as oil bearing lands, and at the time the selection list was first filed were within a previous withdrawal order of the Department because of their probable oil character.* R. I–72.

This finding is fully supported by the evidence. The official survey of township 30–23 embracing the lands in suit, made in 1901, set forth that:

> This township is situated within what is known as the Midway Mineral District which is the name given to a district within which many successful oil wells have been developed. To the northwest is what is known as the McKittrick District, the center of which is

about Sec. 18, T. 30 S., R. 22 E. To the southeast is what is known as the Sunset District, the center of which is about Sec. 7, T. 11 N., R. 23 W., and the Midway District is on the line of oil developments between the two.

The surface of the ground in T. 30 S., R. 23 E., from the southeast corner running northwesterly shows a geological formation with asphaltum exudations, that is regarded by experts as an almost sure indication of the presence of valuable petroleum deposits.

The land I have surveyed being more valuable for mineral than for agricultural purposes, I return the following sections as mineral land.

Then follows a list of lands including all the land in suit. R. II–686.

The plat of this survey was approved by the U. S. Surveyor General's office for California, August 1, 1902, which plat is plaintiff's Exhibit "E." R. I–107. This was filed in the local Land Office on May 16, 1903, and is entitled "Mineral land (in Midway Min'l District)." R. VI–3761.

On February 28, 1900, the lands in suit were withdrawn by the Government from entry because of their probable oil character and this withdrawal order was well known to the railroad officials (R. III–1476), and was in full force and effect when the first selection list for these lands was filed November, 1903. It was not revoked until February, 1904, upon the application of the Railroad Company. R. III–1544.

The withdrawal order of February 28, 1900, is in volume III, p. 1524.

Not only were the lands withdrawn from entry by the Government because of their probable oil character, but prior to the filing of the first selection list the Railroad Company through its oil expert, J. B. Treadwell, had withdrawn from sale, because of their probable oil bearing character, the lands in this township which had been patented to the Railroad Company and adjoining the lands in suit.

The lands thus withdrawn by the Railroad Company included 23 sections or parts of sections in the Elk Hills, including all of the lands in township 30–23 patented to the Railroad Company, and Treadwell testified that the only reason he did not reserve the lands in suit was because he did not know they had been surveyed.

Treadwell prepared for the Railroad Company a map dated September 17, 1902, which is exhibit 115, on which he shaded the surveyed sections that he regarded as oil lands because in or near oil territory. R. V–3423.

"I did not shade," said he, "the oil lands which were not surveyed, because they were unsurveyed," and he said that he believed at the time he made his map that the lands in suit were unsurveyed. R. VI–3458–9. The survey was not filed in the local Land Office until May 16, 1903. R. VI–3761.

E. T. Dumble, defendants' geologist who succeeded Treadwell, admitted that the shaded sections

"completely enclosed on the north, the northwest and the south and the west, the lands in this suit" and that they were the lands which in 1902 the railroad reserved from sale because they were in or near oil territory. R. V–3003.

These withdrawals by the Railroad Company included every section in township 30–23 and 30–24, which the railroad owned. R. V–3002–4.

When Treadwell first testified in April, 1912, he stated that he made no withdrawal or recommendation for withdrawal of any sections in the Elk Hills, but when the map which he prepared was finally produced, the falsity of his testimony was clear, for his map shows that he withdrew from sale every section of land in the Elk Hills which at that time appeared to have been surveyed and excluded only lands in the Elk Hills which were at that time either unsurveyed or unpatented to the railroad or which he believed were unsurveyed.

It will appear hereafter that the Railroad Company in 1903 decided to segregate its oil lands from its agricultural lands and to convey them to a company for the purpose of developing oil and to this end the geological experts of the Company made up a list of the proven and probable oil lands owned by the Company, to be conveyed to the Kern Trading and Oil Company, which had been organized as the oil development company of the railroad. This

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lease was presented to Eberlein, the land agent, in August, 1904, to sign on behalf of the railroad but when he found the list included lands adjoining and interspersed with those he had selected for patent he declined to sign it saying "we practically fix the mineral status of the land [selected for patent] by this lease." R. II–1079. This list of lands shows that the railroad experts recognized the lands in suit as within the oil district.

Again when Eberlein was endeavoring to get the patent in suit, he, on December 10, 1903, wrote to D. A. Chambers, Washington (D. C.), attorney for the railroad, as follows: "I am particularly anxious in regard to this list as the lands adjoin the oil territory, and Mr. Kruttschnitt is very solicitous in regard to it." R. III–1577.

The Court of Appeals, referring to the withdrawal order of February 28, 1900, stated that "in our view this order was intended to withdraw lands from agricultural entry only, and it was so generally understood." R. VII–7. The court also said that "the question is perhaps of but slight importance," but it seems to have attached importance to "the total want of oil land entries, notwithstanding suspension from agricultural entries."

We think the court was in error in this as the order is not restricted to agricultural entries, but in terms "suspended from disposition until further orders," the designated lands, and E. C. Finney, who prepared

the order and also the letters of December 10, 1903, and February 11, 1904, referred to in the opinion testified that it was intended to withdraw the lands from all forms of entry and it was so understood in the General Land Office. Finney testified that the lands were suspended "from all forms of disposition. No entry or selection could be allowed during the pendency of the order." R. III–1591.

Finney further testified: The effect given the order of February 28, 1900, "by myself and other employees of the general land office, was it suspended from all disposition the lands described, and that no filings or selections of any kind could be properly received during its pendency, that no mineral entry for petroleum could be made." R. III–1582.

The evidence also shows that some of the mineral locators in this region did not develop their locations because they understood the withdrawal order would prevent them from getting a patent. R. I–125, 503, 510.

All of the "Petroleum Withdrawals and Restorations affecting the Public Domain" have been collected and published in Bulletin 623 of the United States Geological Survey, issued in 1917. The withdrawal in question there appears on page 61 along with six others in identical form, and immediately following are five others in which the form is: "Suspend from disposition under agricultural laws." This difference of expression signifies a purpose to

suspend from all forms of disposition in the former class, including the withdrawal in question, as Finney testified, and to suspend only from disposition under the agricultural laws in the other class where that alone was intended. The result is that the absence of oil entries during the period of suspension, which seemed important to the Court of Appeals as tending to show that the land was not regarded as mineral by prospectors, is without significance.

(2) THE LANDS ARE OF NO VALUE FOR AGRICULTURAL PURPOSES.

Judge Bean's second finding of fact is as follows:

(2) *They are rough broken, arid lands, of no substantial value for agricultural purposes or any other purpose than their oil contents.* R. I–72.

The above finding is amply supported by the testimony of the following witnesses and indeed there is no evidence to the contrary:

B. K. Lee, R. I–277; S. P. Wible, R. I–324; Frank Barrett, R. I–481; J. I. Wagy, R. I–248; W. H. McKittrick, R. I–539; Chas. W. Lamont, R. I–582; F. O. Martin, R. I–615; S. G. Drouillard, R. I–117; F. J. Sarnow, R. I–165, 173, 181; J. W. Kaerth, R. I–418; H. P. Dover, R. I–462; Colon F. Whittier, R. I–475; N. C. Farnum, R. I–508; Parker Barrett, R. I–526; L. D. Bell, defendants' witness, R. III–1805; Samuel Shannon, defendants' witness, R. IV–2143.

Some of the witnesses stated that in a good season there would be some grass for grazing in the spring, and other witnesses stated that the land had no value even for grazing.

(3). EBERLEIN'S AFFIDAVITS THAT HE HAD CAUSED THE LANDS TO BE CAREFULLY EXAMINED WERE FALSE.

Judge Bean's third finding of fact is as follows:

(3) *The statement in the affidavits of Eberlein that he has caused the lands to be carefully examined by the agents and employees of the Company as to their mineral or agricultural character was and is untrue.* R. I–72.

In June, 1903, *C. W. Eberlein* went to San Francisco to take up the matter of the reorganization of the three land grants of the Southern Pacific and on August 3, 1903, he took charge as acting land agent of its land department and his formal appointment was dated September 2, 1903. R. II–1037–8.

The affidavits accompanying the first selection list were filed November 14, 1903. Eberlein had never seen the lands and knew nothing whatever about them personally. He testified that before making the non-mineral affidavit he did not send any one over the lands to examine them and ascertain their character; that he relied upon Geo. A. Stone, but Stone made no special trip to ascertain the mineral or agricultural character of the lands. R. II–1088.

Geo. A. Stone testified that he was Eberlein's assistant and supervised the preparation of selection list 89 under Eberlein's direction.

> I made no examination of the lands in suit, myself, for the purposes of selecting them. Such knowledge as I had of the lands was general in character from my general knowledge of the country. R. II–1029.

The lands were placed in the list at the suggestion of E. T. Dumble, who was consulting geologist of the Southern Pacific at the time. R. II–1028–9.

Stone further testified:

> I regarded the selection of these lands as irregular. Mr. Dumble, as the geologist, I thought pressed the selection for reasons best known to himself. I supposed, as geologist, he thought they were oil lands. He pressed the selection of this land probably within thirty days prior to the list in 1903, not earlier than September or later than November. R. II–1030.

Stone was a pensioner of the Southern Pacific at the time he testified and as soon as he was subpœnaed he went to see the railroad attorney (showing that he was not unfriendly to the railroad) and told him that the list was made up at the suggestion of Dumble. R. II–1030.

Judge Bean in his opinion on this phase of the case said that the—

> insistence of the defendant throughout the case has been that no examination of the lands to

> ascertain their mineral contents had been made by any agent or employee prior to the issuance of the patents, although they had for a year or more maintained a corps of expert oil geologists who were actively engaged in examining and classifying lands in the vicinity for the purpose of ascertaining their character. R. I–73.

The corps of expert oil geologists referred to were J. B. Treadwell, E. T. Dumble, Josiah Owen and F. M. Anderson whose activities in the oil fields began in 1899 and continued to the date of the patent in 1904 and will be referred to at length in the progress of this brief.

E. T. Dumble testified:

> The lands in 30–23, which are the subject of this suit, were not examined geologically to my knowledge prior to the selection thereof in the fall of 1903. R. V–2997.

Eberlein testified that there was no co-operation between the land department and the geological department of the Railroad Company, and that when he learned, in the fall of 1904, that Dumble and his assistants were examining unpatented lands, he protested. R. II–1091–3.

It is inconceivable, we submit, that Eberlein in good faith could have made the affidavit in November, 1903, that he had caused the lands to be carefully examined by the employees of the company as

to their mineral character and that they were non-mineral lands, when he admits that he had not caused them to be examined by any one, but relied upon Stone's general information and he knew that Stone was not a geologist and not in any way qualified, if he had examined the lands, to determine as to their mineral character and when he knew at that time that the company maintained a geological department, with an experienced corps of geologists and oil experts.

Not only did he not call on any of these experts to make any examination of the lands before making the non-mineral affidavits, but the record shows that when he learned Dumble and his assistant geologists were in fact examining unpatented lands, he objected and protested, because it might charge him with knowledge of their oil character and this knowledge he did not wish to acquire. R. II–1091.

Here is what Eberlein wrote:

> The New York Office has forbidden the giving out of any more printed lists of lands because of the unsatisfactory condition of our titles which must not be disclosed. The examination of our S. P. lands, not yet patented, by our oil experts must be stopped as information that they may obtain or give as to mineral character prior to patent will forever prevent our getting titles. . . . Mr. Dumble and his men should not be furnished by us with any data whatever except as to

> *patented* lands. For reasons above given such information will be embarrassing to them and to us and may make them witnesses against this company in mineral contests hereafter. R. II–1095.

While this letter was written in 1908, Eberlein testified that it was but a continuation of the protests which he began to make in September, 1904, just at the time he filed the non-mineral affidavits upon which the patent in suit was issued. R. II–1092.

Eberlein was asked this question in reference to his statement in the above letter that the examination of unpatented lands must be stopped: "Was that statement a continuation by you of the accustomed protesting which you said started as soon as they offered the lease to you?" He answered: "Oh, yes; that is simply the same old thing, only we were suffering a great deal more from the activity of Mr. Dumble at that time—his interference almost every day." R. II–1098.

Asked why he underscored the word "patented" in the last paragraph in the above letter, he answered:

> That is axiomatic in this connection. Mr. Dumble should certainly have nothing to do with any lands except such as were patented. If he did, it was simply—we had no control over Dumble and didn't know what he was doing and no means of finding what he was doing. R. II–1099.

He pointed out in 1904 to General Manager Markham that these examinations "were charging the company with notice." R. II–1093.

In an effort to convince the Court below that Eberlein's affidavits were not made with any fraudulent purpose, it is stated in defendants' brief that "whether or not Stone's examination was sufficient is not important; nor is the fact important that Eberlein did not have these lands examined by geologists then in the employ of another department of the company. These men were not subject to his orders."

There is no evidence that Eberlein made any request to use the geologists of the company, but on the contrary, he testified that when he learned they were examining unpatented lands which he was about to select, he protested and insisted that their examinations should stop because in that way the Company would acquire knowledge of the true mineral character of the lands and in any contests in the Land Office they would be witnesses against the Company. The fallacy of defendants' argument is so transparent that further comment is deemed unnecessary.

"Moreover," said defendants in their brief below, "there is no showing of any circumstances suggesting to him [Eberlein] that such an examination (by geologists) was required."

What further showing of circumstances indicating that such an examination was required could there be than the following? First, his duty in the premises under the granting act giving the Railroad only non-mineral lands and requiring him to select the non-mineral, under rules promulgated by the Secretary of the Interior, which required him to have them carefully examined as to their mineral or agricultural value. Second, the knowledge that the lands had been suspended from disposition because of their probable oil character and were in the oil district. Third, the knowledge that the selected lands adjoined the proven oil territory and that the railroad company was proposing to transfer to the Kern Trading and Oil Company, its oil development company for oil production purposes, its lands adjoining and interspersed with those he was undertaking to have patented and his refusal to execute this lease because it would fix their mineral status.

Eberlein could blindly go ahead, shut his eyes to these known conditions and pregnant circumstances, swear that he had caused the lands to be carefully examined, which he knew to be false, and yet it is seriously contended that such conduct does not indicate bad faith and that Eberlein had no just reasons for believing the lands in suit were oil lands.

In attempting to excuse Eberlein's failure to have the lands examined before selection and in an effort

to minimize the force and effect of his sworn statement that he had caused them to be carefully examined, the defendants in their brief filed in the Circuit Court of Appeals say "he had no reason to do so." He knew the regulation of the Department required him to have them carefully examined. What better reason could be suggested? Again counsel urged as an excuse for Eberlein not having these lands examined that "they were far removed from producing oil territory." Eberlein wrote to Chambers on December 10, 1903, that the reason he was anxious to get them patented was because "they adjoin the oil territory." R. III–1578. And he knew they were adjacent to and interspersed with lands owned by the company which the oil experts had classified as oil lands, to be turned over to an oil development company for the purposes of producing oil to be used as fuel for the railroad locomotives.

An attempt was made by the Railroad Company to excuse Eberlein's failure to have the lands examined because the Government had them examined by Ryan, but the inception of the fraudulent purpose to acquire these lands was when Eberlein made and filed his first set of nonmineral affidavits in November, 1903, and this was before Ryan's examination. Ryan was not instructed to examine these lands until December 10, 1903, and he made his superficial examination in January, 1904. So when

Eberlein made his first false and fraudulent affidavit, the lands had not then been examined by Ryan, and the same motive which actuated him in swearing falsely prior to Ryan's examination actuated him in swearing falsely in the affidavits filed subsequent thereto, and besides, between the time of filing the first set of affidavits in November, 1903, and the second set in September, 1904, and up to the issuance of the patent on December 12, 1904, many circumstances had come to Eberlein's attention which must have convinced him of the oil value of the lands for which he was attempting to secure a patent as agricultural lands.

Before and during the period of more than a year while the proceedings, which resulted in the patent in question were pending, the only thing Eberlein did in reference to the lands in suit was to inquire of his assistant, Stone, at the time he made the first affidavit in November, 1903, as to the character of the land. Here is what Eberlein said he did: "Just a general inquiry, when I made the affidavit as to whether there was any of it mineral." He was not sure Stone informed him that he had been over the ground but it was his understanding that Stone was familiar with it. R. II–1158.

The court was compelled to find that Eberlein's statement that he had caused the lands to be carefully examined as to their mineral character was untrue.

(4) THE DOCUMENTARY EVIDENCE AND EBERLEIN'S CORRESPONDENCE SHOW THAT THE RAILROAD OFFICIALS KNEW THAT THE LANDS WERE OIL BEARING.

Judge Bean's fourth finding of fact is as follows:

> (4) *I think it clearly appears from the documentary evidence in the case, and particularly from the correspondence from Eberlein's files (a portion of which was kept separate from the general files of the office and guarded with the utmost secrecy until compelled to be produced on this hearing) that at the time the selections were made and the patent issued, the officers of the company in charge of the matter were conscious that the lands were, if not actual, at least probable oil bearing, and that the selections were made and strenuously urged to patent for that reason, and not because of their agricultural value.* R. I–73.

Judge Bean briefly reviews the evidence upon which this finding is based. As it so conclusively establishes the fraudulent purpose of the responsible officials of the railroad and is so pregnant of their conscious wrong doing and of their purpose to secure these lands because of their mineral character, a more extended examination is thought advisable.

J. B. Treadwell was the oil expert of the Railroad Company until March 1, 1903, and in September, 1902, made his withdrawal map, Exhibit 115, showing the lands of the company to be reserved from sale and both E. T. Dumble and Josiah Owen, railroad geologists, were furnished this map in 1902. R. V–2901–2.

In November, 1902, E. T. Dumble accompanied J. B. Treadwell to the West Side oil fields to inspect the oil properties and reported to Julius Kruttschnitt, Vice-President and General Manager of the railroad and in charge of its oil matters on the Pacific Coast, under date of December 4, 1902, giving his views of the extent of the oil lands in the San Joaquin Valley and concluded by saying:

> I propose to take up their examination in a systematic way during the coming year in order to determine as far as can be done from surface indications and geological structure where oil is to be expected in this region with especial reference to deposits in our own lands. So far as I can judge from a trip I have just made over this territory, this work promises results of greatest value to the company. R. V–2906.

In March, 1903, Dumble succeeded Treadwell and Josiah Owen was placed directly in charge of the oil fields as Dumble's assistant and under date of March 25, 1903, Owen made a report to Dumble in which he stated that there was but one horizon and that he had traced its outcrop from the McKittrick to Sunset and found that there was but one oil sand and he believed he could trace the same horizon to the Kern River Field, about twenty-five miles east of the lands in suit. R. III–1619–20.

Owen transmitted with this report a map which is Exhibit 157, showing the anticline running from section 6 of 30–22 through the lands in suit. He

stated that this fold north of McKittrick exposes oil sands in several places and in some of the exposures the sands are strongly impregnated with asphaltum and producing wells ought to be found along these exposures. R. III–1634.

The first direct reference to the lands in suit in the correspondence is in a letter of September 26, 1903, from C. W. Eberlein, Acting Land Agent, to Julius Kruttschnitt. Kruttschnitt replied to Eberlein on October 9th, by wire and by letter from New Orleans and on the same date he wrote D. A. Chambers, the attorney for the Railroad Company in Washington, D. C. The Government endeavored to secure the production of these letters and telegram, or copies, but without success, though Eberlein and Kruttschnitt were examined and Chambers' files were searched. R. III–1477.

On October 12, 1903, Chambers wrote to Kruttschnitt. This letter is entitled "Survey of part of township 30–23, plat approved August 1, 1902", and the first paragraph is as follows:

> I have received your letter, dated New Orleans the 9th inst., in relation to the above survey, with copy of Mr. Charles W. Eberlein's letter to you of the 26th ult., and copy of your telegram to him in reply, dated New Orleans the 9th inst.
>
> I find that the plat of part of the above township, approved August 1, 1902, embraces Sections 15, 17, 19, 21, 23, 25, 27, 29, 33 and 35. R. III–1474.

These are the identical sections involved in suit. In this letter Chambers further said:

> Mr. Eberlein says that no selections of any of these lands had, when he wrote, been made by the Southern Pacific R. R. Co., but that he expected to tender a selection list within a week or ten days from the date of his letter to you, and he suggested that you might ask that special attention be given here to the patenting of this list.
>
> As soon as advised that such list has been transmitted by the R. and R. to the General Land Office, I will at the earliest possible date urge the issuing of a special patent for the lands selected.
>
> Please call Mr. Eberlein's attention to the fact that the Commissioner of the General Land Office, by his telegraphic order of February 28, 1900, to the R. & R. at Visalia, suspended from disposal the lands in T. 30 S., R. 23 E., together with the lands in a great many other townships, upon allegations that the said townships contained petroleum.
>
> Upon inquiry to-day I find that this withdrawal order as to T. 30 S., R. 23, E., has not been revoked, and will not be until a Special Agent has reported that said lands are not petroleum lands.
>
> Mr. E. C. Ryan (office at Los Angeles, Cal.) is the Special Agent who has been directed to report upon a large body of lands in the Visalia land district, embraced in the Commissioner's order above referred to. Mr. Ryan has been

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here lately, and has been urged by officials of the Land Office to report as rapidly as possible upon the townships involved.

I presume the Register and Receiver may not approve the lists of the lands in this township which Mr. Eberlein has tendered or will tender, because of the Commissioner's aforesaid order of February 28, 1900. If Mr. Eberlein will write me just what lands he desires to select in T. 30 S., R. 23 E., I can ask the Commissioner of the General Land Office to direct Special Agent Ryan to examine said lands as quickly as possible and make special report as to their character. R. III–1474.

While the Railroad Company claims that it had nothing to do with the selection of Ryan to make the examination, this letter shows that Chambers intended to ask the Commissioner to appoint Ryan to do the work. He was the man the railroad wanted because it knew he was not qualified to examine the lands geologically. And in Chambers' letter of December 10, 1903, to Eberlein, advising him that he had requested an examination of the lands by a special agent and that the Commissioner had directed an examination, he said "I presume the special agent is Ryan, but I am not advised positively about this." R. III–1482. And again in his letter of December 16 to Eberlein, he wrote that he "supposed this special agent is Mr. Ryan but was not sure." R. III–1485. Chambers knew what was going on because in his letter of January 13, 1904, to Eberlein, he wrote that "*confi-*

dentially" he had been allowed to read the letter of instructions from the Commissioner to Ryan of date December 10, 1903. R. III–1488.

On October 18, 1903, Eberlein wired Chambers in regard to the lands in suit and on October 19, Chambers wired Eberlein, suggesting that he should "immediately select" these lands, adding "this ought to be protection against adverse claimants filing or alleging settlement later than our selection. Right of railroad company to indemnity lands is determined by their status at date of selection." R. III–1479.

Here we have Chambers urging haste and immediate action to get in ahead of adverse mineral filings or agricultural settlements. Chambers was evidently of the opinion that the filing of the selection list would cut off adverse claimants.

He realized from the examinations and reports which had been made by Treadwell, Owen and the other railroad oil experts, that unless the lands were immediately taken up, they would be lost to the railroad by mineral entries and he wanted their status fixed as agricultural lands forthwith. The official survey of these lands had been filed just a few months before.

On October 24, Chambers wrote Eberlein confirming his telegram of the 19th, saying:

> I thought you should tender an indemnity selection list for such lands, notwithstanding that township is now suspended from entry

> on account of allegations that it contains petroleum, and that if the R. & R. refuse to accept the list, you should take an appeal to the Commissioner. R. III–1480.

While this correspondence was going on between Eberlein, Kruttschnitt and Chambers, G. A. Stone, Eberlein's assistant, was preparing the selection list for these lands, Dumble, the Company's "consulting geologist," having pressed for their selection because he thought they were oil lands. R. II–1029.

When Dumble forwarded to Kruttschnitt on September 21, 1903, the letter or report of Owen, the associate geologist, of March 25, 1903, he enclosed "maps". R. V–2913. The maps enclosed were, we contend, Exhibit 157, Owen's map of untested anticlinals, tracing the Elk Hills anticline across the lands in suit, and Exhibit 115, Treadwell's map showing withdrawal of lands surrounding the lands in suit, because in or near oil territory. The defendants' claim that these were not the maps sent to Kruttschnitt will be adverted to later.

Both Kruttschnitt and Dumble disclaimed having anything to do with the selecting of the lands in suit, while Eberlein testified that he had no personal knowledge of the lands but relied upon Stone who testified that Dumble was pressing the selection of these particular lands. In this connection the following statement about this selection list in a letter from Eberlein to Chambers, dated December 10, 1903, is significant:

> I am particularly anxious in regard to this list as the lands adjoin the oil territory, and Mr. Kruttschnitt is very solicitous in regard to it. R. III–1577.

On November 7, 1903 (Stone having prepared the selection list), Eberlein made the two nonmineral affidavits accompanying the list and heretofore referred to, and filed the same in the local Land Office at Visalia, Cal., on November 14, 1903. R. VI–3752.

On November 17, 1903, the Local Land Office rejected the list because the lands had been "suspended from disposition" by the order of February 28, 1900, of the General Land Office. R. VI–3756.

On November 30, 1903, Chambers wired Eberlein recommending an appeal to the Commissioner of the General Land Office (R. III–1481), and on the same date requested the Commissioner to have an investigation of these lands made immediately by a special agent with the purpose of having them released from suspension. R. III–1483.

On December 9, 1903, W. F. Herrin, General Counsel of the road advised Chambers that an appeal had been taken and on December 16, Chambers wrote Herrin that the Commissioner of the General Land Office had ordered an examination of the lands as requested and said further in reference to the appeal:

> It did not seem advisable to me that the Company at this time should take steps to

> get a hearing as to these lands. R. III–1483–4.

He also discussed the suggestion that Chambers had made that he try to induce Ryan, the special agent, to make a report. Eberlein did not think it would do to ask Ryan for a report on the lands selected by the Company, but he suggested that the Department be asked to suggest to Ryan that he make a report of so much of the lands within the suspension limits, which embraced a very large area, as he had examined and

> we would then be relieved from the danger of having called particular attention to any locality. R. III–1577–80.

No one can read this letter without concluding that Eberlein was satisfied that the lands were oil-bearing and that a careful examination would reveal their true mineral character to the Government land officers.

On January 6, 1904, Eberlein criticized Chambers for not following the suggestion in his letter of December 10, 1903, that no request be made for examination of special lands selected by the railroad and on January 13, 1904, Chambers replied that he had taken the course he did before receiving Eberlein's letter, but assured Eberlein there was no danger because the order to Ryan was general and quotes the order in which it is stated that the Department has no force to assist him and that his report will be based upon examinations heretofore made and his familiarity with the country generally. R. III–1485–7.

This letter of January 6 in which Eberlein disapproved of Chambers' action in asking a special examination of the lands in suit, was not produced by the railroad though Mr. Hoehling, Chambers' successor, was subpoenaed to produce all the correspondence between Chambers and Eberlein. R. III–1478, 9.

On January 22, 1904, E. C. Ryan, Special Agent, made his first report, recommending that the lands in controversy be relieved from suspension and on February 11, 1904, upon receipt of this report, the order of suspension was revoked by the Commissioner of the General Land Office. R. III–1555.

Nothing further was done with the appeal which had been forwarded to the General Land Office on December 11, 1903.

On March 22, 1904, Ryan, Special Agent, made an additional report covering 45 townships and including the lands in suit, in which report he recommended that those lands be relieved from suspension on which there were no wells producing oil in paying quantities (R. III–1560–7), and on April 5, 1904, the Local Land Office was notified that the lands in township 30–23 were relieved from suspension. R. III–1568.

On June 20, 1904, Eberlein made another affidavit that he had caused the lands in suit to be carefully examined as to their mineral or agricultural character. This was received by the General Land Office July 20, 1904. R. III–1573.

On August 31, 1904, Eberlein caused a new selection list, with correct base lands to be filed, and made two affidavits identical with those which accompanied the original list and filed the same September 6, 1904, and it was upon this list that the patent was issued on December 12, 1904. R. VI–3775.

(*a*) *Eberlein refused to execute the lease to the Kern Trading and Oil Company in August, 1904, because it fixed the mineral status of the lands in suit and the Government would have good ground for refusing patent, if the facts were known.*

The Kern Trading and Oil Company, one of the defendants, had been organized by Kruttschnitt on May 31, 1903, as the fuel department of the railroad and it was his plan to transfer to that Company all the oil lands of the railroad for the production of oil. R. V–3100.

Kruttschnitt had requested Dumble to prepare a statement of the property to be taken over by the Kern Trading and Oil Company, and on September 21, 1903, Dumble furnished the statement, saying:

> The Kern Trading and Oil Company should acquire by purchase or lease such lands now belonging to the Southern Pacific Company as we consider valuable for oil purposes. The attached maps show these under three heads; first, oil lands proven or practically proven, colored red; very probable oil lands, colored green; probable oil lands, colored blue. Of the oil value of the first two classes, there is

> very little doubt; the third depends in part upon the continuance of normal dips and conditions but in addition, it represents untested anticlinals which show good indications of oil. I consider that all of these lands should be under the control of this company. R. V.–2912.

On August 2, 1904, a few weeks before Eberlein made the last non-mineral affidavits, a lease transferring from the railroad to the Kern Trading and Oil Company many thousand acres of oil lands, including lands interspersed with those in suit and one section in township 30–23, in which the lands in suit are located, and adjoining these lands, was presented to Eberlein to sign on behalf of the Railroad. The lease was presented by C. H. Markham who had succeeded Kruttschnitt as General Manager of the railroad, and who was president of the Kern Trading and Oil Company, and had executed the lease as such President. R. V–3086; II–1101, 8.

Eberlein realized that the execution of this lease by him would not square with his conduct in signing the nonmineral affidavits, as the lease conveyed to the oil company for the production of oil, lands adjoining those he was trying to secure for the Railroad Company as non-oil-bearing, agricultural lands. Dumble, the Company's geologist, had selected the lands to be included in the lease. Eberlein, in December, 1903, had advised Chambers that Kruttschnitt was very solicitous about getting this patent because the

lands adjoined the oil territory. Now it was proposed by the Railroad Company to fix the mineral character of the lands by conveying the adjoining and interspersed lands to a subsidiary company for the purpose of developing their oil contents. This lease presumably would be recorded and it couldn't be kept secret. So Eberlein being anxious to secure the patent and likewise not being willing to be placed in this inconsistent and anomalous position, refused to sign the lease. R. II–1128.

The lands in the proposed lease included about 25,000 acres adjacent to the lands in suit and located along the eastern base of the Temblor Range beginning northeast of McKittrick and extending southeast for 30 miles to Sunset. R. II–1106.

Owen was the railroad geologist in the field, reporting to Dumble, and he told S. P. Wible, banker and oil operator, just about the time of the selection in 1904 that if the railroad selected the lands in township 30–23, it would be selecting mineral lands; that he (Owen) had reported them as mineral lands, and the Railroad Company had no right to select them. R. I–324–5.

Eberlein having received the proposed lease August 2, 1904, with request that he sign it, declined to do so for the reasons which are set out in his letters, but he did not relax his efforts to get the patent and on August 31, 1904, made the third and last set of nonmineral affidavits and filed them September 6.

On September 3, 1904, between the time of making and of filing the last nonmineral affidavits, Eberlein wrote to W. D. Cornish, Vice-President of the railroad, located in New York, in charge of land matters, a letter marking it "personal" in reference to the lease to the Kern Trading and Oil Company, which was then with him for his signature.

He wrote that he was totally in the dark as to the object of this corporation; that he was told in a general way that it was organized for the purpose of taking over the oil lands of the railroad and operating the same; that the proposed lease covers all the lands now in the ownership of the railroad that either "are or are supposed to be oil bearing." Continuing he wrote as follows:

> I can stave off the delivery of this document for some time yet, I think, for the reason that if the knowledge of this lease becomes public property it will probably cause us a great deal of trouble in the United States Land Office, and may result in the loss of a large body of adjacent lands which may hereafter turn out to be mineral and oil bearing. * * *
>
> I have just succeeded in getting the special agent in charge to make a report releasing our land from interdictment.
>
> If it becomes known that we have executed a lease of lands interspersed with those already under selection by us, and that the lease is for oil purposes, it seems to me that it will immediately encourage oil speculators to file

> upon the lands so selected and that the government will have good ground for refusing patent, inasmuch as we practically fix the mineral status of the land by this lease. R. II–1075–8.

Eberlein in this letter requested Cornish to wire him, but not hearing from him, Eberlein testified that he went to New York in the fall of 1904 and carried the secret file of correspondence with him (R. II–1257) and held a conference about this lease and they—

> agreed as to the impropriety of a lease at that time. . . . He [Cornish] was very positive in his instructions that I was not to sign it or to recognize it. He considered it an improper lease to be made, having reference to the selection list of lands in the immediate neighborhood. R. II–1125–7.

Eberlein further testified that he and Cornish

> naturally recognized at least the very ambiguous position in which we would be placed, both of us, by that lease, if that lease were made—and especially if I made the lease, I having also made the selection list which was at that time unapproved. R. II–1128.

After Eberlein wrote to Cornish on September 3, his next letter was on September 10, 1904, to C. H. Markham who had presented to him for signature the lease to the Kern Trading and Oil Company.

He wrote:

> There is a very urgent reason for delaying the execution of these papers.

> We have selected a large body of lands interspersed with the lands sought to be conveyed by this lease, and which we have represented as nonmineral in character.
>
> Should the existence of this lease become known it would go a long way toward establishing the mineral character of the lands referred to, and which are still unpatented.
>
> We could not successfully resist a mineral filing after we have practically established the mineral character of the land.
>
> I would suggest delay at least until this matter of patent can be adjusted. R. II–1055.

On September 19, 1904, Dumble wrote Markham a letter in which he returned Eberlein's letter of September 10, which Markham had sent to Dumble. On October 5, 1904, Dumble wrote Eberlein requesting a conference. On October 7, 1904, Eberlein answered suggesting a conference the next day, in room 71, where they could have a room to themselves. R. II–1065–6. On October 8, 1908, Eberlein through his assistant, Stone, furnished to Dumble plats showing the status of the railroad lands in certain townships, including township 30–23 in which the lands in suit are situated. R. II–1067.

On December 7, 1904, Dumble wrote W. H. Bancroft, Acting General Manager, as follows:

> In connection with our correspondence regarding the transfer of property to the Kern Trading & Oil Company, I have had a conversation with Mr. Eberlein and it seems for

> reasons of policy regarding certain unpatented lands that it will be best not to execute the lease of lands between the S. P. R. R. Co. and K. T. & O. Co. at present. R. II–1072.

This conference with Dumble was more than two months before the patent was issued. Dumble disclaimed having anything to do with the selection of the lands in suit, though Stone said he pressed for their selection. After the fire of 1906, following the earthquake in San Francisco, Dumble was trying to find the lease of 1904. Eberlein was approached and denied any knowledge of any lease and on March 15, 1907, Dumble wrote to Eberlein reviewing the correspondence with reference to the lease and among other things said:

> Early in December we had a further conference on the matter and you explained that you were rushing certain lands for final patent and that the immediate execution of the lease showing our idea of what were oil lands might interfere with you and we agreed to defer the execution until that danger was passed. On December 7, 1904, I wrote Mr. Bancroft explaining this and suggesting that the lease be held up temporarily. R. V–2957.

Dumble being asked what was the danger he referred to, replied:

> Danger of interfering with him [Eberlein] and the danger that these lands might be delayed and not be patented because of their mineral character. R. V–2986.

(*b*) *The Correspondence Concerning the Lease of Oil Lands to the Kern Trading and Oil Company was kept separate from the general files and guarded with the utmost secrecy.*

The "personal" letter to Cornish from Eberlein, dated September 3, 1904, protesting against the signing of the lease is the beginning of the correspondence which Judge Bean finds "was kept separate from the general files of the office and guarded with the utmost secrecy until compelled to be produced" by the Government.

Eberlein testified that the correspondence with reference to the proposed lease was not kept in the files at all but in the safe deposit vaults of the California Safe Deposit and Trust Company and when needed it was brought into the office and kept in a separate place in the safe. R. II–1082–1133. Eberlein testified Cornish's

> instruction was that I was to keep those to myself. He said they might hereafter be necessary for my protection. They have been kept by me ever since.—And incidentally for his own protection. R. II–1128.

G. A. Stone was the only person who had access to that safe. Eberlein said the file remained constantly in his individual possession until it was "pried out of" him at the hearing in Los Angeles. R. II–1272.

Cornish, as we have seen, instructed Eberlein to secretly preserve the correspondence relating to the

Kern Trading and Oil Company lease, beginning with the letter of September 3, 1904, from Eberlein to Cornish.

Eberlein was asked if he ever had any conversation with Cornish after the fire of 1906 in reference to the disposition or destruction of this correspondence and Eberlein testified that on a private car out of Ogden in the fall of 1907 Cornish "said that inasmuch as the papers of the company in the Land Office were destroyed," he had destroyed all of the papers he had received from Eberlein. R. II–1074–5. It turned out, however, that the correspondence, while greatly damaged by the fire, was not destroyed and Eberlein caused copies to be made from the scorched papers, and that is how this correspondence happened to be preserved.

The same secrecy which had obtained in the filing and preservation of this correspondence was maintained in having it copied. The copying was done two weeks after the fire under the supervision of G. A. Stone. Mrs. Cunningham, who was the copyist, testified that when Stone—

> handed me these letters he said for me to copy these papers and not to allow them to go out of my hands to anyone else in the office, none of the stenographers, but I was to keep them myself and return them to him personally. . . . Mr. Stone told me to see that they were correct and to compare them with Mr. Koch.

> He told me to go over and sit on one side of the room near a little bay window of the office and compare them in an undertone, which we did. . . .
>
> There was an air of secrecy about the handling of these papers. He told me not to give them into the hands of any other clerk in the office. . . . If there was a duplicate of this file in the office before the fire I didn't see it, it was not kept in the general files. . . . I was impressed at the time that these papers were practically private and he said little things to give me that impression. . . . I concluded there was something very secret and vital about those papers. R. II–1321–3.

If Eberlein, after the selection list was filed but before patent, acquired knowledge or information showing that the lands selected were mineral, though his affidavit was innocently made at the time, it would have been his duty to disclose the after-acquired knowledge or information to the Land Office.

> Though a party making a representation may at the time believe it to be true, and have made it innocently, yet, if, after discovering that it was untrue, he suffers the other party to continue in error and to act on the belief that no mistake has been made, this, from the time of the discovery, becomes in contemplation of a Court of equity, a fraudulent representation, even though not so originally. *Kerr on Fraud and Mistake* (3rd. ed.), 55, 56.

It will be recalled that when Eberlein filed the selection list in November, 1903, he had recently taken charge of the Land Department of the Railroad Company, and he claimed to have no information about the lands. But before he filed the rearranged selection list in September, 1904, he knew the Railroad Company, through its geological department had segregated the oil lands then owned by the company from its agricultural lands and that the lands interspersed with the lands he had selected for patent were classified as oil producing lands and he had refused to execute the lease conveying these adjacent oil lands to the Kern Trading and Oil Company, because if these adjacent lands were believed by the oil experts of the company to be suitable for oil development, it followed that the lands he had selected for patent were likewise valuable for their oil contents.

When he acquired this knowledge he had not filed his rearranged selection list. Instead of saying to the Company, "I will not proceed further with this application, because I cannot in good faith make the non-mineral affidavit" as it was his duty to do, what did he in fact do? He advised Judge Cornish, Vice-President in charge of land affairs, C. H. Markham, General Manager, and E. T. Dumble, Chief geologist, that what had been done must be kept secret. If knowledge of it reached Washington, the Government would have good ground for refusing the patent. Eberlein was careful to see that he should not be put in an inconsistent position, by *openly* doing two acts which were utterly inconsistent—that

is, represent under oath that one section was non-mineral for the purpose of securing an agricultural patent and represent under his hand and seal that an adjoining section was so valuable for oil, that it was to be conveyed to a company to develop its oil contents for commercial purposes. The known geological conditions and structure of both were identical.

Cornish agreed with Eberlein that the lease was improper. Dumble agreed with Eberlein that the situation was fraught with danger—"danger that the Land Office would refuse the patent because of the mineral character of the land" to use Dumble's language, if knowledge of the conduct and belief of the railroad officials should become known. Accordingly, it was agreed that the lease should be held up until the patent should be obtained and Eberlein proceeded with his application for the patent. He never signed the lease and secretly kept it in a private vault, satisfied that should this patent be attacked (as he testified he anticipated, R. II–1093) the files of the company would not compromise him, for he had not signed the lease and the correspondence about it was in a private vault. That Eberlein tried to so act as to be in a position to claim that he was in no way connected with the lease and knew nothing of it, if any trouble should arise, is shown by the fact that in February, 1907, he disclaimed any knowledge or information about the lease, although at that time he had in his possession all the correspondence concerning it. This had been badly charred by the San Francisco fire of 1906 and he had destroyed it after

having it copied in a most secret way. He thought that all the records had been destroyed except this secret file which was saved from the wreck by being in a private safe separate from the general files. That this correspondence, which conclusively shows the conscious wrongdoing of those concerned, was unearthed and secured by the government for this trial is a most fortunate circumstance in the interest of truth and justice. Eberlein testified that the only way that the Government got hold of it was that "it was pried out of him" at the hearing at Los Angeles. R. II–1272.

(c) *Stone's threats, after his discharge, to reveal to the Government the confidential knowledge he possessed in regard to the irregularities in connection with the patenting of lands, and especially the selection of the lands in suit, resulted in his securing a pension from the Railroad Company.*

It will be recalled that G. A. Stone was land grader under Madden and when Eberlein succeeded Madden in 1903, he retained Stone and appointed him his assistant and Stone acted as land agent during Eberlein's absence and that Eberlein relied upon Stone in selecting the lands in suit and that Stone made up the list because Dumble pressed him to do it. Stone was the only man in Eberlein's office who had access to the file of the Kern Trading & Oil Company. It was he whom Eberlein selected to have copies made in 1906 of this file.

In December, 1907, Eberlein discharged Stone because he would not do what he was told to do, and on January 8, 1908, Stone wrote to General

Manager Calvin advising him that Eberlein had discharged him without good cause and asked that he be given employment in some other department, calling attention to his long service. He sent a copy of this letter to Kruttschnitt and to Judge Cornish and wrote Kruttschnitt as follows:

> As land examiner and assistant land agent I have obtained a knowledge of the lands and records not possessed by any other official or employee of the company, but notwithstanding this, and though I have for several years borne a large part of the burden, Eberlein has seen fit to force me out. I think the quality of my work and the confidential character of my employment in the land department indicate that the best interests of the company will be served by not turning me down after long and faithful service. R. V–3117.

Calvin wrote Stone that he had no jurisdiction over the affairs of the land department and could offer him no other employment.

On February 14, 1908, Stone wrote to Eberlein suggesting retirement if his services were no longer desired, but he received no reply to this letter. Thereupon, under date of March 23, 1908, he wrote again to Kruttschnitt referring to the above correspondence with Calvin and Eberlein and concluding his letter with this threat:

> I served the company faithfully and well many years and hoped that its interests would always be mine, but if a hearing and fair

> treatment are not accorded me without further delay, my services will be at the disposal of the Newspaper Press, the United States Attorney General, and others. R. V–3116.

Before the receipt of this letter Kruttschnitt had, on February 19, wired Cornish as follows: "Referring to our conversation about G. A. Stone, will you please let me know what the trouble is in the matter." Cornish replied by wire that "Stone was dropped in the interest of economy and because he was no longer needed for the kind of work which he preferred to do." On February 24, Kruttschnitt communicated to Calvin the contents of Cornish's telegram. Following this threat of exposure Stone was pensioned though he had been discharged for insubordination.

It is safe to conclude that Kruttschnitt would not have permitted Stone to be pensioned after his threatening and insulting letter but for the fact that he knew it was for the best interests of the Company, as Stone suggested. If they turned him down, he would reveal to the Government the facts in regard to the patenting of lands which would show fraud, many of which facts he alone of the employees knew, for he had "a knowledge of the lands and records not possessed by any other employee." It was this knowledge that the officials did not wish the Government to obtain; knowledge as to the facts surrounding the selection and patenting of the lands in suit; knowledge of the records concerning the secret transfer to the Kern Trading and Oil Company; Stone being the only employee who had access to this file.

Kruttschnitt knew of Stone's connection with these matters. The lease to the Kern Trading and Oil Company had never been recorded or made public. R. V–3103.

(5) THE KNOWN CONDITIONS AT THE TIME OF THE PROCEEDINGS WHICH RESULTED IN THE PATENT WERE PLAINLY SUCH AS TO ENGENDER THE BELIEF THAT THE LAND CONTAINED OIL DEPOSITS OF SUCH QUALITY AND IN SUCH QUANTITY AS WOULD RENDER THEIR EXTRACTION PROFITABLE AND JUSTIFY EXPENDITURES TO THAT END.

Judge Bean's fifth finding of fact is as follows:

> (5) *From a careful examination of the evidence I have reached the conclusion that the topographical and structural formation and character of the lands and of the surrounding area, their proximity to and the known extent of oil development and oil lands to the south and west, and extending out and towards the lands in question, the seepages on or near the lands and the anticlinal structure thereof, and the then known surrounding conditions "were clearly such as to engender the belief that the lands contained mineral (oil) deposits of such quality and in such quantity as would render their extraction profitable and justify expenditure to that end" at the time of the proceedings which resulted in the patents. R. I–77.*

The known conditions will be considered as follows:

(A) The anticlinal structure of the lands in suit.

(B) Their situation with reference to the diatomaceous shales which are the source of oil in California.

(C) The seepages, oil sands and other indications of oil in the Elk Hills and upon the lands in suit.

(D) The indications of oil in the vicinity of these lands.

(E) The oil development in the McKittrick, Midway, Sunset and Kern River Fields.

(F) The dip of the oil sands and strata exposed in the outcroppings along the oil development from McKittrick to Sunset.

(a) *The Elk Hills are of anticlinal structure which is most favorable for the accumulation and retention of oil.*

The lands in controversy are situated near the center of the Elk Hills and lie on both sides of its summit. R. II–690.

A. C. Veatch testified: The Elk Hills

> are an elongated group of hills extending northwest and southeast, about sixteen miles long, six or seven miles wide in the widest portion, which rise rather abruptly from the San Joaquin Valley, on the western side, to an elevation of a thousand to twelve hundred feet above the level of the valley. R. II–688.

They are separated on the south from the Buena Vista Hills by a relatively level valley from which they rise to an elevation of five or six hundred feet. R. II–688. They are a semi arid desert, sparsely covered with sage brush and having no agricultural value whatever. The Elk Hills are structural hills, by that is meant they are an anticlinal fold, in which

the present topography shows the essential shape of the fold and that fold

> has a few subordinate wrinkles in it, and it is those little wrinkles in the grand uplift or fold which have been referred to as different anticlines. They are anticlinal axes of minor folds. The whole hill itself is a great fold.

The anticlinal plunges and that gives an elongated dome shape. R. II–714. The Elk Hills "are elongated domes of ideal structure for oil accumulation." R. II–703.

The structural character of the Elk Hills is evident even to the most casual observer. R. II–702. Structural hills like the Elk Hills are not made by erosion, by the action of water, but are formed by the twisting or torsion of the crust of the earth, which gradually folds the stratified beds up until the hills are formed by the pressure. Erosion following the folding up of the beds enables

> the geologist to examine the character of the rocks as fully and carefully as he could in an enormous trench dug through the surface of the earth. Extending for many miles it forms a much more sound basis for judgment than a single development. R. II–697.

F. O. Martin, expert geologist, testified the Elk Hills

> may be termed an anticlinorum, meaning thereby an anticlinal ridge with a major anticline and smaller wrinkles, folds, running parallel or nearly parallel to the main ridge.

> . . . The dips on either side of the main ridge are low and gentle, giving it a rather broad summit and a more or less dome-like appearance. R. I–612.

Josiah Owen, the railroad geologist, in his report of March 25, 1903, to E. T. Dumble, enclosed a map (Ex. 157—R. V–2977) in which the anticlinal structure of the lands in controversy is shown.

W. H. Ochsner, another railroad expert, testified:

> Where the anticline is as clearly defined as in the Elk Hills we have the elements of an ideal spot by an anticlinal structure. R. IV–2211.

F. M. Anderson, defendants' chief expert, testified:

> The Elk Hills as a whole is rather a broad fold of dome-like character, in the main.

The anticline of the Elk Hills is a broader arch than that of the Buena Vista Hills. R. IV–2618.

The following practical and experienced oil men testified as to anticlinal structure of the Elk Hills:

Ira. M. Anderson, R. I–160; *S. G. Drouillard*, R. I–125; *F. J. Sarnow*, R. I–173–4; *M. S. Wagy*, R. I–179–180; *B. K. Lee*, R. I–227–232; *S. P. Wible*, R. I–320; *Colon F. Whittier*, R. I–469; *Frank Barrett*, R. I–480; *Chas. W. Lamont*, R. I–581, and many others.

The well defined anticlinal structure of the Elk Hills is conclusively shown.

The Circuit Court of Appeals said:

> The railroad company's geologists who were in the territory at various times during this

> period, . . . must have further concluded that the several uplifts are structural, that is they are the results of a folding or of foldings of the earth's crust, and they would have known that such a fold or anticline is a favorable formation for the accumulation and retention of oil. They would have determined that the principal dip of the country is northeasterly, and the general trend of the fold axes is northwesterly and southeasterly. R. VII–5–6.

Having shown the anticlinal character of the lands in suit, let us next consider its geological significance in relation to the occurrence of oil.

F. O. Martin, one of the government expert geologists and mineralogists, testified:

> In my opinion the most favorable indication that the Elk Hills must be considered oil lands is the structure of the territory being of an anticlinal character. It is a well known fact that along the summits of anticlines, petroleum tends to accumulate and that the anticlinal summits are the most favorable spots for petroleum to accumulate. R. I–613.

Dr. J. C. Branner testified that the general structure of the Elk Hills was perfectly simple and basing his opinion on his general knowledge of the behavior of petroleum in the rocks stated that—

> the conditions for the accumulation of petroleum were favorable along certain folds that were easily seen by any geologist,

and

> My opinion was that the Elk Hills was the most promising area for petroleum in that

> region in the vicinity of McKittrick. R. II–1003;

adding,

> The general structure of the Elk Hills is so favorable to the accumulation of oil in that region that if they had gone to five thousand feet and not found the oil, I should still advise a company to not give up hope of finding it. R. II–1008.

F. M. Anderson, the chief expert for the defendants, on being asked what sort of structure he regarded as favorable for the accumulation of oil answered:

> Usually an anticlinal structure is the most favorable.
>
> Q. And why is that so, Mr. Anderson?
>
> A. It facilitates the accumulation and retention of oil if the right stratigraphic conditions and other conditions are present.

Oil does not as a rule stay in the diatomaceous shales which are the source of oil, but passes out into an absorbing bed—a porous bed—where it accumulates. R. II–1011. In other words there must be a reservoir to contain the oil and the natural oil reservoirs are found in anticlinal structures.

The opinion of the Circuit Court of Appeals said:

> It is virtually conceded by the experts for the railroad company . . . that an anticline such as is found in the Elk Hills is an occurrence favorable to the accumulation and retention of oil, to which prospectors would hopefully look upon discovering the presence of oil in adjacent territory. R. VII–8.

(*b*) *Diatomaceous shales are the source of oil in California and the Elk Hills are situated just in front of the thickest portion of these shales.*

The generally accepted theory is that diatomaceous shales are the source of oil in California. Dr. Branner testified:

> The oil in the California fields originally developed from a series of beds that were known in geology as the Monterey shales—a series of rocks made up of the skeletons of diatoms that have accumulated in great quantities, especially about the southern end of the San Joaquin Valley. These rocks were given the name "Monterey Shales" because rocks of the same age and general character occur at Monterey in this State. It is a local name. II-1008.

He said, however, that it was a mistake to say that oil was all derived from Monterey shales.

> I instinctively, in looking over lands that I have been called upon to examine for petroleum, have looked about for these diatomaceous shales. Now, those diatoms, you can see from the nature of the case, have been accumulating for an enormous period of time, and they were not necessarily confined to the time in which those Monterey shales were being heaped up; so that we have older beds that have diatoms in them, and we have the later beds, and wherever I have found marine diatoms accumulated in considerable quantities, I have considered that there was a legitimate place to look for petroleum, whether they hap-

pened to be in that particular age or earlier or later. II–1010.

Let us now examine the evidence to ascertain what it shows with reference to the presence of these diatomaceous shales as related to the lands in suit.

Dr. Branner testified that these diatomaceous shale beds—

> down towards the southern end of the San Joaquin Valley, have a thickness of over five thousand feet, and a great thickness like that immediately would make a competent geologist prick up his ears, because he would say: "here is a chance for an enormous accumulation of oil." II–1012.
>
> The Elk Hills are situated right about in front of the thick portions of these Monterey shales. The thickest parts beginning up here some way north of McKittrick, come—oh, perhaps twenty miles or more, or so, northwest of McKittrick, and from there down to the vicinity of Maricopa, is the very area in which those shales have those great thicknesses, and these Buena Vista Hills and the Elk Hills lie right off towards the east, northeast, of those hills.
>
> I would not expect the shales under the Elk Hills to be so faulted as to influence the disadvantageous accumulation of oil there. II–1022.
>
> The general geology of the Elk Hills would lead me to infer that Monterey shale was under there and in great thickness. II–1020.
>
> It seems to me that the best chances for oil in the whole country in that region were in the

Elk Hills and the Buena Vista Hills. In forming that opinion I took into consideration the possibilities of the non-occurrence of oil resulting from the conditions of the sand and the pinching and hardness of the stratum, and other interruptions; I think that any reasonable geologist knows that there is a certain amount of risk in any kind of petroleum mining. He counts on that.

I should say decidedly, that the conditions in the Elk Hills are such as to warrant the ordinarily prudent man in the investment and expenditure of money with a reasonable expectation of developing a paying oil property. II–1024.

I should say that if any competent geologist, observing the natural waste of oil about McKittrick and the stage of development in 1900 or a year or two subsequent, and visiting the Elk Hills and making some examination of the structural formation, failed to form an opinion that the Elk Hills were oil in character and that there was an oil bearing zone underneath those hills, he did not understand his business. II–1004.

From my examination and knowledge of the neighboring regions, I have no reason whatever to believe that the oil bearing sands in the Elk Hills are thin, hard or pinched out. II–1023.

F. M. Anderson, defendants' chief expert, admitted that the Elk Hills lying out some distance from the line of outcrop are in a favorable position for the thickening of the diatomaceous beds. IV–2627.

Judge Dietrich stated in his opinion that the railroad company's geologists from observations readily made must have concluded that underlying the oil zone from McKittrick to Sunset there were shales in which it is supposed the oil originates and beds of sand into which it migrates, and that the principal dip of the country is northeasterly. VII–6.

(c) *The evidence shows that, prior to patent, the Elk Hills, of which the lands in suit comprise the center, contained well known seepages, blowouts, oil sands, deposits of asphaltum and other indications of oil.*

The testimony establishing the existence of indications of oil in the Elk Hills and the lands in suit will now be reviewed.

S. G. Drouillard, a practical oil man and miner for many years (R. I–114) testified that in 1874 he saw an oil seep in section 32 of 30–24, being the township just east of the lands in suit. "The sand at that time was wet from oil. It would adhere to the hand when you would squeeze it together. There was a prominent smell of gas." R. I–116. He found other seeps north and west in the Elk Hills. In 1899, with Chas. Lamont, Wagy and others, he made locations for oil in Midway, Temblor, McKittrick and the Elk Hills. They found on section 15 of 30–24 outcroppings of oil, it was quite a belt of sand cropping. On the strength of these oil seeps, they located the land. R. I–114.

Referring further to the condition of the seepage on 32 of 30–24, when he first saw it in 1874, Mr. Drouillard testified:

> It had a distinct odor. There seemed to be lots of gas in it; it smelled gas and sulphur. It was petroleum gas. I know what petroleum gas is. At that time the seep was wet. It would adhere to the hand and we would pick it up and ball it up and it would stick to your hand. We dug in it possibly four or five inches. There was no water there at that time. This was in the spring of 1874. I was at the seep once in a while afterwards while I was employed riding through the land and the seep remained in the same condition. The last time I saw it was in 1899, when I located it, at which time it was dry. We dug down about two feet into it. We found the gumbo—the sticky stuff—the same as I observed in 1874. It would adhere to the hand. R. I–121.

He showed some of the sand to W. E. Youle and he said it was oil sand. R. I–122.

He found the anticline on section 5 of 30–22, north of McKittrick. There is an oil sand cropping there and he located this. R. I–127. The anticline in the Elk Hills was running parallel with McKittrick, southeast and northwest. The formation of the Elk Hills was exactly like the balance of the country that had oil in it and competent oil men generally regarded it as oil land. R. I–117.

John R. Scupham, consulting engineer of the railroad directors (R. I–585), in a trip that he made into the Elk Hills at the direction of A. N. Towne, General Manager of the road, in 1887, found the oil

seepage in 32 of 30–24 which he testified was "the best oil seepage" that he had seen. R. I–587.

> It was a fresh seepage. Such indication could not be found in an exhausted oil sand. That it was an active seepage was not visible to the unassisted eye, but it showed freshness of the outflow of oil. The stain was a fresh stain. I could not detect actual oil, but the stain of oil was necessarily recent. There had not been a complete evaporation of it. R. I–597.

W. E. Youle, who had had the widest experience and greatest success of any of the practical oil men who testified in this case (R. I–540), testified that he was in the Elk Hills in 1898 and saw oil sands in there then and mineral locations were made as a result of his opinion from a personal observation of the Elk Hills. R. I–551.

> I made a chloroform and fire test of the oil sands I found in the Elk Hills. The result showed bituminous matter—gases. The Elk Hills was full of gas. It was burned with gas all over. It was evidence of a very volatile oil and evidence of an oil that might not have much asphalt base. R. I–552. . . .
>
> The territory from which I took the samples covered a mile, anyway, if not longer, about parallel with the strike of the country. I think I got some of the samples in a gulch. I got some on the hills. I found no asphaltum, but I found a sand that was percolated so much that you could put it on a fire shovel and at it a little and it would blaze. And in

making the chloroform test you could get particles of oil.

You could get oil from the territory I examined on those occasions. R. I–574.

My opinion was that that was a prolific oil field, and if I had had my way, I would have drilled there in preference to over at the McKittrick side. R. I–569.

I saw oil sand pretty near the summit of the Elk Hills. R. I–573. I found through the Elk Hills many evidences of gas. That was shown by the peculiar look of the formation that has been attacked by gas. . . . It is a grayish color and has a glassy appearance, and manifests itself everywhere where gas is escaping. . . . One or two places we put a can over it and let it accumulate, and then lit it. R. I–574. . . . The occurrence of gas would be an indication of oil. . . . It was not marsh gas. R. I–575.

I would have advised any company to furnish the money to the extent of $50,000.00 or $100,000.00 to develop that country. R. I–577.

John Jean testified that Chas. Lamont showed him some oil sands purporting to have been brought from the Elk Hills and Lamont took him out where these oil sands were found. It was a black coarse sand; dry oil three feet in depth and 100 feet in length and breadth. It looked like dry oil, burnt sand. R. I–127. Jean further testified that he reported this to L. G. Sarnow and to J. B. Treadwell who at that time was in charge of oil development

for the railroad at McKittrick. Sarnow was an oil driller. He took Treadwell and Sarnow to these oil sands. This was in 1899. They examined these oil sands at that place and both said it looked good and on the strength of that discovery Jean, Treadwell and Sarnow made oil locations on section 31 of 30–24 near the oil seep. This is the section adjoining the section on which the oil sand was located in 32 of 30–24. R. I–129.

L. G. Sarnow, who had large experience in the oil business and for a number of years had charge of the Kern River field for the Southern Pacific and drilled thirty wells there for Treadwell and three in McKittrick, testified that "the formation of the Elk Hills is shale, gypsum, and sand. It is substantially the same formation over in the eastern flank of the Temblor Range." R. I–134. John Jean showed witness some sand and he wanted to know where it came from. It was a coarse, pebble oil sand and witness was interested in it when he first saw it. Treadwell also saw it. Jean took witness and Treadwell to the place in the Elk Hills where he got the sand (section 32 of 30–24).

> Apparently it was a blow-out. There was an anticline that came to the surface in a way. It was just the same as you would find in Temblor. . . . On the strength of that showing, Mr. Treadwell, and Mr. Jean and I located the land. With reference to that oil sand, we did not locate just on the sand. I remember the sand was on one side of it and we seemed to figure that it came from the

McKittrick or Temblor and we took the land that we thought to be in the strike. R. I–135.

There were three traces of blowouts off a little further to the west, but not as prominent as these others. They might have been in section 30 to the north. I would not say, although it was right next to where we located. That is as near as I can get to it. I never had any tests made of that material. I didn't need any. I didn't think so. That was oil. I don't think it was possible that I was mistaken as to that containing oil, although I wouldn't say it is not possible. I have never known of similar blow-outs being tested by chloroform tests and showing nothing. R. I–141.

M. S. Wagy, an oil producer of many years experience, testified that he made locations for oil in the Elk Hills in 1899 or 1900. That he found a break or blow-out-seepage in the N. W. ¼ of section 32 of 30–24. The sand there was practically dead. There was an odor of oil in it; it was stained black; it was oil sand. S. G. Drouillard told him about the indications there and got him to go in there. R. I–175–6. He testified that he and his associates, Chas. Lamont, Mr. Packard and others located eight or ten sections in 30–23 and 30–24. He would throw the deposit he found there on the fire and it would make a smoke and smell and would blaze up after it was heated and give an odor of oil or gas. R. I–177. Later on tunnels or shafts about twenty feet deep were dug near those locations and showed indications of oil. R. I–178.

In 1899 he regarded the Elk Hills as good oil territory because "we had the same indications as we had where we were getting oil. Better indications than in the Kern River field where we were getting oil." R. I–180. Witness testified there were other indications of oil in the Elk Hills. There was an outcropping on section 26 of 30–23. R. I–181.

Samuel P. Wible became interested in the oil business in Kern County about 1898 and drilled wells in Kern River field, McKittrick, and Temblor. In 1902 he went into the Elk Hills to examine them and investigate their oil possibilities. He heard there was a seepage on section 32 of 30–24 and saw it afterwards.

> It is not what you call an oil seepage; it is what you call a brea bed. Evidently oil or gas had been in it at one time and dried out at the present time. R. I–318–9.

In 1903 or '04 Wible went through the easterly part of the Elk Hills with Josiah Owen, geologist for the Southern Pacific, who was engaged in examining and classifying its lands. He was going to show witness the outcrop on section 32 of 30–24. Owen had been in there before and "was very familiar with the formations of that country and particularly with reference to the Elk Hills, including township 30 South, Range 23 East." He testified he knew Owen regarded the Elk Hills as oil territory. R. I–320–1.

Witness testified that—

> there is a decided oil showing in what I would call the North extension of the Elk

> Hills. It is beyond the railroad tracks to the west. The evidence consists of oil sand crops in a number of places. As early as 1901 and before 1904 there were two oil wells on section 6, in Township 30 South, Range 22 East, and there was one on fractional section 1, Township 30 South, Range 22 East. These wells were on the same anticline; the one I refer to on the Elk Hills. R. I–321.
>
> The formation of the lands in Township 30 South, Range 23 East, and 30 South, 24 East, consisted of shale, sandstone and clay and Fuller's earth and gypsum. . . . In that formation, Fuller's earth and gypsum generally occur in conjunction with oil. R. I–322.

F. J. Sarnow, oil driller for the Southern Pacific, testified there are oil outcroppings in the Elk Hills on section 14 of 30–22.

> There are oil crops and sand on the east side of the railroad there on that section and there is dry oil and overflow on the west side of the wagon road.

He testified that there were four or five outcroppings of oil sands in the Elk Hills.

> I know of oil sands in the hills southwest of Miller & Lux's ranch. They were around in that country about section 25, of 30–23 and section 30 of 30–24. R. I–169.

Witness testified that he was then drilling wells in section 6 of 30–22 on the same anticline that runs through the lands in suit.

> This anticline is an outcropping of oils sands and blow-outs and the formation surrounds it. The formation is shale, clay and gypsum. The oil sands show stratification from which you can determine it is an anticline. R. I–173–4.

W. G. Sylvester testified that he first examined the Elk Hills in January, 1900, and found evidence of oil. Started at Headquarters Ranch and saw indications of what he would call asphaltum.

> It was a formation similar to the blow-outs they have at McKittrick. R. I–359.

It was four or five miles west of the ranch and a little south. R. I–356. This would be in 30–24. R. I–359.

> We found a rather recent oil seepage which was somewhat dried out although it would burn giving off an odor like coal oil or gasoline. We found this seepage in a gulch and we found asphalt high up on the hill. I located about ten or twenty claims at that time. R. I–356.

His locations extended into four townships, 30–23, 30–24, 31–23 and 31–24. R. I–357.

J. W. Kaerth, who assisted J. M. Duce in 1901 in making the official survey of the lands in suit, testified that their camp was on section 33 of 30-23 and he found evidences of oil and asphaltum over a good portion of that township. R. I–420. They called them asphaltum reefs or ridges. R. I–417.

> The surface of them was a sort of grayish color. As we broke into them they were quite

> black, but the outer surface was gray. The material would burn. We did burn it in our camp fires. R. I–420. I remember two or three small oil seepages on the land, what appeared to be oil seepages, small places on the land. R. I–418.

Witness testified that he made the field notes of the survey, transferred them into a book and turned them over to Mr. Duee. In the notes he wrote the general description of the land:

> I characterized the land as mineral. That was done by reason of what I observed on the ground, in the way of asphaltum reefs and oil seeps. R. I–423.

Attention has already been called to the plat of the official survey of 30–23, filed in the Local Land Office in May, 1903, setting forth that the surface of the ground in this township "shows a geological formation, with asphaltum exudations, that is regarded by experts as an almost sure indication of the presence of valuable petroleum deposits." R. II–686.

H. P. Dover testified that since 1901 he had been in the oil business and there was in 30–24 a kind of blow-out in a large gulch which showed indications of oil in both sides—discolored clay and some sand.

> It showed a stain of oil in my opinion We detected it a little with ether. R. I–461.
>
> There was a little seepage of oil in section 23 of 32–23. . . . It was not like the seepage in 32 in the Elk Hills. There was oil in 32 oozing out of the ground. R. I–467.
>
> I am interested in one other section in the

> Elk Hills; section 30, I think, 30–24. I think it is near the blow-out. R. I–462.

Chas. Brisco, who was engaged in the business of oil prospecting and development at McKittrick from 1897 to 1904, testified that he found—

> a small brea bed—dried oil, dried asphaltum—in the Elk Hills, in the east slope of the Hills about 12 or 15 miles south and east of McKittrick. This was about 1901 or 1902. Before 1904, witness took Josiah Owen, the geologist for the Southern Pacific, to this brea bed. It consisted of dry dirt and asphaltum, all mixed together. . . . It would burn as we tried it. R. I–335–6. There was dried oil there, that is, it was dried in the dirt and shale.

Mr. Owen said to witness that "it was a fissure that had been blown out there. . . . "This is good enough, hang on to it." R. I–340–1.

> Wherever you find brea it is an indication that there is an oil belt there or near there somewhere and it has been oozed out there by the gas. R. I–341.

N. C. Farnum, actively interested in the oil business for many years, testified that he made a detailed examination of the Elk Hills in 1899, looking for oil sands and other evidences of oil (R. I–495), and located an oil seepage in section 32 of 30–24 in a canyon.

> The sand at the oil seepage in 32 of 30–24 had been saturated with oil. I tested it. R. I–496.
>
> I am very well acquainted with the gap the railroad comes through to McKittrick. It is

> in 14—30–22. There is a well defined anticline there. . . . There is evidence of waste oil there; dry oil in the sand there. R. I–496.

W. E. Youle reported to witness that—

> there had undoubtedly been oil in this canyon, on section 32—30–24, and that the country between there and section 14, in 30–22, where the anticline is exposed by the action of the water, had the appearance to him of oil land. R. I–498.

Frank Barrett, sixty-seven years old, who has been in the oil business practically all his life (R. I–478), testified that he first visited the Elk Hills in 1899 to examine them and was paid $100 per day and expenses, and "found two or three places where there had been seepages, . . . it was not asphaltum, it was oil." R. I–479. He took some of the outcropping home with him and from the smell you could just get a little odor of oil, but when he crushed it and applied the chloroform test, he got traces of oil. This oil seepage was in 30–24 near section 23 and witness thinks it was in section 17. R. I–480.

> It was not in section 32–30–24. R. I–482. "I found some three or four seepages where oil had seeped out and caked. All of the lighter properties, of course, had evaporated. . . . There was one blow-out that I saw that was a live seepage with actual oil coming out of it. . . . It was in the Elk Hills. R. I–483.
>
> This is the seepage that witness located as being in section 17 of 30–24.

> I don't think the characteristics of the formation of the Elk Hills are at all dissimilar to the formation around McKittrick and not dissimilar to that at Taft and Maricopas. R. I–480.

Colon F. Whittier, who had been in the oil business fourteen years and the output of whose wells was one million barrels of oil the past year, testified that there is some asphaltum showing in the railroad gap in section 14 of 30–22, some oil sands—dry oil.

> I have examined the shales or sands around McKittrick. The shales are practically the same as the shales in the Elk Hills. R. I–469.

Parker Barrett, oil operator, who located the ground on which the Lake View *gusher* well was drilled, testified:

> I have been interested in lands in the Elk Hills. . . . I know of an oil seep in the northwest quarter of 32 of 30–24 and have seen it. . . . I had heard of this seepage a good many years. . . . That seepage assisted me in my knowledge in thinking that the lands were good oil lands. R. I–524.
>
> He testified that just about where the railroad passes the gap, section 14 of 30–22, there are asphaltum beds and brea. R. I–526.

F. O. Martin, one of the Government experts, testified:

> I found an oil seepage in the northwest quarter of section 32 of 30–24. That gas seepage is situated near a place where the anticline has been somewhat deflected, giving

> the hydro-carbons a chance to exude to the surface. The existence of that seepage was plain evidence to me that the lands must be underlaid by petroliferous deposits. Further, having seen and examined the oil exudations to the west, near the town of McKittrick, I found that the formation underlying said oil seepages near McKittrick extended easterly to the Elk Hills, and that no break being visible between the formation at McKittrick going easterly to the Elk Hills was evidence to me that the formation must be the same,—that is, that the formations overlying the oil sands at McKittrick and the formations overlying the oil sands at the Elk Hills are the same. . . . I have observed seepages in the Buena Vista Hills as denoted on the map. These seepages are in sections 10 and 11 of 32–24. The formation of the Buena Vista Hills and the Elk Hills are the same. R. I–613, 614.

Chas. W. Lamont, occupation, mining and prospecting since 1897, testified that he went into the Elk Hills in 1899 with his partner, S. G. Drouillard, who was an old prospector and found indications of oil. The largest was a blow out on section 32 of 30–24.

> We picked some of the shale and sand where the blow-out was in section 32. It was decomposed shale and there was strata of oil sand there, and the shale was very hot. . . . That formation after we got under the surface was very hot. In fact it was too

hot to handle pleasantly. The indications of oil there was just the oil sand and that shale we know goes with an oil formation.

On the north and along the line of contact from McKittrick towards Sunset right close to the lake, we saw live oil coming out of the ground, floating on the mud and water, towards the easterly and northerly end of the Elk Hills. R. I–580.

After seeing these indications of oil, I located seven sections of land right in what I took to be the anticline along there, and then I formed another company and located several more sections. I don't remember how many. The first seven sections located were located westerly from section 32, the original discovery, and extended over to 30–23. . . .

I concluded that section 32, where the oil sand was, was the top of the anticline, I have seen indications of oil in section 14 of 30–22, where the railroad goes through. . . . It looked like oil sand and brea. It would be what I took to be the west end of the anticline at that time. R. I–581.

Ira M. Anderson testified that he was fifty-two years old and had been actively engaged in the oil business ever since he was fifteen or sixteen years old (R. I–154), and that he examined the Elk Hills in 1899 and 1900 and found there shale, gypsum, oil sand and brea:

I made chloroform tests of the earth and rock and shale that we found in the Elk Hills. The tests showed oil and oil sand. As to my opinion

> as to whether or not the Elk Hills was oil producing territory, the formation was there to show that it was. The shale is there, the clay is there and the oil sand is there. I found blow-outs in the Elk Hills. There was a place across from Miller & Lux's headquarters where the gas blew out. . . . It was on the east side of the summit line of the Elk Hills, pretty near the top of the line or ridge of those hills. R. I–155–6.

Dr. J. C. Branner testified:

> Near the middle of the northwest quarter of section 32–30–24 about on an anticline are oil seeps. . . . The seepage was important as an indication of what was underneath. R. II–1015.

F. D. Lowe testified that he went into the Elk Hills in 1900 for the purpose of making some oil locations. He had at that time heard of the discovery of oil evidences in the Elk Hills. Had heard various people speak of the blow-out in 32 of 30-24. Three hundred yards due north of the northeast corner of section 11 of 31-24 he found what appeared to him to look like oil sand in a gulch. He found a similar indication in the center of section 2 of 31–24 and a third indication half a mile east of the section line of section two.

> These oil sands showed stains and looked as though they were very much dried. . . . We afterwards made locations. R. I–146.

He testified that they incorporated a company, levied an assessment and erected an eighty foot

derrick at the N. E. corner of section 11 of 31–24, near where he had made the first discovery.

> We got down about five hundred and sixty feet and struck small showing of oil and at various times we got gas. We piped the gas . . . and cooked with it. R. I–147.
>
> When the bit would come up, little drips of oil would break and run down in a little streak. I am certain that it was oil. R. I–150.
>
> When we were down about five hundred feet we struck gas and we lit a paper and dropped it in the casing and when it reached down a few feet there was a terrific explosion. R. I–153.
>
> I found the same character of formation in the five hundred and sixty foot well that we drilled out there on section 11 as in the Kern River Fields . . . where the wells were paying wells. R. I–147.

J. I. Wagy testified that in 1900 he discovered a seepage in section 32 of 30–24. It was a small outcropping of sand in the bottom of the canyon. He took some of the sand to H. A. Blodget of the firm of Jewett and Blodget, which had extensive holdings in the Sunset field and Blodget sent his superintendent and oil expert, W. E. Youle, to examine the seepage. On the strength of this discovery, Wagy, Blodget, Youle and others formed a company and located for oil a number of sections in the Elk Hills in 30–23, 31–23, 30–24 and 31–24, including the top of the hills, embracing the lands in suit. R. I–239–243.

Chas. F. Haberkern testified that he was engaged in the development and mining or prospecting of lands in the Elk Hills and vicinity and was a director and one of the original locators of the Eight Oil Company in which Josiah Owen and E. T. Dumble were stockholders. R. I–349.

In August or September, 1904, he went all over the Elk Hills with Owen.

> I know of an oil showing, or out-crop, or gas blow-out, in the northwest quarter of section 32 of 30–24. At that time Mr. Owen and I visited that oil seep. . . . My associates and I, in pursuance of that examination made by Mr. Owen and me, later located lands in 30–23. We located the even numbered sections. The reason we didn't locate any odd numbered sections at that time, although I wanted to do it, when Mr. Owen and I went out again he said that he was working for the railroad company and not to take any railroad land. R. I–350.

B. K. Lee testified that he had been engaged in the oil business at McKittrick continuously since 1900 (R. I–224) and that "on section 2 of 31–23 there was an oil seepage" (R. I–225) and that—

> there are asphaltum indications on section 14 of 30–22. On the north flank of the anticline on this section there is a bed of coarse gravel. . . . A superficial examination shows nothing but yellow gravel, but when you break into it, it is covered with dry oil. R. I–230.

A. C. Veatch, the Government expert, referring to the seepage or gas blow-out in section 32 of 30-24, testified:

> I examined the seepage on two occasions and found a stained sand exposed at intervals for several hundred feet, on the west side of the gulch in which it is situated, and in one or two places on the east side. This sand contains some free sulphur. Tested with chloroform it gives no oil. The sand shows some carbon,—particles of carbon,—and it is my conclusion that it represents an escape of gas from the oil-bearing zone, the gas carrying some oil with it; that this oil has been deposited in the sand together with sulphur coming from the gas and that it has been fired—the gas has been lit—and that owing to incomplete combustion a little carbon has been left in some of the sand, which makes it probable to my mind that any one or more persons in the past could have tested that and gotten positive results of oil, if the oil had not burned out. It would probably be also a volatile oil that would evaporate. If there were other earth movements, it would be possible, I think, at some future time, to get a positive test of oil. R. II-712.

While Veatch's test showed no oil in 1912, yet it corroborates the evidence of Youle (R. I-552), Farnum (R. I-496), I. M. Anderson (R. I-155-6), H. P. Dover (R. I-461), Barrett (R. I-480) and others that when they made their tests prior to the patent with ether, oil was found. The evidence estab-

lishes the fact that the seepage was often set on fire which burned out the oil owing to incomplete combustion and left particles of carbon, found in the sand by Veatch.

The defendants offered three geologists, Ochsner, Anderson and Taff, all of whom had been for a number of years in the employment of the Southern Pacific or its subsidiary companies, in an effort to show that the seepage in section 32 of 30–24 was not an oil seepage.

W. H. Ochsner, geologist of the Kern Trading and Oil Company and the Associated Oil Company, both subsidiaries of the Southern Pacific, testified:

> I examined the occurrence to see just what its appearance might be and I came to the conclusion very rapidly that it was an organic occurrence and not an oil seepage by merely looking at it, from the relation between this formation and the close and impermeable strata exposed underneath. I did not burn it nor test it with chloroform. R. IV–2215.

F. M. Anderson, who went to work for the Southern Pacific in 1903, testified that when he was preparing for this trial, he first visited this seepage on 32 of 30–24 and he gave it as his opinion that it was "a gas seepage." R. IV–2474. "The gas is hydrocarbon gas and partly sulphuretted hydrogen gas . . . not necessarily petroleum gas. . . . Largely, I think, methane gas." R. IV–2474–5. He said he tested the sandy material with chloroform, benzine and other reagents and that the

chloroform and benzine showed no evidence of asphaltum, while the other solvent showed a dark stain in the solvent, which he couldn't explain. R. IV–2476–7.

J. A. Taff, assistant geologist of the Southern Pacific since 1909, testified that this blow-out was not a gas seepage, as Anderson had testified it was. Taff admitted that he was not a chemist and had the sand tested by his assistant, A. J. Heindl, who was not examined, and they got no perceptible indication of color in the chloroform indicating the presence of bituminous matter. It burned slowly but he couldn't see any indication of petroleum in the alleged seepage. R. V–2762. He admitted that natural gas usually is closely associated with petroleum and in part has the same origin (R. V–2836), and that methane gas forms the chief characteristic of natural gas. R. V–2828. This explains why Anderson could not say that it was not petroleum gas, but that it was "not necessarily petroleum gas."

Chas. H. Allison, one of defendants' witnesses, admitted on cross-examination:

> I saw specimens of sands taken from the side hills and from the gulches and the canyons from the outcroppings in 30–23 and believed in the mineral and oil character of the land as prospects and I contributed money to set up the stakes and give notice of our claims upon the ground. Several of my co-locators went out on the land and placed the location notices

> and after examining the land they returned and brought with them and showed me numerous specimens of bituminous rock and a mixture of that rock and asphaltum which, when a match was applied, burned indefinitely. R. III–2001.

L. E. Doan, another witness for defendants, admitted that there was an outcropping of oil sand in sections 26, 22, 16 and 15 of 30–23, and that "it extends three miles practically right on the outcrop." R. IV–2074.

J. B. Treadwell, who was in charge of oil development for the railroad from 1893 to 1903 and who recommended the withdrawal of lands from sale because of their probable oil contents, visited the seepage on 32 of 30–24 in 1899 and he said it "looked good" and he and John Jean and L. G. Sarnow located for oil on section 31 of 30–24 near the oil seep. R. I–128–9.

Treadwell made out the notices (R. VI–3426) and told L. G. Sarnow it was good for oil. R. I–135. He also told F. J. Sarnow he thought there was oil in the Elk Hills. R. I–165.

Josiah Owen, who was in charge of the railroad oil lands from 1903 to 1909, was dead at the time of the taking of testimony but the reports and maps made by him and the evidence of a number of witnesses establish the fact that prior to the patent he was well acquainted with the seepage on 32 of 30–24 and the other indications of oil in the Elk Hills and believed they were oil lands.

Owen's reports and maps have already been referred to as well as the testimony of S. P. Wible (R. I–321), Chas. Brisco (R. I–340) and others to the effect that each of them visited the seepage on 32 of 30–24 with Owen and that he expressed a favorable opinion as to the value of the lands in suit as oil lands.

The seepage or blow-out on 32 of 30–24 was so well known that the following witnesses for defendants admitted they had heard of it though they had not been to it; *E. J. Miley* (R. III–1742); *R. K. Howk* (R. III–1844); *B. M. Howe* (R. III–1906), and *Chas. T. Burks* (R. IV–2067).

The foregoing excerpts from the testimony conclusively establish, we submit, the existence of seepages, gas blow-outs, oil sands, brea, asphaltum and other indications of oil in the Elk Hills and on the lands in suit. The well known outcrop or seepage on section 32 of 30–24 while not on the lands in suit, is in the township in the Elk Hills lying just east of the lands in suit.

The existence of the foregoing seepages, oil sands, gas blow-outs, asphaltum and brea in the Elk Hills, indicated the presence of oil in the lands in suit, which lie in the very center of these hills. These conditions as well as their significance were well known prior to patent.

W. E. Youle testified:

> In California the existence of oil sands is always a good indication of finding oil in paying quantities. I will make the statement

> broad. You show me an oil seepage with a proper development and I will show you an oil field; and if you can find any instance it is not so, it is something I don't know of. From my experience in the California field, I will say that such an oil sand indication is always an indication of the presence of oil in paying quantities. I make that statement unqualifiedly and I know of no exception to it whatever. R. I–556.

W. H. Ochsner, one of defendants' geologists, testified:

> A cropping of oil-sand is a beginning of first hand evidence that petroleum is present in the neighborhood and it is the first step in the study. It would call forth the first suspicion, the first interest. A cropping of oil sand which shows unmistakable evidence of having been impregnated by petroleum or bituminous matter is absolute evidence to the mind of any competent geologist that if oil does not exist in that formation now, it must have existed at some time in the past. That is unequivocally true. R. IV–2212.

Reference will now be made to the testimony showing existence of outcrops of oil bearing sands, seepages and other indications of oil, not in the Elk Hills themselves, but in the vicinity of the lands in suit.

(*d*) *Oil bearing sands, seepages, asphaltum and other evidences of oil in great abundance in the vicinity of the lands in controversy.*

Having considered the evidences of oil in the Elk Hills, attention will now be directed to the testimony

showing the indications of oil in the vicinity of the Elk Hills, that is, in the McKittrick, Midway and Sunset fields and in the Buena Vista Hills.

Judge Dietrich said:

> The railroad Company's geologists, who were in the territory at various times during this period doubtless noted oil seepages and oil sand outcrops for many miles along the line of the McKittrick development and in several places along a line or zone westerly from the Midway field,

and that—

> it is virtually conceded by the experts for the Railroad Company that in the McKittrick-Midway-Sunset zone it was known that there was oil in considerable quantities, susceptible to profitable extraction. R. VII–8.

Prior to patent there were 281 producing oil wells between McKittrick and Sunset, a distance of 30 miles, but before referring specially to the oil development, the Court's attention will be called briefly to the evidence showing the seepages, outcroppings of oil bearing sands and other indications of oil in that vicinity as they existed prior to the date of the assailed patent.

McKittrick-Midway District.

Township 30–22: McKittrick is in section 21 of this township which adjoins and lies west of the lands in suit. The Circuit Court of Appeals found that "particularly in the McKittrick field the presence of oil in large volume reasonably near the surface and economically susceptible to extraction was abundantly shown."

Chas. Brisco testified:

> I first went to McKittrick in 1897 or '8 and I remained there until August, 1904. I know about the oil seepages or oil indications in and about the town of McKittrick and the hills there. Those indications consisted of oil running out of the ground and seeping, and gas pockets and places where the gas was bubbling up. When it would rain the gas would bubble up and oil would run out down the hill. I guess I noticed this around there in a hundred places. I also noticed evidence of waste of oil there in former times. There was what we called a Tar Flat . . . about half a mile south and east of McKittrick. R. I–335.

H. M. Shreve testified that he first became interested in oil properties near McKittrick in 1888 or 1889 (R. I–446), and that "in various parts of 30–22, right in the immediate vicinity of McKittrick, there are large showings of liquid asphaltum oozing from the ground." R. I–455.

H. A. Blodgett testified that he was "a pioneer" in the McKittrick, Sunset and Midway fields and made locations for the purpose of drilling for oil beginning ni 1878.

> These locations commenced northwest of McKittrick and extended three or four miles right down both sides of what is now McKittrick, right on down the strike Southeast. By strike I mean strike or outcrop, the strike or the break that was evidenced by oil seepage. These oil seepages were visible, very much in evidence and they extended for four

> or five miles along the strike or break Northwest and Southeast. That was the general strike of the oilbearing formation through that country. R. I–361.

Witness helped organize in 1893 and was a director of the Standard Asphalt Company, a subsidiary of the Southern Pacific Railroad Company, which operated at McKittrick. R. I–363.

Ira M. Anderson described the places in the vicinity of McKittrick where he "found extraordinary evidences indicating the country to be an oil country" in 1899 or 1900. He found asphalt, oil, sand and gas on 34 of 30–22.

> The sun would melt the asphalt and it raised up and in the center of it there would be gas coming up and if you lit it, it would come up like a candle. This asphalt covered over there for probably an acre. These conditions were known in general to the populace around there at that time. R. I–155.

He found deposits of asphalt all over the flat going east from McKittrick in sections 22 and 26 of 30–22 and similar deposits north of that in the Elk Hills. R. I–161–2.

B. K. Lee testified to outcroppings of oil sands on sections 8, 17, 18, 20, 28, 29, 34 and 35 of this township (R. I–224–5) and *S. G. Drouillard* on section 5 of this township. R. I–127.

John Dean (R. I–131), *F. J. Sarnow* (R. I–169), *C. F. Whittier* (R. I–470), and many other witnesses described the seepages, asphaltum and oil sands and other indications of oil in 30–22.

In reciting the testimony as to the evidences of oil in the Elk Hills, reference was made to the evidence of the seepage in the railroad gap in section 14 of 30–22, which section is at the northwest end of the Elk Hills (R. I–321) and a mile west of the lands in suit.

Townships 30–23 and 30–24: The testimony as to the indications of oil in 30–23, in which the lands in controversy are situated and in 30–24 lying just to the east was referred to in considering the evidences of oil in the Elk Hills.

Townships 31–21, B. K. Lee testified to the outcroppings of oil sand in this township and on the line of contact with the Temblor Range R. I–225.

C. F. Whittier testified to a large oil outcropping or seepage on sections 14 and 24 of this township. R. I–470.

Township 31–22: This township corners with the lands in suit on the southwest. *C. F. Whittier* testified as to an oil outcropping on section 19. R. I–470. *Ira M. Anderson* testified that he found asphalt and oil sand in section 2. R. I–155.

W. E. Youle, testified to a quite prominent seepage two and one-half or three miles southeast of the large seepage right at McKittrick. R. I–361.

Township 31–24: This township corners with the lands in suit on the southeast and is in the Elk Hills and reference has already been made to the testimony of *F. D. Lowe* as to the oil sands in this township and the well drilled by him on section 11 showing oil and gas which was used for cooking. R. I–146–7.

Township 32–22: This township is six miles southwest of the lands in suit. *C. F. Whittier* testified as to oil seepages on sections 1 and 2.

Township 32–23: This township is six miles south of the lands in suit. *S. G. Drouillard* testified:

> I know of seeps in 32–23 near the corner of 23, 24, 25 and 26, in the Midway. That is where I located. We found great blocks of asphaltum there. We lifted some of them up and there was oil on the under side of them, seeping out. You could turn up a block of it and find the drips of oil. R. I–116.

B. K. Lee testified to outcroppings of oil sand on sections 21, 22 and 26 (R. I–225) and *C. F. Whittier* testified that there was an oil seepage on section 6 and "several others between there and Maricopa" (R. I–470), which is in the township south of 32–23.

Buena Vista Hills.

Township 32–24: The Buena Vista Hills cover a part of this township. *H. P. Dover* testified that he saw a gas blow out in 1900 on section 11, "two or three hundred yards long where it crops out" and the discovery of the gas blow-out influenced him in making a location there. R. I–462.

Parker Barrett saw a gas blow-out on this section (11) in 1901. R. I–525.

B. K. Lee testified that in 1903 Josiah Owen mentioned an oil sand cropping in section 11 and said that he found evidence of gas in eleven places in the Buena Vista Hills. R. I–230. Section 11 is near the big Honolulu well.

C. F. Whittier testified that in 1903 he found natural indications of oil in the Buena Vista Hills. Found a prominent cropping called a blow-out and he set it on fire and it burned two weeks. R. I–470.

F. M. Anderson, defendant's geologist testified in September, 1903, he and Josiah Owen went into the Buena Vista Hills as far as section 11 of 32–24 and examined various outcrops in that vicinity and made estimates of the thickness of the strata exposed about the Hills and noted the deposits in section 11 and took them to be deposits of asphaltum. R. IV–2403. Again in 1908 he visited these deposits and still believed them to be asphaltum but in 1910 when he was examining them for the purpose of this trial, he doubted whether they were. He said these deposits differed chiefly in quantity from the well known gas blow-out or seepage on 32 of 30–24. R. IV–2478.

Sunset District.

W. E. Youle testified that in 1890 he examined the Sunset Field, which is about fifteen miles south of the lands in suit and found springs of oil and outcroppings. There were seepages in many places along the line of contact with the Tremblor Range and around Sunset, the evidence of these was very plain from three to five miles and a great deal of money was invested there on his opinion. R. I–544–5.

Ira M. Anderson testified that in 1901 he examined the West Side fields:

> The Sunset, McKittrick and what has since become the Midway Fields are all about the

> same. I found oil sands all through there and oil seeping out of the ground and gypsum all through that country. Where you find gypsum you will find oil. I found that in Sunset. At that time they were producing oil in Sunset and McKittrick. Between McKittrick and Sunset the formation was about the same. There were these blowouts through there, asphalt and oil, and places where you could see what was asphalt around there and gas coming through the center of them. That condition extended generally from McKittrick to Sunset. R. I–154.

John Jean (R. I–131), *F. J. Sarnow* (R. I–169) and other witnesses testified to seepages in the Sunset Region.

H. A. Blodgett testified that in July, 1904,

> there was practically a continuous proven field from the southeast of Sunset to four or five miles Northwest of McKittrick barring a slip that would be now from Fellows to McKittrick. That slip is now proven territory. R. I–362.

Much other testimony could be recited to show the oil indications of the lands lying practically on all sides of the lands in suit but enough has been shown to demonstrate their oil character and these known geological conditions plainly showed that these lands were chiefly valuable for their oil contents.

This brings us to a consideration of the actual development for oil prior to the date of the assailed

patent on the lands from McKittrick to Sunset and also in the Kern River Field.

(e) *Oil development in the McKittrick, Midway, Sunset, and Kern River Fields prior to patent.*

H. A. Blodgett testified that on July 1, 1904, there was a continuous chain of wells from a point several miles southeast of Sunset up into the Midway and then there was a gap of two miles and then operations extended through McKittrick into the Temblor Hills. R. I–362.

The Government offered in evidence as Exhibits HA, HB and HC, the Barlow and Hill maps of the McKittrick, Midway and Sunset Oil Fields, published prior to August 31, 1904, giving a correct picture of the oil conditions in these Fields at the time (I–109), *W. H. Hill* testifying that "they are based on my personal visits to each and every claim." I–111. Two-thirds of these maps were sold in the oil fields in Kern County and some to the Southern Pacific Company. R. III–2033.

The Circuit Court of Appeals found—

> that in the aggregate there were in these three fields (McKittrick, Midway and Sunset) in 1904 between two and three hundred wells (part of them producing) and particularly in the McKittrick field the presence of oil in large volume reasonably near the surface and economically susceptible to extraction was abundantly shown. R. VII–5.

These maps and other evidence show that 281 wells had been drilled from Sunset to McKittrick, a distance of about thirty miles. R. IV–2137.

The map, Exhibit HA, of the McKittrick Field shows twenty-two producing wells in section 20 of 30–22, one in section 27, two in section 28, seventeen in section 29, six in section 34.

These forty-eight wells are from three to four miles west of the lands in suit and there were many other wells in this township as well as in 30–21.

It will be recalled that Exhibit 157, being the map made in 1903 by Josiah Owen, the railroad geologist, shows an anticline running from section 6 of 30–22 through the lands in suit and Barlow and Hill's map, Exhibit HA, shows two wells on this section and Owen, in his report of March 25, 1903, to E. T. Dumble, transmitting Exhibit 157, said "producing wells ought to be found along this exposure."

The Kern River Field, east of the lands in suit, was developed in 1899, and at the time Barlow and Hill's map of this field, Exhibit HD, was published, contained several hundred producing wells. Owen was of course, familiar with this field and in his report to Dumble of March 25, 1903, he wrote:

> I have traced the outcrop of the Oil Horizon all the way to Sunset Oil Field and find that there is but the one Oil Sand and I believe it will be possible to trace the same Horizon to the Kern River fields. There are several reasons for believing that they all belong to the same zone. R. III–1620.

(f) The evidence demonstrates that the dip of the oil sands and strata exposed in the seepages and outcroppings for thirty miles along the oil development from McKittrick to Sunset is towards and under the lands in controversy.

Having shown from the foregoing testimony the long line of seepages, oil sands and wells extending from McKittrick to Sunset, and just a few miles west of the lands in suit, the geological connection between these lands and the lands in suit will now be taken up and it will be demonstrated that the dip of the oil sands and strata exposed in the seepages from McKittrick to Sunset is towards and under the lands in controversy.

It will be conclusively shown that the oil horizon, that is, the oil bearing strata shown at the outcrop, passes through the lands in controversy, as in the *Diamond Coal* case "the coal horizon—meaning the coal bearing strata shown at the outcrop but not necessarily the coal—passed through the lands in controversy." 233 U. S. 246.

On this phase of the case, the opinion of the Circuit Court of Appeals stated:

> The Railroad Company's geologists, who were in the territory at various times during this period, doubtless noted oil seepages and oil sand outcrops for many miles along the line of the McKittrick development and in several places along a line or zone westerly from the Midway field. From observations readily made they must have concluded

> that underlying this zone there were shales in which it is supposed the oil originates, and beds of sand into which it migrates. They must have further concluded that the several uplifts are structural, that is, they are the results of a folding or of foldings of the earth's crust, and they would have known that such a fold or anticline is a favorable formation for the accumulation and retention of oil. They would have determined that the principal dip of the country is northeasterly, and the general trend of the fold axes is northwesterly and southeasterly. R. VII–5–6.

And further in that opinion it is said:

> It is virtually conceded by the experts for the Railroad Company that in the McKittrick-Midway-Sunset zone it was known that there was oil in considerable quantities, susceptible to profitable extraction, and that an anticline such as is found in the Elk Hills is an occurrence favorable to the accumulation and retention of oil to which prospectors would hopefully look upon discovering the presence of oil in adjacent territory. They also concede that it then appeared probable that some oil would be found, but not in sufficient quantities or near enough the surface to warrant extraction and marketing. R. VII–8.

A. C. Veatch testified that along the east flank of the Temblor Range for many miles there are a series of porous beds and associated clays, well designed on the one hand to afford a reservoir for oil and on the

other hand to prevent undue leakage, and the seepages show the persistence of the oil saturation in these porous beds. R. II–701.

> They dip, in a general way, towards the San Joaquin Valley. The general slope is interrupted by folds which are, roughly, parallel to the main fold of the axis of the Temblor Range, and, forming these folds, rise as groups of hills above the surrounding country, and their structural character is evident even to the most casual observer. R. II–702.

These folds which he referred to are the Elk Hills and Buena Vista Hills, which he described as "elongated domes of ideal structure for oil accumulation" and "both fall within the proven area from geologic determinations." R. II–702–3.

Mr. Veatch further testified:

> If any corroboration were needed, . . . it is found in the seepages in the Buena Vista Hills and in the Elk Hills; and any questions which might arise with regard to the persistence of the oil, as shown by these seepages, are conclusively set aside by a great series of wells which had been sunk prior to 1904 down the dip from these seepages and connecting, showing that the seepages represented oil in commercial quantities. R. II–703.

At page 702 he stated that the seepages extended along the Temblor Range fifteen miles and the oil horizon extended eastward 7½ miles, but on page 719 he stated that his statement was an error and explained that the distances are thirty miles and fifteen respectively.

> In my determination of the region at the time of the examination, I laid it off on a map on which the scale is approximately two miles to the inch. I measured it as fifteen inches and seven and a half inches and the note was made in inches and transposed to miles inadvertently. R. II–719.

F. O. Martin testified that having examined the oil exudations and seepages near McKittrick, he found that the formation underlying said seepages extended easterly to the Elk Hills and no break being visible in the formations going easterly was evidence that the formations overlying the oil sands at McKittrick and the formations overlying the oil sands in the Elk Hills must be the same. R. I–613–4.

Dr. J. C. Branner testified:

> I should say that if any competent geologist, observing the natural waste of oil about McKittrick and the stage of development in 1900 or a year or two subsequent, and visiting the Elk Hills and making some examination of the structural formation, failed to form an opinion that the Elk Hills were oil in character and that there was an oil bearing zone underneath those hills, he did not understand his business. R. II–1004.

Additional excerpts from the testimony of Dr. Branner and others bearing on the geological deductions were made in this brief when considering (1) the analogy between coal and oil; (2) the anticlinal structure of the lands in suit; and (3) their situation with reference to the diatomaceous shales.

W. E. Youle testified that the formation at Sunset dipped into the valley and that the conditions around McKittrick were about the same as at Sunset. R. I–544–5.

> The McKittrick side was dipping towards the Elk Hills and the asphalt at the McKittrick side had faulted and broken; but on the Elk Hills side it was not broken so much but folded up, and I made up my mind that there was a fountain head of oil for all this alike. R. I–579.

In 1893 C. P. Huntington and other officials of the Railroad visited McKittrick. Youle was at that time superintendent of the Standard Asphalt Company, a subsidiary of the railroad company. He drove Mr. Huntington around and they went on the west side of the Elk Hills and he explained to him that the formation was "dipping towards those Hills" and that he did not believe that that country was a "shoe string at all but it was a great big field." R. I–550–1.

W. H. Ochsner, one of the defendants' geologists and a former employee of the Kern Trading and Oil Company and the Associated Oil Company, both subsidiaries of the Southern Pacific, admitted that he first formed an opinion of the Elk Hills as a possible or probable oil bearing territory as a result of his work in 1907. R. IV–2203. He further admitted:

> Assuming that there is a cropping of oil-sand showing at some date in the past the

> waste of bituminous matter in the Elk Hills, and taking that assumption into consideration in connection with the correlation of the oil-sand outcroppings along the McKittrick front and down as far as Sunset where the valley makes a contact with the Temblor Range, I would say that the facts would be a strong element in favor of warranting a competent geologist to advise a man to invest money there with the hope of producing oil property, and I believe many competent geologists have advised the investment of capital on less evidence than that. R. IV–2211.

Ochsner testified that Josiah Owen said:

> If there is a spindle top in California it is on top of the Buena Vista Hills. By that he meant that the dome was filled with oil (R. IV–2210), which would produce gushers in great quantity. R. IV–2213.

E. T. Dumble, in his letter of September 21, 1903, to Julius Kruttschnitt, enclosing maps showing the lands of the Railroad Company considered valuable for oil purposes to be included in the lease to the Kern Trading and Oil Company, wrote:

> The attached maps shows these under three heads: first, oil lands proven or practically proven, colored red; very probably oil lands, colored green; probable oil lands, colored blue. Of the oil value of the first two classes there is very little doubt; the third depends in part upon the continuance of normal dips and conditions, but in addition, it represents untested anticlinals which show good indications of oil. R. V–2913.

Attention is called to the concluding part of this extract in which it is said that the oil value of the third class depends in part upon the continuance of normal dips and conditions. One of Owen's maps shows the dips from the East flank of the Temblor Range toward the lands in suit.

Josiah Owen, in his report of March 25, 1903, to E. T. Dumble said:

> The fold north of the McKittrick and runnin[illegible] nearly parallel passes through Sec. 5–9 between 11 & 15 through 13 of Town. 30, R. 22. This fold exposes the oil sands in several places and in some of the exposures the sands are strongly impregnated with Asph. and producing wells ought to be found along this exposure. R. III–1617 . . . In the direction of Midway I find that the McKittrick fold flattens out in the valley but other hills further on in the same direction would indicate that it may extend to near the Kern Lake. R. III–1617–8.
>
> I have traced the outcrop of the oil Horizon all the way to Sunset Oil field and find that there is but the one Oil Sand and I believe that it will be possible to trace the same Horizon to the Kern River fields. There are several reasons for believing that they all belong to the same zone. R. III–1620.

These extracts from this report show that Owen knew the relation of the lands in suit to the seepages and oil sands extending from McKittrick to Sunset.

The Elk Hills anticline as traced by Owen, on Exhibit 157, "is the anticline or fold north of McKittrick and running nearly parallel." He predicted producing wells ought to be found along this exposure and Barlow and Hill's map of 1904 shows that there were two oil wells on section 6 of 30–22 through which this anticline runs and which continues on through the lands in suit.

V.

THE TESTIMONY SHOWS THAT EXPERIENCED, PRACTICAL OIL MEN GENERALLY BELIEVED, PRIOR TO THE DATE OF THE ASSAILED PATENT, THAT THE ELK HILLS WERE VALUABLE FOR THEIR OIL CONTENTS.

In the *Diamond Coal* case the Court said (233 U. S. 245):

> The expert for the Government proceeded upon the theory that, when the known surroundings are such that practical coal men would invest in particular lands for coal mining or advise others to do so, those lands are to be deemed coal lands, even though coal has not as yet actually been disclosed within their limits. And having in mind the outcropping coal bed, the direction and inclination of its dip, the character of the rocks with which it was interstratified, the quality and thickness of the coal at the outcrop, the proximity of the lands to the outcrop and the topographical and structural features of the vicinity, he gave it as his opinion that the coal bed extended into and through the lands in

> question and that practical coal men would regard the lands as valuable for coal and invest in them as such. He accordingly pronounced them coal lands within his acceptation of that term.

The testimony shows that practical oil men and experienced operators, prior to 1904, generally entertained the belief that the lands in controversy were valuable oil lands.

W. E. Youle, who, the defendants in their brief filed below, admit "was one of the oldest and most experienced experts and operators," testified "my opinion was that that [the Elk Hills] was a prolific oil field and if I had had my way, I would have drilled there in preference to over at the McKittrick side" (R. I–569), and that he had no reason to change his opinion since. R. I–554–5. That he regarded the Elk Hills as a "great big field" as early as 1893 when C. P. Huntington visited that region and Youle gave him his reasons for believing it valuable oil land (R. I–550–1), and that he would have advised any company to furnish the money to the extent of $50,000 or $100,000 to develop the lands in controversy with the reasonable expectation of developing a paying oil property. R. I–577. Youle found oil sands in the Elk Hills and he made "a chloroform and fire test" and the result showed bituminous matter gases. R. I–552. He and his associates located for oil in 1898. R. I–551.

S. G. Drouillard, who had "mined most of his life" and who made locations in the Elk Hills in 1899,

testified that they were "generally regarded by competent oil men as oil territory in 1899" R. I–122, and "that they were supposed to be in the oil belt." R. I–124. Township 30–23, in the middle of the Elk Hills, was regarded by all the people as good oil territory. R. I–125.

H. A. Blodgett, a member of the firm of Jewett and Blodgett, which was part owner of the Standard Asphalt Company, a subsidiary of the Southern Pacific Company, was a pioneer in the West Side Oil fields and was one of the largest and most experienced operators in those fields. R. I–360. He testified that he believed that the indications in the Elk Hills were good and he and his associates made a number of locations in there in 1899, and kept them up for six years and spent a good deal of money on these locations (R. I–367), and intended to develop them. Youle was superintendent for many years for Mr. Blodgett's operations at Sunset and at McKittrick, where he was in charge of the Standard Asphalt Company. R. I–366.

N. C. Farnum testified that he had been almost continuously in the oil business in Kern County since 1899. Made a detailed examination of the Elk Hills in 1899. R. I–495.

> I formed the opinion absolutely that the territory in the Elk Hills was oil territory at that time. I have had no reason to change that opinion since and still believe it to be oil territory. R. I–499.

He and his associates located lands at that time in the Elk Hills.

> I know my associates did not, at that time, regard the land as merely a prospect; we considered it better than a prospect. We spent a good deal of money there, and a man don't usually spend a great deal of money on a prospect. We were assured in our own minds as well as we possibly could be without drilling, that it was an oil territory; and I still consider it as such. R. I–510.
>
> Knowing all the conditions then existing, we would have sunk a well for the reason that we had determined to drill a hole in the Elk Hills no matter what it cost us, as far as we could go and as far as money would go. That was the absolute determination, not to be deviated from, until the Government withdrew the land. R. I–512.

Frank Barrett, sixty-seven years of age, has been in the oil business all his life. Brought in the first paying well in the Coalinga field. President of two companies and interested in others. Was employed in 1899 and paid $100 per day and his expenses to examine the Elk Hills (R. I–478–9), particularly 30–23 (R. I–482), for a company that wanted to go in the oil business.

> From my examination I believe these lands to be good oil bearing territory . . . .
>
> I made a report on the land, and a favorable one in writing. I recommended the lands as good oil bearing territory and have had no reason since that time to change my opinion. R. I–480–1.

Chas. M. Lamont, occupation mining since 1879, testified that he examined the Elk Hills in 1899 with S. G. Drouillard, an old prospector, and located for oil several sections westerly from 32 of 30-24 and they extended over to 30–23.

> I certainly regarded the Elk Hills country at that time as good oil territory and the only conclusion I have come to since then is that it was better than I thought it was in the first place. R. I–581.

The oil depression beginning in 1901 was the cause of their failure to develop the property.

W. E. Ott, Superintendent of the Southern Pacific's property at McKittrick beginning in 1901, testified that all of the time he was there and up to the present time "it was a general belief amongst oil men that the Elk Hills were oil territory" and that he "always thought there was oil there." R. I–277–286.

L. G. Sarnow, an experienced practical oil man who at one time was in charge of the Southern Pacific field at the McKittrick and later moved to Kern River and had charge of the field there, testified that he and J. B. Treadwell, examined the Elk Hills in 1899 and both thought the land was good for oil, though deep, and that they made locations. R. I–135.

F. D. Lowe, who drilled a well in the Elk Hills in 1901, testified he "talked with people that were in a position in which their opinion was worth something, . . . and that they believed there was oil there" and "in paying quantities." That was the opinion generally among men interested in the commercial

production of oil. R. I–149. The witness gave the names of several operators who entertained that opinion.

B. K. Lee, an experienced oil operator at McKittrick, testified that he recommended the purchase of 159 acres of land in section 36 of 30–23 for its oil value and it was purchased. R. I–229.

C. F. Whittier, one of the largest oil producers and operators and a practical prospector in this territory, testified that the total output of his producing wells was about a million barrels a year. R. I–469.

> I believe the Elk Hills have value for mineral; for oil. . . .
>
> I had talked with some personal friends of mine as to the situation and intended to go in there and make some locations and do development work and get a patent to the land, but I was unfortunately crippled so that I couldn't go over there then.
>
> I am interested in the oil business from a producing standpoint and not from a speculating standpoint. R. I–471.
>
> It was the general impression of the oil men of my acquaintance around McKittrick, as early as 1904, that the Elk Hills would become oil bearing—would be proven to be oil bearing. R. I–474.
>
> From my observations of 30–24 and 30–23 and the Elk Hills generally, the conditions were such in 1904, or up to that time, to justify an ordinarily prudent man in the expenditure of money with the reasonable expectation of developing a paying oil property. R. I–476.

Ira M. Anderson, oil producer and prospector of wide experience, testified that he made chloroform tests of the earth, rock, and shale found in the Elk Hills in 1899 and 1900 and the tests showed oil and oil sands and the formation was there to show that it was oil producing territory. R. I–156.

Judge Dietrich, after quoting from the testimony of Dr. Branner, Frank Barrett and W. E. Youle, stated:

> By "oil territory," it would seem to be clear that these and other Government witnesses mean territory where the observable geological conditions are such as to justify expenditures in prospecting, and prospecting by those who are able to take the chances. R. VII–15.

Dr. Branner testified:

> I should say, decidedly, that the conditions in the Elk Hills are such as to warrant the ordinarily prudent man in the investment and expenditure of money with a reasonable expectation of developing a paying property. R. II–1 25.

This is an exact compliance with the test laid down in the *Diamond Coal* case that—

> the known conditions . . . were plainly such as to engender the belief that the land contained mineral deposits of such quality and in such quantity as would render their extraction profitable and justify expenditures to that end. p. 239.

It is true that Dr. Branner said "there is nothing absolutely certain about putting down an oil well in a new region; there is a certain amount of risk about it." R. II–1025.

So in the *Diamond Coal* case, one of the witnesses for the Government said:

> He could not take a "solemn oath" or "be positive" that unexplored lands in the vicinity of the outcrop and in the direction of the dip contained valuable coal, but his testimony said this court "was plainly to the effect that the outcrop, the direction and inclination of the dip, and other conditions in 1899 and 1900 afforded reasonable ground for believing that a considerable territory lying west of the outcrop could be mined profitably." p. 244.

Dr. Branner said that in forming his opinion:

> I took into consideration the possibilities of the non-occurrence of oil resulting from the conditions of the sand and the pinching and hardness of the stratum and other interruptions. R. II–1024.

Likewise in the *Diamond Coal* case, the Government witnesses and the court took into consideration "the uncertainties incident to coal mining by reason of the faults, thinning and the like."

These uncertainties were emphasized by the Coal Company's experts and the Court recognized the fact and stated that coal mining has "its hazards and uncertainties," just as Dr. Branner said petroleum mining has "a certain amount of risk."

Dr. Branner was thoroughly familiar with the various kinds of mining and he testified that "next to coal mining, the mining of petroleum, based solely upon geologic evidences, was the surest kind of mining that I know anything about." R. II–1024. While *A. C. Veatch*, the noted expert, said that he did not know absolutely that underneath the dome of the Elk Hills there was oil in paying quantities, yet he "reached the conclusion that that was to me valuable oil land, that is, it had a commercial value as oil property," and that it was "a place where I would *certainly* advise drilling and where a man would be *amply* justified in spending money in drilling a well." R. II–743.

Youle, the most experienced operator, and *Whittier*, the largest producer, and others, testified, as we have seen, that they would have advised the expenditure of money in the development of the Elk Hills with the reasonable expectation of producing a paying oil property, and *Frank Barrett* recommended in 1899 in writing, the Elk Hills as good oil-bearing territory to a company that wanted to go into the oil business, and at that time the lands in suit were worth, in his opinion, as oil lands from $200 to $300 per acre, and aside from their oil value, "I don't think you could raise a black-eyed pea on them." R. I–481.

It seems clear that these witnesses entertained the belief that the lands in suit were oil lands as defined in the *Diamond Coal* case.

Space forbids further extracts from the evidence of the many witnesses for the Government who testified to their belief prior to the date of the patent, in the oil value of the lands in suit, and mere reference is here made to the evidence of some others of these witnesses, to wit: M. S. Wagy (R. I–174–180), J. I. Wagy (R. I–237–244), C. F. Haberkern (R. I–349–350), W. G. Sylvester (R. I–355–357), and H. P. Dover (R. I–461–468).

The defendants seek to draw comfort from Veatch's statement that in his opinion oil could not have been mined at a profit in the Elk Hills in 1904, but he explained that "there are a great many valuable deposits that cannot be mined at a given moment that are perfectly good mineral lands." R. II–886. That depends upon the price of oil at that particular time, the conditions of marketing, the matter of transportation and questions of economic features. R. II–887.

The evidence shows that during 1904 there was a great depression in the oil business in this territory, oil selling as low as seven cents a barrel and that there were no transportation facilities for independent producers, due in large measure to the preference in furnishing cars given by the railroad to its subsidiary, the Associated Oil Company. See references, *infra*, p. 182 *et seq.*

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Judge Hook in his opinion in the Circuit Court of Appeals in the *Diamond Coal* case, 191 Fed. 786, 795, refers to this feature, saying—

> the mineral must be in such quantities as to justify exploitation; but that does not mean a positive, absolute certainty which can only be shown by actual exposure or uncovering, nor that *temporary distance from market makes unprofitable* the mining of any but a very thick vein or deposit.

So in the instant case, a temporary depression in the oil business or a shortage of cars which rendered the mining of the oil unprofitable at that particular period would not prevent the lands from being classified as oil lands.

(*a*) *The belief in the oil value of the lands in suit was also entertained by the experts, officers and agents of the Railroad Company.*

Not only was the belief in the oil value of the lands entertained by practical oil men operating in the West Side Oil fields, but it was also shared in by the oil experts, responsible officials and agents of the Southern Pacific, evidenced both by their words and deeds.

John R. Scupham from 1874 to 1887 was consulting engineer of the Railroad Company and as such examined mineral lands (R. I–584–5), and in 1887 at the request of A. N. Towne, General Manager of the railroad, he examined the Elk Hills and reported that he "thought these hills lying to the east were overlaying the oil measures, and that they would

turn out to be very important in their future development" (R. I–588), and he also told Jerome Madden, the railroad land agent, that he thought that was going to be valuable land and suggested that they ought to have it surveyed and steps were taken shortly after that to have the land surveyed. R. I–589. The record shows that the survey of a part of this land was completed in 1893.

J. B. Treadwell, the railroad expert in charge of its oil development and operations, admitted that he had in 1902 withdrawn from sale "because in or near oil territory" sections 3, 5, 7, 9, 13, 14, 17, 31, of 30–23 and eight sections of 30–24 and several in 31–24. Treadwell also admitted that the above are all the sections in 30–23 which were at that time surveyed. R. V–3423–4.

The above admissions were secured from Treadwell toward the end of the taking of testimony, when he was called to the witness stand by the railroad. At the beginning of the trial, he had been examined as a witness by the Government and stated that "none of my withdrawal orders took any portion of the Elk Hills." R. I–435. When Treadwell was examined the last time he was confronted with Exhibit 115, being the withdrawal map which he had made showing the above sections in the Elk Hills reserved from sale "because in or near oil territory." While Treadwell said on the witness stand that he did not believe the Elk Hills oil lands, his act in withdrawing them from sale shows clearly his belief.

Treadwell in December, 1899, in conjunction with L. G. Sarnow and John Jean, located for oil, section 33 of 30–24. At that time he was oil expert for the Railroad Company and carrying on its operations in his own name and in May, 1902, the Railroad Company secured agricultural patent No. 111 for this section 33. R. VI–3451–9.

Treadwell and other associates also made other locations for oil in the Elk Hills in 1899. R. VI–3427. Jean and Sarnow both testified that before making the location of 33 of 30–24, Treadwell went to the seepages on 32 of 30–24 and he thought the land was good for oil. R. I–128, 135.

Thomas J. Griffin, General Manager of the Splindletop Power Company, and at one time mechanical engineer of the Rio Bravo Oil Company, a subsidiary of the Southern Pacific, testified that J. B. Treadwell in 1902 told him that he had made a careful examination of the Elk Hills and had found oil sands and indications of oil there, and asked witness if he would not like to ship a rig there and they would go in and develop for oil the even numbered sections as soon as the lands were surveyed and that Treadwell had a map showing the character of the land. R. II–1327–8.

Josiah Owen in September, 1902, took active charge of the oil territory of the Southern Pacific in California. R. V–2900. Owen reported to E. T. Dumble who succeeded J. B. Treadwell in March, 1903, as consulting geologist. R. V–2907.

Owen died before the suit was brought but the record is replete with evidence showing the belief entertained by him, prior to patent, that the lands in suit were oil lands. This evidence consists of his maps, reports, letters, statements and acts to which brief reference will be made.

S. P. Wible, an intimate friend of Josiah Owen (R. I–322) and associated with him in the formation of the Eight Oil Company, in 1907, to acquire lands in the Elk Hills (R. I–323), testified that he and Owen examined the Elk Hills together in 1903 or 4; Owen was going to show him the outcrop or seepage on 32 of 30–24. R. I–321. Owen seemed to feel sure that there were oil lands in the vicinity of those oil outcroppings on section 32. R. I–322.

> Just about the time of the selection of those lands by the Railroad, about 1904, the same lying in 30–23, I discussed those lands with Mr. Owen. We were at that time disdussing the mineral probability of the hills for Fuller's earth especially. . . . He said if the railroad selected those lands they would be selecting mineral lands. In other words, they had no right to select them as he had reported them as mineral land. R. I–324.
>
> I had some conversation with him with reference to some land in 30–23, in which he told me that oil could be reached at three thousand feet or over and we didn't drill because we didn't figure that it would pay to drill for it. R. I–328.
>
> From 1903 to 1908 the oil business in the McKittrick vicinity was very dull and there

> was practically no new developments on account of the price of oil and lack of facilities for getting rid of it. R. I–333.

Charles Brisco testified that in 1903 he took Josiah Owen to a brea bed in the Elk Hills and they lighted it. R. I–335. Owen made a careful examination of the Elk Hills and told Brisco that it was good oil territory and that "he thought that would be the best territory of any of it, but would be very deep. R. I–337. Witness had some land located in the Elk Hills and he asked Owen about it and Owen said "This is good enough, hang on to it." R. I–341. *F. O. Martin* testified that in February, 1912, he made a trip with Brisco into the Elk Hills and Brisco pointed out the lands he and Owen had gone over together in 1903. Martin testified that the oil seepage Owen and Brisco examined was on section 32 of 30–24 and the sections traversed by them were 24, 26, 33 and 34 of 30–23, and 29, 30 and 32 of 30–24. R. I–343–5.

N. C. Farnum testified that he met Josiah Owen in 1903 and accused him of taking from him section 27 of 30–22 which he had located in 1899. It had recently been patented to the Southern Pacific Railroad. Owen said Treadwell was responsible for that. Witness was then at work on 26 and he asked Owen what he considered the prospect of getting oil in 26 of 30–22 and Owen said:

> Your section 26 is better land for development than 27, according to his opinion. He stated he thought the whole country from

> 30–22 clear to the lake was oil territory; as he had examined them carefully. That would include townships 30–22, 30–23, and 30–24. R. I–508.
>
> We discussed the general trend of the Elk Hills. I asked him whether he thought we would likely get oil, and he said "Yes"—I don't know his exact language. He said something about the depth we would have to go but I can't say what it was now. I am not sure whether he said it was three or four thousand feet. I think he said it would be deep. R. I–521.

At that time witness and his associates were in possession of their location in 30–23 (R. I–522), which they had made in 1899 in consequence of the report of W. E. Youle and Mr. Farnum's personal observations, and they had also purchased some locations in this section from S. G. Drouillard and his associates. R. I–501.

M. S. Wagy testified that during the time Josiah Owen was making examinations of the Elk Hills, he showed him the sand taken from section 32 of 30–24 and later had a talk with Owen about that country and Owen said he thought that was an oil district. R. I–182–3.

Eight Oil Company.

The Eight Oil Company was organized in 1909 but the lands were first acquired in December, 1907, and January, 1908. The holdings include the following even sections in 30–23, to-wit: 20, 22, 24, 26,

28, 30, 32, and 34 in 30–24. Its development has been confined to 30–24. Among the incorporators were Josiah Owen, 8,000 shares, S. P. Wible and C. F. Haberkern. R. I–347–9.

C. F. Haberkern testified that in consequence of the examination made by him and Owen in 1904, he and his associates later located lands in 30–23. They located only even sections because Owen said "he was working for the railroad and not to take any railroad land. R. I–350. Perhaps a month before we made our locations in 1907 we talked the matter over with Mr. Owen and he said to locate on the even sections in 30–23." R. I–353.

S. P. Wible testified that Owen furnished information of the geological character of the holdings of the Eight Oil Company to that Company and told them that it was possible that the oil measures lay under there at a depth that could be reached.

> Mr. Owen put up his share of the money for doing the development we did there and the locations of the land and the organization of the Company. Those lands were located for oil, Fuller's earth and gypsum and other minerals. R. I–324.

After the Eight Oil Company was organized Owen got 2667 shares of stock for E. T. Dumble. R. I–351.

Capt. W. H. McKittrick testified that he first met Josiah Owen in 1899 and on his advice, invested in some property in Texas which did not turn out very well; that he next met Owen in Oakland in 1903 and at that time Owen said:

> I am awfully sorry about our investment down there but I have something that I will put you on that will make you more money than the mine we might have had in Mexico. I asked him what it was and he said he was not at liberty to tell me then, but would tell me when the proper time came. R. I–527.

That he met Owen again in Bakersfield in 1907 and "he said then that he was ready to put me on to what we were talking about in 1903."

> *He told me that he had been working out in the Elk Hills for a number of years, and that no one knew he was out there at all, and he told me to say nothing about his being out there.* R. I–528.

That he had located large deposits of Fuller's earth and—

> he told me that there might be a possibility of oil there, but that oil could not be found within less than 3,400 feet, but he could not tell whether it was in paying quantities or not, but that he believed that oil was there at that depth. . . .
>
> I can't say that it was my understanding at that time that that depth was prohibitive. Mr. Owen didn't say anything to me about the depth being prohibitive. He said he had been out there so many months, and that he didn't think there was any chance of oil in less than 3,400 feet, that there might be oil at that depth. He suggested the location for Fuller's earth, and did not say that it was for the purpose of getting the oil. R. I–535.

They located the even sections in 30–23 and 30–24 and the Eight Oil Company was organized, and Capt. McKittrick became interested in it. While he understood they located for Fuller's earth, Mr. Wible, who was one of the active men in the organization of the Company, testified the lands were located for oil as well as Fuller's earth. R. I–324.

It is indeed singular that the company should have been named the Eight Oil Company, if it was not organized to produce oil, but Fuller's earth. At the time of the trial, a contest was pending in the local Land Office over a part of these lands in 30–23, the Associated Oil Company contending that they are oil lands. The experts of the Associated Oil Company testified at the contest that it was not Fuller's earth. R. I–530. Oil has been developed there. R. I–531–2. None of the Fuller's earth was ever sold. R. I–352.

The estate of Josiah Owen has received dividends amounting to $15,225 on his stock in the Eight Oil Company and E. T. Dumble has received in dividends $20,502.53. R. I–348.

The foregoing declarations and acts of Josiah Owen conclusively show that he believed the lands in suit were oil lands in 1903 and 1904. If any corroboration were needed, it is found in the reports and maps which Owen made soon after he began his investigations of the oil fields in September, 1902.

Quotations have already been made from his report to Dumble of March 25, 1903 (R. III–1615–20), in

which he refers to "the fold north of the McKittrick and running nearly parallel, passes through sections 5–9 between 11 and 15 through 13 of 30–22," which without doubt meant the Elk Hills anticline which shows on his map, Exhibit 157, accompanying said report, as entering township 30–22 in section 6 and extending through the lands in suit. In said report, he says, producing wells ought to be found along this exposure.

The Southern Pacific Railroad Company in 1904 had a patent to section 31 of 30–23, and in making up a list of the lands of the Company to be transferred to the Kern Trading and Oil Company for the production of oil for the railroad, section 31 was included in this list with the approval of Owen, Dumble and F. M. Anderson, the Railroad Company's experts. This section adjoins the lands in suit, for which Eberlein, the land agent, was endeavoring to secure an agricultural patent and it was on this account that he refused to execute the lease, writing to General Manager Markham on September 10, 1904, "should the existence of this lease become known it would go a long way toward establishing the mineral character of the lands referred to and which are still unpatented." R. II–1056.

E. T. Dumble became head of the geological department of the Southern Pacific in March, 1903, and in charge of oil operations, succeeding Treadwell. R. V–2907–11. Owen reported to him. Both Dumble and Owen were furnished with copies of Tread-

well's map, Exhibit 115, withdrawing from sale a large part of the lands in the Elk Hills because in or near oil territory. Owen sent to Dumble with his report of March 25, 1903, the map delineating the Elk Hills anticline, extending through the lands in suit. Dumble selected in conjunction with Owen and F. M. Anderson the lands to be conveyed to the Kern Trading and Oil Company for oil production purposes, which included section 31 of 30–23, section 5 of 31–23 and section 25 of 30–22, adjoining the lands in suit. *Geo. A. Stone*, who made up the selection list for the lands in suit testified that Dumble pressed the selection of these lands in the fall of 1903 "for reasons best known to himself. I supposed, as geologist, he thought they were oil lands. . . . I regarded the selection of these lands as irregular." R. II–1030.

When the lease to the Kern Trading and Oil Company was presented to Eberlein to sign on behalf of the railroad, he declined to sign it and advised Judge Cornish of his reasons (R. II–1075), saying that the pendency of the selection list was a very urgent reason for delaying the execution of the lease. Dumble was furnished a copy of this letter and on October 5, 1904, wrote to Eberlein asking for a conference and this was held on October 8th and on December 7th Dumble wrote Acting General Manager Bancroft "I have had a conversation with Mr. Eberlein and it seems for reasons of policy regarding certain unpatented lands that it will be best not to execute

the lease of lands between the S. P. R. R. Co., and the K. T. & O. Co. at present." R. II–1072. In 1907 Dumble wrote Eberlein a letter to refresh Eberlein's recollection as to the facts surrounding his refusal to sign this lease, in which Dumble used this language:

> Early in December we had a further conference on the matter and you explained that you were rushing certain lands for final patent and that the immediate execution of the lease showing our idea of what were oil lands might interfere with you and we agreed to defer the execution until that danger passed.

Asked what he meant by this, Dumble testified:

> The danger that I referred to was just as I stated; danger of interfering with him and the danger that these lands might be delayed and not be patented because of their mineral character. R. V–2986.

Dumble testified that he determined the lands which they believed to be oil lands, owned by the Southern Pacific, that should be turned over to the Kern Trading and Oil Company.

> That included other lands than those which were actually developed by wells. The Company owned everything that we thought at that time would be capable of producing oil commercially; I don't mean capable of producing oil commercially at that time. Most of the land was quite a way from any producing wells, and it was taken up with the idea of furnishing the Company with oil for a long period. R. V–2911.

He included 31 of 30–23 in the lands which he thought would be capable of producing oil commercially. This section adjoins the lands in suit. This shows plainly, we submit, that at that time Dumble also believed the lands in suit would be capable of producing oil commercially just as section 31 adjoining in the same township, and that "these lands were valuable for oil purposes" as he wrote Mr. Kruttschnitt on September 21, 1903, when recommending "that the Kern Trading and Oil Company should acquire by purchase or lease such lands now belonging to the Southern Pacific Company as we consider valuable for oil purposes." R. V–2913.

The lands in suit were not then owned by the Railroad Company and that was the only reason they were not included in the list of the lands that Dumble, Owen, and F. M. Anderson believed "valuable for oil purposes."

Thomas J. Griffin testified that E. T. Dumble told him while they were in Texas, both working for the Rio Bravo Oil Company, in the spring of 1904, that "California was the coming oil field and that they owned a great deal of that land and a great deal they hadn't yet taken patents on, but expected to." Griffin further testified that in the same spring while he and Dumble were riding together just north of Bakersfield, Dumble pointed to the West and said "right over yonder about 30 miles is the biggest oil field in the world. . . . We have large holdings and expect to have more." R. II–1330–1.

While Dumble claims that he did not personally examine the Elk Hills, Eberlein protested that Dumble and his men keep off of unpatented lands. R. II–1098.

Dumble was, as we have seen, a large stockholder in the Eight Oil Company which had large holdings in the Elk Hills and he received a dividend of $20,000 on his stock. R. V–3049.

C. W. Eberlein, the acting land agent, who made the affidavits, probably had no personal knowledge of the oil character of the land. The record is clear that he was careful not to become informed, because he swore that he protested against Dumble and his assistant geologists examining unpatented lands as there was no co-operation between the land department and the geological department and if the lands were examined geologically, the Company would be fixed with knowledge and the geologists would be witnesses against the Company in any contest which might arise and so he made the affidavits without having the lands examined, at the same time swearing that he had caused them to be carefully examined.

Eberlein did, however, know that the lands he selected adjoined the oil territory for he wrote D. A. Chambers on December 10, 1903, as follows: "I am particularly anxious in regard to this list as the lands adjoin the oil territory and Mr. Kruttschmitt is very solicitous in regard to it."

Again in August, 1904, when the lease was presented for his signature, containing the list of oil lands to be

leased to the Kern Trading and Oil Company and he examined it and found that it included lands adjoining those for which he was attempting to secure patent, he declined to execute the lease, as the two acts would be inconsistent, and he advised that knowledge of the railroad's conduct in classifying the adjoining lands as oil lands be kept from the government. His advice was followed and he proceeded with his application for patent, filing it three days later, knowing that the geological department regarded section 31 of 30–23 as valuable for its oil, while he was representing to the government that the lands adjoining section 31 were not oil lands.

The Eberlein correspondence shows also that Julius Kruttschnitt, Vice-President in charge of oil matters, was actively interested in securing the assailed patent, "that he was very solicitous in regard to it." R. III–1577.

On September 21, 1903, Dumble wrote a letter to Kruttschnitt referring to untested anticlinals and enclosing maps. At that time Dumble had received Owen's map, Exhibit 157, enclosed with Owen's letter of March 25, 1903. This map shows untested anticlines and it is the only map offered in evidence which shows this and it is one of the maps sent by Dumble to Kruttschnitt. Kruttschnitt claims not to have received this map but only produces one map which he says he received and that is Exhibit 156.

A few days after this letter of September 21, 1903, from Dumble to Kruttschnitt, we find several letters

and telegrams passing between Eberlein and Kruttschnitt in reference to getting a patent to the lands in controversy and on October 12, 1903, Chambers wrote Kruttschnitt that Eberlein expected to tender a selection list for lands in 30–23 and suggested that Kruttschnitt ask that special attention be given to the patenting of those lands. He also advised Kruttschnitt that the lands in question were suspended from disposal upon allegations that they contained petroleum. R. III–1474.

F. M. Anderson's employment as a geologist for the Southern Pacific began in 1903. He assisted Owen in preparing the list of oil lands to be included in the Kern Trading and Oil Company lease, which embraced 31 of 30–23, which was as far from the outcrop as the lands in suit, yet he testified that the lands in suit were too far away from the outcrop to be commercially productive. R. IV–2455.

He testified further:

> My conclusion as to the likelihood of the Elk Hills being then or ever being oil territory was negative. That is to say I did not believe they were oil-bearing or ever would be found to be oil-bearing, at least not in paying quantities — not commercially oil-bearing." R. IV–2454.

It must be borne in mind that this is the expert upon whom the defendants mainly rely and according to his theory no land can be classified as oil land

unless a well has been drilled on the land and oil produced in paying quantities for a definite period of time. R. IV–2548. Measured by this standard, he could very readily say that the lands in question were not oil bearing.

(*b*) *The Southern Pacific was induced to build the branch railroad from Bakersfield to McKittrick because of the belief in the oil producing character of the country tributary thereto.*

H. A. Blodgett testified:

> I remember when the Southern Pacific Railroad Company was put into McKittrick. I had something to do with the proposition of putting it in there. The inducement that promoted the construction of the road was the prospect of a profitable traffic that was to come out of the production of asphalt and oil in that district. I think the road was put into McKittrick in 1893. At that time I was operating an asphaltum business in the vicinity of McKittrick. I interested the Southern Pacific Railroad Company people through Henry F. Williams. . . . I took the matter up with the railroad authorities, particularly Mr. A. N. Towne, the general manager. I had a number of interviews with Mr. Towne and visited him several times at San Francisco. I helped to organize the Standard Asphalt Company. I would say that the Standard Asphalt Company was one of the subsidiaries of the Southern Pacific Railroad Company as it was organized to acquire

property that was to be conveyed in consideration of the building of that railroad. . . . One half of the stock of the Standard Asphalt Company was owned by Mr. Jewett and myself and the other half by the Pacific Improvement Company representing the Southern Pacific Railroad Company. The railroad was put there in pursuance of these arrangements about the organization of the Standard Asphalt Company in the transferring of the stock and has been operated ever since. The right of way from Bakersfield to McKittrick was obtained by Mr. H. Williams and me. . . . The future probabilities of that district or the country tributary to the Southern Pacific branch into McKittrick as an oil producing and oil shipping community figured largely in the inducements which lead to the putting of the road in there at that time. The portion of the road from Lokern to McKittrick was built to furnish transportation for the production of oil and asphalt from that McKittrick field. The probabilities of a great production of oil and shipment of oil in the future from that district was understood by the railroad officials as an inducement to get them to build a road through there as I had personally brought that matter to Mr. Towne's attention. I told Mr. Towne that the deposits of asphaltum in evidence in that district was a drop in the bucket only to the quantity of oil that was tanked underneath and that would be produced. In other

> words the visible evidence of tonnage was as nothing practically, compared to what was underneath. R. I–363–5.

W. E. Youle testified that a short time before the branch road was built he made a report to the railroad officials on the country, stating that it was very fine looking oil territory and he was then asked to go to San Francisco where he met General Manager Towne, and other officials and reported his conclusions to them.

> I was very much in favor of the field, and had reason to feel very sanguine that it would make good territory. . . . That road was commenced very soon after that. I–546–7.

(c) *The fraudulent manner in which the Southern Pacific acquired patent to the lands involved in the Tulare Oil Company contest is in keeping with its fraudulent conduct in securing patent for the lands now sued for.*

This contest is entitled *Tulare Oil and Mining Company* v. *Southern Pacific R. R. Co.*, and is reported in 29 L. D. 269.

To sustain the contention that the Elk Hills were not generally believed, prior to patent, to be oil lands, the defendants in their brief filed below cited this case, saying "this general opinion that the oil territory was very limited even received *official recognition* in 1899." It will be shown that this "official

recognition" was procured by the Railroad Company entering into a secret agreement to conceal from the Government the fact that the land for which it was seeking an agricultural patent was proven oil land.

The contest grew out of an application for patent filed by the Railroad Company for several sections in 30–22 near McKittrick. A protest was filed by the Oil Company, alleging that the lands were mineral. A hearing was held and upon appeal the decision of the Secretary of the Interior was in favor of the railroad. In the meantime the Oil Company had brought in a producing well and was about to ask to have the case reopened. The Railroad Company was advised of the discovery of oil and of the purpose of the Oil Company to reopen the case. Thereafter a secret agreement was entered into between the parties, by the terms of which the Oil Company agreed not to ask to have the case reopened and to permit the patent to be issued to the Railroad Company for the lands, upon the railroad agreeing to make a deed for a part of the lands to the Oil Company as soon as the patent was secured and that a deed to this effect should be placed in escrow, and this was accordingly done and the deed signed by H. E. Huntington, President of the railroad, is dated February 21, 1900. The patent was issued to the Railroad Company May 21, 1901, and the deed delivered to the Oil Company and recorded June 7, 1901. The foregoing appears from the evidence of H. M. Shreve, one of the organizers of the Oil Com-

pany and its secretary at the time of those negotiations. I–446.

It is needless to say that this agreement was kept secret and that the Government had no notice of it until it was brought to light in this litigation.

The fraudulent suppression of the agreement made it possible for the Railroad Company to secure a patent to lands which were mineral, the Oil Company having at that time drilled a producing well upon one of the quarter sections which was in controversy, and it was in consequence of knowledge of this fact that the Railroad Company entered into the fraudulent arrangement that if the Oil Company would not ask for a review of the decision of the Secretary of the Interior, but would let the Railroad Company secure a patent to this proven mineral land, it would deed the land upon which oil had been produced to the Oil Company.

A decision obtained from the Land Department by such nefarious methods instead of being a recognition of the non-mineral character of the land is convincing proof of the fraudulent intent which actuated the railroad in its dealings with the government in its efforts to obtain patents for the lands in this territory. It did not hesitate to suppress evidence and conceal from the Government the mineral character of the land for the purpose of securing an agricultural patent covering well known mineral land. It resorted to these methods and secured its patent in 1901 for

lands near those involved in this suit. It is not surprising that we find the same company resorting to similar means of misrepresentation and concealment two years later in its effort to obtain a patent to lands of the same character. This shows that the same underlying motive actuated the railroad and such evidence is clearly competent upon the principle that where the fraudulent intent of a party is at issue, proof of similar fraudulent acts, whether prior or subsequent to the act in question, is admissible.

Wood v. *United States*, 16 Pet. 342, 360; *Mudsill Min. Co.* v. *Watrous*, 61 Fed. 163; *Penn Mut. Life Ins. Co.* v. *Trust Company*, 72 Fed. 413.

In the *Diamond Coal* case, commenting on an earlier fraudulent effort on the part of the Coal Company to acquire the lands, the court said that it "serves in no small degree to explain the kindred practices employed in the later effort." 233 U. S. 248.

VI.

MINERAL LOCATIONS MADE IN THE ELK HILLS PRIOR TO PATENT COVER EVERY SECTION OF THE LANDS IN CONTROVERSY.

An abstract of the locations for oil made in the Elk Hills prior to patent, will be found in condensed form on pages 1652 to 1696 of volume three of the printed record. These abstracts cover pages 600 to 786 of the volume of "Documents and Evidence not Printed."

The locations cover every section in 30–23 from section 14 to 36, both inclusive, except section 31, for which the Southern Pacific had patent and they also cover sections 29, 31 and 33 of 30–24, which were located by J. B. Treadwell and other employees of the railroad.

These locations were made, beginning in 1899 and covering the intervening years before the issuance of the patent and were promptly recorded in the public records of Kern County. It was contended in the brief filed by defendants in the Circuit Court of Appeals that these locations for oil were made by men "without knowledge of the habits of oil" and that practically all the locators of "these speculative claims were men without experience in the oil business" and it was therefore argued that these locations meant nothing.

A reference to the names of these locators demonstrates that this contention is without support, but on the contrary these locators included the most experienced and practical oil men, including operators, prospectors and drillers. Among the locators were W. E. Youle, S. G. Drouillard, H. A. Blodgett, C. W. Lamont, M. S. Wagy, N. C. Farnum, L. G. Sarnow, F. J. Sarnow and Chas. Brisco.

The defendants admit that Mr. Youle was "one of the oldest and most experienced experts and operators," and the long practical oil experience of the others is shown by extracts from the testimony already incorporated in this brief.

In addition to the above, there were many others of more or less experience who were witnesses for the Government.

Among defendants' witnesses, who were among the locators and were or claimed to be experienced oil men, were J. B. Treadwell, H. W. Thomas, C. H. Allison, C. A. Barlow, Timothy Spellacy, and others. D. Burkhalter, division superintendent of the Southern Pacific at Bakersfield, was one of the associates of J. B. Treadwell in his locations.

The extensive practical experience in the development and production of oil of the foregoing men refutes the contention that their locations were for speculative purposes. It is true that some of the locators were inexperienced in oil matters but their activities no doubt resulted from the fact that they learned that the most experienced oil men, led by Youle, Drouillard and Blodgett, were making locations for oil, coupled with the fact that J. B. Treadwell, the oil expert of the Southern Pacific and in charge of its oil operations, had likewise made locations.

Colon F. Whittier, one of the largest oil producers in California at that time, the output of his wells being about a million barrels a year, testified that he was interested in the oil business from a producing and not from a speculating standpoint and that while he made no locations in the Elk Hills, he had made arrangements in 1903 to do so throughout township 30–24, but an injury to his knee kept him confined

to his house for several years and that prevented him. I–471.

> From my observation of 30–24 and 30–23 and the Elk Hills generally, the conditions were such in 1904 or up to that time, to justify an ordinarily prudent man in the expenditure of money with the reasonable expectation of developing a paying oil property. I–476.

The failure to develop the locations made in the Elk Hills between 1900 and 1904 was due: (1) to the depression in the oil business which occurred in 1901 and continued for several years; (2) to the inadequacy of railroad transportation; (3) to the withdrawal order of February 28, 1900; and (4) to the lack of money on the part of some of the locators.

The defendants contend that the fact the locations made in the Elk Hills, beginning in the winter of 1899–1900 were not developed prior to the issuance of the patent in this case in 1904, shows that they were speculative and not made in good faith with a view of developing oil. An examination of the testimony shows that this contention is unfounded and it clearly appears that the failure to proceed with development work was due: First, to the depression in the oil business which occurred shortly after the first locations were made and continued for several years; second, to the inadequacy of transportation facilities which became acute about that time, due in a large measure to the fact that the Associated Oil

Company, which was furnishing oil to the Railroad Company, was given priority and practically all the tank cars available were furnished to that Company and independent producers could not get cars; third, to the suspension order of February 28th, 1900, withdrawing the lands from disposition, which was not removed until 1904, and lastly, to the lack of funds on the part of some of the locators.

N. C. Farnum, one of the largest oil producers and operators, testified that he and his associates, upon his own observations and Youle's report, made a number of locations in the Elk Hills in 1899 and they also paid $3,200.00 to four locators (R. I–502); they built roads and a camp and kept from one to twelve men there.

> Our object in making these locations was to acquire land for development, as we sincerely anticipated doing. We made arrangements to carry out our purpose in actually drilling for oil. R. I–503.

He testified that they had instructed Mr. Youle to move a complete drilling outfit from Kern River to Elk Hills to prepare for drilling but they were prevented "because the Government had just withdrawn this land" (R. I–503), and this "made it impossible for us to know whether we would ever get a title if we got a well." R. I–510.

> Knowing all the conditions then existing, we would have sunk a well for the reason that we had determined to drill a hole in the Elk Hills no matter what it cost us, as far as we

> could go and as far as money would go. That was the absolute determination, not to be deviated from, until the Government withdrew the land.
>
> In 1902 there was a very perceptible depression in oil. There was a great shortage of cars. . . . The lack of railroad transportation and facilities had something to do with the general depression of the oil business. R. I–504.
>
> It was easier to get cars in 1900 than in later years. It seemed that the injection of the Associated Oil Co. into the oil proposition in Cal. affected the transportation business materially, as they were buyers of oil as well as shippers. R. I–512.

He testified that they kept up their locations until 1906 but they didn't go ahead after the withdrawal was removed in 1904, because conditions changed, particularly between 1901 and 1906.

> Money was hard to get. The price of oil was so low it did not pay to produce it. The transportation conditions were inadequate. R. I–512.
>
> There was a long period there when it was almost impossible for a man who was not connected with the Associated Oil Co. or some of the other—one or two—of the larger corporations, to get cars to handle his oil. That was one of the reasons why our company determined not to sink a well after the government removed its restriction. Another reason was a lack of money. R. I–513.

S. G. Drouillard testified:

> The order of withdrawal of the lands from disposition was a consideration for my leaving. R. I–125.

H. A. Blodgett, the most prominent oil operator in the West Side fields in 1900, testified that there was a considerable oil boom in Kern county in 1899 and 1900 and the excitement kept up for three years and was shared in by geologists and experienced oil men; but two factors, the low price of oil and lack of cars for transportation,

> made the marketing of oil practically prohibitive. Oil could not be produced profitably and investors lost interest. That practically paralyzed that region and developments ceased. R. I–366.

Before 1902 the Railroad Company was buying oil of all producers in all fields in Kern county but in 1902 there was a change in affairs. The Associated Oil Company was delivering large quantities of crude oil to the Railroad and they "took precedence over everything else." R. I–366.

> This change caused a lack of facilities for transportation, shortage of cars, and made it practically prohibitive for the shipment of oil out of the West Side Field and the River Field for independent producers. R. I–370.

Mr. Blodgett testified that he intended to develop his locations in the Elk Hills but—

> the conditions of the oil business were such that it would have been ridiculous to have

spent any money during that entire period extending from 1902 to 1905 or 1906. R. I–389.

The reasons for not developing the property in the Elk Hills was that there was no market for oil. The price was so low that if you had had a thousand barrels a day in the Elk Hills you could not have transported it, it wouldn't be worth a cent. R. I–390.

He testified that the shortage of cars "was a symptom of a desire not to furnish the facilities." R. I–396. The Southern Pacific painted off the letters "S. P." on the tank cars and put on "A. O." The Associated was the only producer that could get tank cars. R. I–401–2. It will be recalled that the Associated Oil Company is a subsidiary of the Southern Pacific. R. VI–3592.

S. P. Wible testified:

From 1903 to 1908 the oil business in the McKittrick vicinity was very dull and there was practically no new developments on account of the price of oil and lack of facilities for getting rid of it. It was only once in a while you could get cars and for that reason you couldn't contract for the oil. The activity stopped almost entirely. The lowest I know of oil being sold for at that time was eleven cents a barrel. R. I–333.

Chas. Brisco testified:

There was a depression in the oil business in McKittrick, I think, in 1901, 2 and 3, and

> it continued a year or two after I went away from there in 1904. During the time that I was there, I was actively engaged in the business of prospecting and development. The cause of the depression was our inability to get rid of our oil. We couldn't sell and we couldn't get it out of the field because there were no facilities for transportation. R. I–338.

This car shortage was quite general. He had charge of the shipping for a while and applied to J. B. Treadwell for cars and he said he didn't have any. R. I–339.

B. K. Lee testified that they drilled a well into the oil sand about the time the slump came in the price of oil about June, 1901. From then until the winter of 1903 things were very quiet. The price of oil would not justify the expense of putting in a pipe line. R. I–231.

L. G. Sarnow testified that he abandoned his location "because oil went down to nothing. It sold in the Kern field for seven cents a barrel and there was not enough money in it to drill for it." R. I–142.

F. D. Lowe, who drilled to 560 feet in the Elk Hills and "encountered oil, quit because of depression in the price of oil and financial difficulties." He quit in the early part of 1901, and the depression continued for a long time thereafter. R. I–151.

Chas. W. Lamont, testified "there was an oil depression from 1901 lasting for several years, and it was just as good as insulting anybody to ask them to

put their money into it at that time. That was the whole reason for our failure to try to influence people there or get money to carry out the locations." R. I-583.

W. E. Youle testified:

> Money was spent on the location made on my recommendation in the Elk Hills; they built roads and did assessment work. They intended to go in there and I got a rig ready to send over, and some way they fell down. They said money was getting scarce, and oil was cheaper and transportation hard to get. R. I-576.

W. G. Sylvester testified that while he believed the land he located to be oil lands susceptible of development and production on a commercial basis, the low price of oil made the attempt to produce oil then too expensive. He drilled a well in 1901, 980 feet on Section 8 of 30-23 but he abandoned the well, "because there was so much gas that the drilling became so expensive that he couldn't stand the pressure." R. I-357.

H. P. Dover testified that his locations in the Elk Hills were abandoned "because of the slump in the oil business in Kern county in 1901 and oil was kind of a drug on the market for two or three years. Nobody would put any money in oil property." R. I-467.

A number of defendants' witnesses corroborated the plaintiff's witnesses as to the depression in the

oil business and lack of railroad facilities resulting in a failure to develop the locations in the Elk Hills.

S. J. Dunlop testified that in 1900 he put a well on each quarter of section 26 of 32–23, made discoveries of oil and obtained patent. "After that there was quite a slump in the oil business and we let the property lie until a railroad had been built in there." R. III–1820.

L. B. McMurtry, a railroad conductor for the Southern Pacific, testified that "in 1901 oil was down to 15 cents a barrel and there was no market and no transportation, and the oil industry certainly fell off considerably at that time." R. IV–2082.

C. H. Meves testified that after the drop in the price of oil at McKittrick, he lost interest in his locations in Elk Hills. R. III–2006.

O. E. Hotchkiss testified that "oil went down to twelve and fourteen cents a barrel and there was hardly any profit in producing oil even if you had a well already drilled. Development was checked." R. IV–2092.

E. J. Miley testified that he stopped drilling in 1903 because of the low price of oil and that in 1904 the oil business was bad, and he quit drilling and abandoned his location after getting some oil. R. III–1707–11.

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VII.

THE GOVERNMENT PRIOR TO PATENT DID NOT DETERMINE OR ADJUDICATE THAT THE LANDS IN SUIT WERE NONMINERAL.

> *Judge Bean held that "these proceedings [which resulted in relieving from suspension the lands in suit] were in no sense an adjudication but a method adopted by the department for determining whether its previous order of withdrawal should be revoked and the lands opened to entry. They did not establish the nonmineral character of the lands nor relieve the company from the consequences of submitting false and misleading affidavits and proof upon which the land officers were expected to and no doubt did rely in issuing patents."* R. I-79.

It was contended below by the Railroad Company that the Government investigated the mineral character of the lands when the order was made relieving the lands from suspension and thereby adjudicated that they were non-mineral and to quote its brief "cannot be heard to say it was imposed upon by false representations."

The facts bearing upon this contention will now be reviewed:

It will not be denied, as Judge Bean finds that—

> at the time the selection list was first filed [in November 1903], the lands in controversy together with a large area of other lands were within a previous withdrawal order of the department because of their probable oil contents. At the request of the defendant

> Company the department ordered an examination of the lands applied for by a special agent to ascertain whether they should be relieved for suspension, and upon his report the suspension order was revoked as to these lands and they were subsequently patented to the defendant. R. I–78.

The evidence shows [said Judge Bean]—

> that the agent making the examination and report was not an oil or mineral expert and was instructed by his superior in the Land Office "that it would be unnecessary to go over all the lands but to drive over part of them just as the 'crow flies' and to interview ranchmen, stockmen, etc., as to the location of oil wells producing oil in paying quantities" and "to recommend that those lands be relieved from suspension on which he found no oil well producing oil in paying quantities," and that he acted accordingly, and made no examination whereby he determined or could determine whether in fact the lands were mineral in character. In his report he said that he "found no oil seepages, oil springs, or other indications of oil or mineral of any kind that would tend in his opinion to warrant" the lands being classified as mineral in character, and therefore recommended that they be relieved from suspension. R. I–78–9.

E. C. Ryan was the special agent who examined the lands and he testified that he was not a geologist or mineralogist (R. III–1598) and that he would not know a gas blow-out if he should see one. R. III–1605.

E. C. Finney, of the Land Department, who handled this matter testified that "there was no attempt to send a person with special scientific qualifications to determine the character of the lands." R. III–1587.

The above quotations in Judge Bean's opinion are taken from the evidence of E. C. Ryan at pages 1597–9, Volume III.

Ryan further testified that he "did not make any geological determination of any kind as to their mineral character" (R. III–1598) and that he "never got any instructions either orally or written from the General Land Office to determine specifically the mineral or nonmineral character of these lands." R. III–1601.

In reference to his first report made on January 22, 1904, and quoted by Judge Bean, he (Ryan) testified:

> I said in my report that I made a careful examination of these lands, because I had made a careful examination as to any oil wells that might have been there. That is all. I did not examine the land with reference to oil seepages or oil sands. As I said before, I did not go all over the land and I did not see any. I looked for them but I did not see any along the road over the land that I did go over. R. III–1599.

Ryan on March 22, 1904, made a general report and in reference to township 30–23, embracing the lands in suit, he reported:

> No wells have been bored for oil and in my opinion all the lands in this township should be relieved from further suspension. R. III–1600.

Ryan was the only person who examined the lands with a view of relieving them from suspension. They included about 25 townships. R. III–1598. The officials of the Railroad Company were well acquainted with Ryan, knew that he was not qualified to pass upon the mineral character of the lands and they requested, as we shall see, the General Land Office to have the lands examined by Ryan in order to get them relieved from suspension and restored to their former status so that they would be open to selection under the railroad grant. In addition to the instructions given to Ryan and quoted in Judge Bean's opinion, the General Land Office, under date of December 10, 1903, gave the following instructions to Ryan in reference to the examination of the lands in suit:

> You are accordingly directed, when you make examination of the lands first described to also examine the tracts just enumerated and to promptly thereafter submit report as to whether or not in your opinion same should be relieved from suspension. This office has no available force from which to assign you assistance at the present time. With this condition of affairs in view, you will make report based upon the examinations heretofore made, your knowledge of the lands remaining to be exam-

> ined, and familiarity with the country generally as to whether in your opinion there is any necessity for the continuance of the suspension of the lands in the Visalia, San Francisco and Los Angeles land districts suspended by this office in 1900, and not reported upon, a list of which you have. R. III–1548.

These written instructions were prepared by E. C. Finney and bear his initials. R. III–1586. He testified that:

> My purpose, and that adopted by the Commissioner when he approved the letters directing the examination to be made, was to obtain general information, derived from a general examination of the lands and from whatever knowledge Mr. Ryan might be able to acquire or had already acquired. The Commissioner could not, and did not attempt, under the practice then prevailing, to adjudicate the character of lands upon a special agent's investigation and report. Our purpose, and his purpose, was to obtain general information to guide him in restoring the lands to general disposition, so that desert land claimants, forest lieu selectors, mineral claimants, or any other qualified citizens or corporations might apply to select or enter the land under the applicable laws, upon submitting the proof of the character required by the law and regulations. There was no attempt to adjudicate the character of any particular tract of land in any of these letters which I prepared, or with which I had to deal at this time. R. III–1586–7.

Finney further testified that after revocation of these suspensions:

> I know it was the practice and requirement of the Land Office that such entries and selections should be accompanied and supported by usual proofs as to the character of land and compliance with the law; the revocation of a suspension was regarded and treated as a restoration to the former status. R. III–1587.

From the foregoing it is clearly shown that "these proceedings were in no sense an adjudication but a method adopted by the department for determining whether its previous order of withdrawal should be removed and the lands opened to entry" as Judge Bean held. While the first selection list was filed in the local land office on November 14, 1903, it was rejected on November 17, because the lands were suspended from disposition and the Railroad Company did not file its appeal to the General Land Office until December 11, 1903. R. VI–3767.

The request by the Railroad Company for the examination of the lands with a view of getting them relieved was made on November 30, 1903, and the order of instructions to Ryan as to their examination was made December 10, 1903, and before the appeal was taken.

So it is clear that the proceedings to remove the order of suspension were not had in the appeal from the rejection of the selection list. No appeal was pending in the General Land Office when the instructions were issued to Ryan to examine the lands

with reference to the removal of the order of suspension nor had any appeal been taken or filed at that time in the Local Land Office from its order of rejection of the selection list. Indeed, D. A. Chambers, the Railroad Company's Washington attorney, on December 16, 1903, wrote W. F. Herrin, General Counsel, upon receipt of Herrin's letter advising that an appeal had been taken, that it did not seem advisable to him "to take steps to get a hearing" on the appeal, as the Commissioner had already instructed special agent Ryan to examine and report as to the necessity for the continuance of the suspension. R. III–1483.

The revocation of the previous order of suspension merely had the effect of restoring the lands to the status they occupied previous to their withdrawal from disposition. The nonmineral character of the lands was not established thereby. Though it is contended by the railroad that the withdrawal order was of no consequence, because it was not based on any real determination of the intrinsic character of the land, yet it is strenuously argued that its revocation was conclusive determination by the government that the lands were nonmineral. The railroad officials were thoroughly acquainted with Ryan. They knew that he was not a geologist and not qualified to determine the mineral or nonmineral character of lands. They knew the order revoking the order of withdrawal was based upon a hasty and superficial examination by Ryan and its only effect was to make the lands open to selection.

Eberlein testified that he never saw Ryan or had any communication with him (R. II–1161–2) and this evidence is emphasized by the railroad in its brief filed in the Circuit Court of Appeals. This testimony was given before the production of the letter of December 10, 1903, from Eberlein to Chambers in which Eberlein discussed the best method of inducing Ryan to make a report on the lands in question, saying "it is a matter for serious consideration as how to approach him." R. III–1579. In his letter of September 3, 1904, to Cornish protesting against the execution of the lease to the Kern Trading and Oil Company, "as this would practically fix the mineral status" of these lands, Eberlein said:

> I have just succeeded in getting the special agent in charge [Ryan] to make a report releasing our land from interdictment. I have worked very hard and very steadily to get the United States to complete its report and dispose of this matter. R. II–1079.

The Railroad Company in its brief in the Circuit Court of Appeals in undertaking to answer Judge Bean's finding that Ryan was not an expert, while in effect conceding that the finding is correct, says "he was the man selected by the Government to make this examination" and "there is no evidence that his designation to make the examination or his report was procured or influenced in the slightest degree by the railroad company." This is a remarkable statement in view of the evidence just quoted from Eberlein's letter in which it appears that he and

Chambers were conferring as to the best way to approach Ryan and Eberlein's positive statement that he had "worked very hard and very steadily" and had finally "succeeded in getting Ryan to make a report" releasing the lands from interdictment.

The evidence shows that the plan of having lands which were under suspension examined by a special agent with a view of relieving them from suspension was suggested to the Land Department by Chambers, the railroad attorney. This request was first made October 7, 1903, as to lands in 32–25 and as to a part of section one of 30–23. R. III–1539.

Not only was the Railroad Company active in procuring Ryan's report after he was appointed, but Chambers' letters show that his designation to make the examination was earnestly desired by the railroad. Chambers wrote, under date of October 12, 1903, that he could "ask the Commissioner of the General Land Office to direct special agent Ryan to examine the lands" selected by Eberlein "as quickly as possible" (R. III–1476), and on December 10, before he had been "advised positively," Chambers wrote Eberlein that "I presume the Special Agent is Mr. Ryan." R. III–1482. He presumed this because he had asked that Ryan be designated. It is thus apparent that the attempt of the railroad to disassociate itself from any connection with Ryan's appointment, or with his report is flatly contradicted by the record.

The defendants further say that the Government made other examinations as to the character of the

lands in suit besides the superficial and hasty investigation which Ryan made with a view of furnishing information as to whether the order of withdrawal should be revoked. They refer to an examination and report made by Jay Cummings, a special agent, dated July 13, 1900, but his report did not have anything to do with the lands in suit, but with lands near McKittrick in 30–22 and in 31–22 and in some other townships far removed from the lands in suit. R. VI–3868. Reference was also made below to certain reports made by Geo. H. Eldridge and published in the Reports of the Geological Survey. These reports did not deal with the lands in suit but were confined to the McKittrick-Sunset District. The record is clear to the effect that the only examination which was ever made of the lands in suit by any government agent, prior to patent, was that made by E. C. Ryan with a view of furnishing information to the Commissioner as to whether the lands should be relieved from suspension and thereby restored to the status occupied before the order of suspension was made. The purpose of the Commissioner in ordering the examination to be made by Ryan—

> was to obtain general information to guide him in restoring the lands to general disposition so that desert land claimants, forest lieu selectors, mineral claimants, or any other qualified citizens or corporations might apply to select or enter the land under the applicable laws, upon submitting the proof

> of the character required by the law and regulations. R. III–1587.

(*a*) *The Patent was Issued in Reliance Upon the Nonmineral Affidavits of Eberlein.*

The contention was made below that the Department in issuing the patent relied upon the report of its own employe as to the character of the land and not upon the affidavits accompanying the selection list.

This contention is based upon the above examination and report made by Ryan in connection with the issuance of the order revoking the order of suspension of February 28, 1900. This contention we submit is without merit, and Judge Bean's conclusion was sound that the proceedings resulting in the revocation of the order of suspension—

> did not establish the nonmineral character of the lands nor relieve the company from the consequences of submitting false and misleading affidavits and proof upon which the land officers were expected to, and no doubt did rely, in issuing patents. R. I–79.

The nonmineral affidavits which the Railroad Company submitted with the selection lists were required by the rules of the General Land Office. They were an essential part of the proofs required to be submitted and were the only evidence or proof as to the nonmineral character of the lands, submitted to or considered either by the local or the General Land Office. They were made and filed for the purpose of securing the patent. The patent could not issue until

and unless the Land Department decided upon the proofs submitted that the lands were nonmineral. The affidavits were filed for the avowed purpose of inducing this decision.

Geo. W. Stewart, the local Register at Visalia, with whom the selection list was filed, testified that there was no evidence at all offered or considered by him during the pendency of this list as to the mineral or non-mineral character of the lands except the affidavits of Eberlein, and that was all that he forwarded to the General Land Office. R. VI–3784–5.

E. C. Finney testified that during his entire service, from 1894 to 1909, in the General Land Office, that office ajudicated —

> *ex parte* cases, selections or entries, upon affidavits and other proofs submitted by the entrymen or selectors in accordance with the law or regulations governing that particular class of cases. In cases contested by other individuals or corporations, or by the Government, it was the practice to order hearings or trials, at which the testimony of witnesses might be taken, reduced to writing, and thereafter passed upon by the Land Department. R. III–1584.

In a case where there was no contest, he testified:

> The General Land Office, in acting upon the selection or entry, would not base that action upon the agent's report, but would base its action upon the entry or selection and the accompanying proofs, that is, the proofs submitted by the entryman or selector in support of his filing. R. III–1584.

That after lands were relieved from suspension, it was the practice and requirement of the Land Office, that such entries and selections should be accompanied and supported by usual proofs as to the character of land. R. III–1587.

On cross-examination Finney testified:

> Speaking of the effect given by the General Land Office to the report of any special agent, in the absence of a contest, and ordinarily on a contest, the Department in making its decision on an application for land, decided the same upon the proofs submitted by the applicants, giving no weight to the report of the special agent. R. III–1592.
>
> After the lands had been restored to disposition, as in this case, the withdrawal orders had been revoked, the lands became just like other lands, similarly situated, subject to application or entry under appropriate laws, and the applicant or selector or entryman would have to submit the ordinary proofs required by the laws and regulations and applicable to that particular kind of filing; in all, or practically all, non-mineral filings one of the proofs required to be submitted is a non-mineral affidavit; other proofs might be evidence of publication of notice of the selection for filing. R. III–1593.

The foregoing evidence, and there is none to the contrary, shows that there is no foundation for the contention of the defendants that the Department relied upon Ryan's report in issuing the patent. On

the contrary, the Department in reaching its decision acted upon the proofs submitted by the applicant, giving no weight to the report of the special agent, in the absence of a contest, as in this case.

The evidence already quoted shows affirmatively that the patent was issued in reliance upon the proofs the railroad company submitted in the form of the nonmineral affidavits or Eberlein and that this was the only proof before the Land Office. But in the absence of such evidence, the presumption would be practically conclusive that the land officers did rely in issuing the patent upon the affidavits which were submitted for this purpose. It does not lie in the mouth of the Railroad Company to say that the proof which it submitted for the purpose of securing favorable action, and which it intended and expected the land officers to consider and accept as true, was not in fact relied upon, after it has secured favorable action and obtained the patent. This is unquestionably true in the absence of a positive showing on the part of the Railroad Company that the nonmineral affidavit was not relied upon as the sole cause or one of the inducing causes for the issuance of the patent.

> A man who has made a false representation in respect to a material matter, must, in order to rely on the defense that the transaction was not entered into on the faith of the representation, be able to prove to a demonstration that it was not relied on. *Kerr on Fraud and Mistake* (3d ed.), 75.

It is now settled law that one who chooses to make positive assertions without warrant, shall not excuse himself by saying that the other party need not have relied upon them. He must show that his representation was not in fact relied upon. . . . In short, nothing will excuse a culpable misrepresentation short of proof that it was not relied on, either because the other party knew the truth, or because he relied wholly on his own investigation or because the alleged facts did not influence his action at all. And the burden of proof is on the person who has been proved guilty of material misrepresentation. *Pollock on Torts*, 292. *Griffin* v. *Lumber Company*, 140 N. C. 514, 521.

Where a representation is made of facts which are or may be assumed to be within the knowledge of the party making it, the knowledge of the receiving party concerning the real facts, which shall prevent his relying on and being misled by it, must be clearly and conclusively established by the evidence. The mere *existence of* opportunities (italics author's) for examination, or of sources of information, is not sufficient, even though by means of these opportunities and sources, in the absence of any representation at all, a constructive notice to the party would be inferred; the doctrine of constructive notice does not apply where there has been such a representation of fact. *Pomeroy Equity Jurisprudence* (3d Ed.), sec. 895.

(b) *The representation need not be the sole inducement.*

In *Hindman* v. *Bank* (C. C. A.), 112 Fed. 931, Mr. Justice Lurton held that the false representation need not be the sole inducement moving the plaintiff.

> It is not necessary that the plaintiff should have relied exclusively upon defendant's statements that they should have been the sole, or even principal, inducement to plaintiff's change of situation—but if they exerted a material influence upon his mind, although they constituted only one of several motives which, acting together, produced the result, it is sufficient. 20 *Cyc.* 41.
>
> It is well settled that if a false representation is made and relied upon and is a material inducement, it can make no difference that other motives or causes contributed. If the party to whom a false representation is made to induce him to enter into a contract does so partly in reliance upon such representation, he is entitled to relief on the ground of fraud, though he may also reply partly on an examination or investigation by himself or by others for him. 14 *A.&E.* 113–5.

In *Sioux Nat. Bank* v. *Norfolk State Bank*, 56 Fed. 139, the Circuit Court of Appeals for the 8th Circuit held (syllabus):

> In an action to recover for false representations made by defendant as to the financial condition of a merchant, whereby, plaintiff alleges, he was induced to make loans to such merchant, resulting in losses, it is not a defense that plaintiff also made some other examination and inquiries, for the action may

be maintained if the false representations were a material, though not the sole, inducement to make the loans.

The Court said (p. 141):

> It is well settled that a false representation may entitle a party to maintain a suit even though it was not the sole cause of the bargain or transaction out of which the injury arose. It is enough to entitle a plaintiff to recover if the false representation complained of was a material inducement to the contract or transaction which occasioned the injury, although there may have been other cooperating inducements.

VIII.

THE PROCEEDINGS RESULTING IN THE PATENT WERE EX PARTE, NO ISSUE WAS FRAMED, NO HEARING WAS HAD AND THE PATENT IS NOT CONCLUSIVE AGAINST THE GOVERNMENT BUT IT MAY CANCEL THE PATENT BY SHOWING THAT IT WAS OBTAINED BY MEANS OF FALSE AND FRAUDULENT PROOFS.

The defendants in their brief filed in the Circuit Court of Appeals contended that "the patent is conclusive as to the nonmineral character" of the land.

The testimony in reference to the issuance of the patent has already been reviewed and it shows that the proceedings resulting in the patent were entirely ex parte, no protest was filed, no issue was framed nor was any hearing had, but the Land Office accepted the proofs submitted by the railroad, which consisted solely of the nonmineral affidavits of Eberlein and the patent was issued in reliance upon these.

The following cases show that defendants' contention that the issuance of the patent conclusively established the nonmineral character of the lands is without support.

Washington Securities Co. v. *United States,* 234 U. S. 76; *United States* v. *Minor,* 114 U. S. 233; *McCaskill Co.* v. *United States,* 216 U. S. 504, 509, and cases cited. The same principle is announced in the *Diamond Coal* case, 233 U. S. 236, 239.

The Nonmineral Affidavits were Actionable.

It was contended by the Railroad Company in the brief filed in the Circuit Court of Appeals that "its nonmineral affidavit on information and belief was a mere statement of opinion and not actionable." There are two conclusive answers, we submit, to this contention.

First, there were two affidavits attached both to the first selection list, filed in November, 1903, and to the last selection list, filed in September, 1904, and while one of the affidavits stated that to the best of Eberlein's knowledge and belief none of the lands returned in the list are nonmineral lands, the other affidavit attached to both lists stated that the lands, "are not interdicted mineral or reserved lands and are of the character contemplated by the grant." This was a positive, affirmative, substantive representation that the lands are not mineral.

Secondly, as it was the duty of the railroad to make a careful examination of the lands as to their mineral character before making selection, its affida-

vit setting out that such careful examination had been made and that to best of affiant's knowledge and belief, none of the lands were mineral, made and filed for the purpose of inducing the land officers to find that the lands were nonmineral, is actionable, if the lands were in fact mineral, and a careful examination would have revealed their mineral character, but no such examination was made.

It was further contended in defendants' brief that "the railroad did not make any misrepresentation as to any matter of fact."

This contention is predicated upon the theory that a representation that land is nonmineral is not a representation of a fact, but only the expression of an opinion.

The defendants first contended in this case that the affidavit was not false because petroleum was not a mineral and this position was taken in the face of the repeated rulings of the Land Department which are referred to in *Burke* v. *Southern Pacific R. R. Co.* 234 U. S. 669, 678, in which it is said that since 1873 "the Department has regarded petroleum as a mineral and has treated lands chiefly valuable therefor as mineral lands."

Having lost on this contention, they now seek to avoid liability on the ground that although the representation was false, it was but an expression of an opinion and not actionable.

We submit that a representation as to the character of land is a representation of a fact; that the quality of land is a fact. Indeed, the defendants in

their brief on the facts, filed in the Circuit Court of Appeals, in discussing Judge Bean's finding that the lands in suit were known oil lands, use the following language: "Mineral quality is a fact. In order to be known it must exist." How, then, can it be contended that a representation that the lands were nonmineral in quality is not a representation of a fact?

Numerous cases have been before this court in which patents have been canceled because of fraudulent representations as to the mineral character of the land. One of the latest cases is the *Diamond Coal* case which was a suit to cancel patents issued under the homestead law upon soldiers' additional entries. Each application for entry was accompanied by "an affidavit that there was not to affiant's knowledge any deposit of coal or other valuable mineral in the land and that it was essentially nonmineral." The Court said—

> the affidavits were made and submitted as proof that the character of the lands applied for was such that they properly could be acquired under that law. The land officers accepted the affidavits and the statements therein as true and allowed the entries and issued the patents. 233 U. S. 238.

The case turned upon the question as to whether the representation that the land was nonmineral was false. The Court said:

> Questions of fact . . . such as whether lands sought to be entered are mineral or nonmineral are committed to the land officers for determination; and as their decision must rest

> largely or entirely upon proofs outside the official records, it is possible in *ex parte* proceedings . . . for applicants, by submitting false proofs to impose upon those officers. . . . A patent secured by such fraudulent practices . . . may be annulled in a suit by the Government against the patentee. p. 239.

The proofs submitted in that case were the non-mineral affidavits. They were submitted, as in the case at bar, to prove the lands were non-mineral and therefore could be acquired under the homestead law. The Court found the lands were mineral and ordered the patent annulled.

To the same effect is *Washington Securities Co.* v. *United States*, 234 U. S. 76, wherein four patents were canceled on the ground that the patentee fraudulently procured them upon false representations as to the character of the land.

IX.

THE DEFENDANTS WHO ARE TRUSTEES IN DEEDS OF TRUST EXECUTED PRIOR TO THE ISSUANCE OF THE PATENT ARE NOT PURCHASERS FOR VALUE OF THE AFTER-ACQUIRED PROPERTY AND THE LIEN THEREON IS SUBORDINATE TO THE RIGHT OF THE GOVERNMENT TO CANCEL THE PATENT FOR FRAUD ON THE PART OF THE PATENTEE.

The defendant, Southern Pacific Company, is a corporation of Kentucky and operates the railroad under stock ownership and lease from the Southern Pacific Railroad Company. R. II–1344.

The defendant, Southern Pacific Railroad Company, is a consolidation under date of March 10, 1902, of the Southern Pacific Railroad Company of California, the Southern Pacific Railroad Company of Arizona and the Southern Pacific Railroad Company of New Mexico (R. II–1360), and is the successor in interest of the Southern Pacific Railroad Company mentioned in the granting act of 1866 and the joint resolution of 1870. R. I–28.

The defendants, Homer S. King and James K. Wilson, are trustees under a deed of trust executed by the Southern Pacific Railroad Company bearing date April 1, 1875, securing the payment of $46,000,000.00 of bonds.

The defendant, Central Trust Company of New York, is trustee under a deed of trust executed by the Southern Pacific Railroad Company and the Southern Pacific Company, bearing date September 15, 1893, securing the payment of $58,000,000.00 of bonds and said Trust Company is also trustee under a supplemental trust deed, bearing date August 18, 1898, amending the said former trust deed of September 15, 1893. R. I–25.

The defendant, Equitable Trust Company, is trustee under a deed of trust dated January 3, 1905, which the other defendants aver is not a lien upon the lands involved in this suit. R. I–26.

The defendant, Kern Trading and Oil Company, is a subsidiary of and owned by the defendant Southern Pacific Company, being organized and conducted as its fuel department.

The deeds of trust which it is claimed are liens upon the lands in suit were executed before the Southern Pacific Railroad Company acquired its patent to said lands. So that when the deeds of trust or mortgages were executed the trustor or mortgagor did not own the lands but their acquisition in the future was merely contemplated.

The title therefore of these after-acquired lands is subject to all liens and equities valid against the mortgagor. The mortgagee stands in the shoes of the mortgagor and is in no sense a purchaser for value.

United States v. *New Orleans Railroad*, 12 Wall. 362, 365; *Fosdick* v. *Schall*, 99 U. S. 235; *Central Trust Co.* v. *Kneeland*, 138 U. S. 414, 423.

In *Harris* v. *Youngstown Bridge Co.* (C. C. A.), 90 Fed. 322, 328, Judge Taft reviews the authorities and concludes by saying:

> The mortgagee of after-acquired property is not a purchaser for value and cannot acquire an interest by way of lien greater than that which the mortgagor has himself acquired. The lien of the mortgage attaches to after-acquired property in the condition in which the mortgagor takes it from his vendor, and subject to all known liens and equities valid against the vendor, and also subject to all liens or equities valid against the vendee and mortgagor which arise in the act of purchase or acquisition, and therefore necessarily qualify its scope and extent.

Where the legal title to property has been obtained through fraud, a court of equity has jurisdiction to reach the property either in the hands of the original wrongdoer or in the hands of any subsequent holder, until the rights of a purchaser for value intervene. *Moore* v. *Crawford*, 130 U. S. 122, 128; *Pomeroy Eq. Jur.* (3d ed.), sec. 1053; *Williamson* v. *N. J. Southern R. R. Co.*, 29 N. J. Eq. 311.

X.

SUBSEQUENT DEVELOPMENT IN THE ELK HILLS.

Belief that the land was valuable for oil at the time of the proceedings which culminated in the patent is an essential element of the charge that the nonmineral affidavits were false. Of necessity the conditions adequate to engender such belief were those existing at that time. If the affidavits were not false then they could not become so by any subsequent change in the conditions. *Diamond Coal* case, 233 U. S. 236, 240.

Adhering to this established rule the Government refrained from any attempt to show discoveries of oil in the Elk Hills subsequent to the patent. But the defendants, claiming that the converse of this rule was not binding on them, undertook to show the original good faith of the selection by testimony of the result of subsequent operations. The effort of the defendants was to show that the lands have since been demonstrated not to be valuable for oil, and

thus to prove that the opinions of expert geologists and practical oil men (including those of the Railroad Company), based upon known conditions prior to the patent, were wrong, and that the belief of the railroad officials at that time that the land was valuable for oil was a mistaken belief. If successful, the defendants claim the right to keep the lands, thus procured by means of false affidvaits as to belief of nonmineral character, because they would have been entitled to the lands if the false affidavits had not been made and if their actual character had been then as now demonstrated. This is but the assertion of a right to retain that which has been obtained from the Government by deceit and perjury because it might have been obtained honestly if the railroad officials had chosen to testify the truth and risk an adverse finding. In this the defendants overlook the point that the land officers of the Government, within whose exclusive jurisdiction lies the power to determine the question thus presented to the court, have never had an opportunity to determine it. It was not presented to them and they were prevented from considering it by the dishonest and perjured acts of the Company.

But the defendants were not successful in their effort to prove by subsequent development that the known conditions prior to the patent were not a sufficient basis for belief of oil character. The very beginning of oil development in the Elk Hills soon after the patent under the same conditions

that existed before proves the contrary. More especially is this true because the principal operations shown were those of the Associated Oil Company, a creature of the Railroad Company. Moreover, the result of the operations could not help the defendants upon any theory unless they amounted to a demonstration that the land was not valuable for oil, for only in that event could it be said that the geologists and oil men and railroad officials were mistaken in believing the land to be valuable for oil. In fact, however, the testimony demonstrated the contrary.

It will be seen that while some of the wells drilled in the Elk Hills, beginning in 1910, were unsuccessful because of improper location, insufficient depth, and other causes, yet the evidence demonstrates that several successful, productive oil wells were drilled in 1910, 1911 and 1912 by the Associated Oil Company on the even numbered sections adjoining those in suit.

At that time the Associated Oil Company was a subsidiary of the Southern Pacific and absolutely under its control, W. F. Herrin, the General Counsel then and now of the Southern Pacific, being chairman of the board of directors. R. VI–3593–3603.

(*a*) *Successful Wells of the Associated Oil Company.*

The evidence shows that whenever wells were favorably located with reference to the well known anticline in the Elk Hills and were properly drilled,

oil was struck in large quantities coming from sands of the greatest thickness in the Kern County Oil fields.

The three successful wells drilled by the Associated Oil Company were on sections 24 and 26 of 30–23 and section 30 of 30–24. The Company spent about $170,000.00 on these three wells and spent in development work in the Elk Hills in all about $500,000.00.

At the time the Southern Pacific, through its subsidiary made these expenditures, in 1910 to 1912, the known conditions as to the Elk Hills were the same as they were in 1904 when it obtained its patent for the lands in suit. When W. F. Herrin, General Counsel and E. T. Dumble, Consulting Geologist of the railroad, as members of the Board of Directors of the Oil Company, authorized the expenditure of this money for the development of the lands interspersed with those in suit, they had no greater knowledge as to the geological conditions or the probabilities of obtaining oil than that possessed by the railroad geologists and officials in 1904. The conditions in 1910 were plainly such as to engender the belief that the Elk Hills contained oil of such quality and quantity that it could be extracted profitably and to justify expenditures to that end. And Herrin and Dumble, representing the Railroad Company's stock which controlled the Oil Company, voted to expend more than one-half million dollars because they believed the lands could be mined profitably and the results justified their belief. It

may be claimed that the drilling of a successful well in the Buena Vista Hills by the Honolulu Oil Company caused the Associated Oil Company to begin drilling in the Elk Hills. However, F. M. Anderson, their geologist, testified that there was no connection between the Buena Vista Hills and the Elk Hills and that the formations are in no way correlated. R. IV–2451–3. The successful Honolulu well is on section 10 of 32–24, nine miles from the nearest lands in controversy, while in 1904 there were many successful wells in the McKittrick District, only three or four miles from the lands in controversy.

The Associated Oil Company began its development work on sections 24 and 26 of 30–23 and 30 of 30–24, under leases from persons who made their locations for oil on January 1, 1910, agreeing to pay $500.00 per acre if purchased in one year and $750.00 per acre if purchased in two years from the date of the lease. After the Oil Company erected derricks, they ascertained there were prior locators claiming to have made discoveries of Fuller's earth on the properties (R. VI–3622) and the General Manager reported to the Executive Committee of the Board of Directors, W. F. Herrin, President, in the chair, on December 20, 1910, that he had entered into a supplemental agreement with the lessors reducing the purchase price and that he—

> had a verbal understanding with the prior locators to receive three forty-acre pieces of each quarter section for drilling a well on

each quarter and also lease on the remaining forty in each quarter with option to purchase the same at One Thousand Dollars per acre. R. VI–3623.

On March 20, 1911, the General Manager reported to the Executive Committee:

> In examining into the titles to our Elk Hills property, the present development of which indicates it to be oil producing land, I find that the mineral filings on which we base our title to this property were made subsequent to September 27, 1909.
>
> Mineral filings were made on these lands prior to September 27, 1909, and are now held by Messrs. McKittrick, Jastro, Tevis, et al of Bakersfield.
>
> The claimants under these mineral filings have asked for a patent on Section 24, 30–23 and Section 30, 30–24 by reason of their discovery of Fuller's earth. R. VI–3624.
>
> I recommend the acquisition of these conflicting titles for the reason that they were made prior to September 27, 1909, and the work we have done, if applied against these filings would insure the issuance of a patent to us, providing we discover oil on each quarter section, which I think probable. In fact, we have made sufficient discovery on section 26 to enable us to obtain a patent at this time had the filings owned by us been made prior to the date of withdrawal.
>
> Mr. Scribner had some negotiations with Mr. Jastro looking to the acquisition of these filings made prior to September 27, 1909, and

had agreed upon terms at which we would acquire the same. They afterwards withdrew negotiations. R. VI–3625.

An effort to buy out the prior locators was made but was unsuccessful and the parties under whom the Associated claimed filed a protest in the Land Office at Visalia against the application for a patent based on alleged discovery of Fuller's earth. This is the contest referred to by Capt. W. H. McKittrick and in which L. J. King, Superintendent, and W. A. Williams, geologist of the Associated, testified on behalf of the protestants that there was no commercial fuller's earth in the lands—that they were valuable oil lands and that the Associated had drilled successful wells. These witnesses also testified that other wells which had been drilled in the Elk Hills were unsuccessful because they were not properly located and from errors in drilling and other causes. Exhibits 9–C, 9–E, 9–M, and 9–O.

The Associated Oil Company proceeded with its drilling and on August 29, 1911, the general manager reported that he had issued instructions to proceed with the drilling of wells in 24 of 30–23 and 30 of 30–24; as to the well on 26 of 30–23, to discontinue work as soon as the field department completed perforating it and testing it to see the result obtained. R. VI–3633. He reported that he had ordered work stopped on the well on section 5 of 31–24 and section 22 of 30–23.

In the General Manager's report of September 19, 1911, he said "in reference to the producing well on section 26, Elk Hills, which well is now producing forty-five barrels of oil per day" that he recommended the company should make demand upon the locators under whom it claimed to apply for patent, and his recommendation was adopted. The report discussed the effect of the Pickett Bill, which was passed June 25, 1910, 36 Stat. 847, and in his report of November 28, 1911, the General Manager stated "In view of the uncertainty as to the status of our right to obtain patents to any of these lands, even if discovery is made, I recommend that we discontinue work entirely on these lands with the exception of the pumping of well on Section 26 and the deepening of well on Section 30" (R. VI–3639), which recommendation was adopted. At the meeting of the Executive Committee of the Board, held June 25, 1912, Mr. Wm. Sproule, President of the Southern Pacific, presiding, the following resolution was unanimously adopted:

> Resolved that the General Manager be and he is hereby authorized and directed to instruct the Field Department not to make any further expenditures until otherwise ordered by this committee on any lands in Elk Hills except on the lands in sections 24, 26 and 30, on which wells have been brought in, and to limit the expenditures on said lands to such as may be necessary in the operation of said wells. R. VI–3645.

These official records show that three wells had been "brought in" by this Oil Company, owned by and operated through the officials of the Southern Pacific; that a "producing well" had been developed and that "sufficient discovery had been made to enable us to obtain patent" and that the directors passed a resolution requesting the locators under whom the Oil Company claimed to immediately make application for patent under the provision in their lease that "upon completion of any well in which oil has been developed, lessors shall make application for patent for land upon which the well is located." R. VI–3636.

If the Associated Oil Company had developed the wells on the odd numbered sections in 30–23 involved in this suit, instead of on sections 24 and 26, and had filed a protest against the Railroad Company's application for these lands as agricultural lands, there can be no doubt that the Associated Oil Company would have prevailed in the contest and have secured patents for the land as mineral land.

In a suit by the Government against a land grant railroad to annul a patent fraudulently covering mineral lands, excluded from the granting act, the Government is not in a less favorable position than a claimant who alleges that the land is mineral.

Though the development work by the Associated Oil Company brought in producing wells and entitled it to patents for said lands as mineral lands, yet it is contended that this development work established

the nonmineral character of the lands upon which these wells were drilled and also fixed a similar status to the adjoining lands in suit. Enough has been shown from the records alone of the Executive Committee of the Associated Oil Company to show that defendants' contention is wholly without merit.

While admitting that the three wells on sections 24, 26 and 30 developed oil, the defendants contend that oil was not produced in paying quantities.

P. G. Williams, the auditor of the Associated Oil Company, testified that he prepared from the regular reports or letters sent in by the superintendent in charge, a tabulation of the production of the three deep wells. The production charts were offered in evidence by defendants. R. V–3125.

W. E. White, chief clerk of A. F. L. Bell, the chief engineer of the Associated Oil Company, testified that he prepared graphic logs showing the history of the drilling and production of the three deep wells and that he made these logs from the original drilling reports. These logs were offered in evidence by defendants and constitute exhibits 172–3–4. They would not introduce the original drilling reports.

The Government objected to the introduction of the graphic logs unless the original drilling reports from which the witness stated he made them were introduced, counsel for defendants stating that he had them in court. The Government introduced and read into the record these drilling reports (R. V–3196,

3159) and they cover pages 43 to 562 of the volume of "Documents and Evidence Not Printed."

The logs purport to be a condensation of the daily drilling reports, but an examination of these original reports shows that the logs are full of inaccuracies, mistakes, omissions and other errors, many of which the witness White admitted in his cross examination, beginning at page 3191 of Volume 5, and covering more than a hundred pages. As will appear later herein, the logs greatly reduce the production of the wells as shown by the daily reports. This doubtless accounts for the non-introduction by the defendants of these reports and their introduction by the Government.

As these daily drilling reports cover more than 500 pages of the typewritten transcript, it is impracticable in this brief to refer but briefly to them and then to the reports for only a few months of one of the wells, but the differences between the reports and defendants' logs for these months will suffice to show that the logs are thoroughly unreliable.

The well on 24 of 30–23.

The production of the well on section 24 of 30–23 according to the defendants' charts and logs was 2965 barrels for the month of June, 1912 (R. V–3126), whereas the production as shown by the daily reports from which defendants' witnesses professed to have made their charts and logs was 5160 barrels (pages 555 to 565 of volume of "Documents and

Evidence Not Printed") and the well was shut down for five days during that month.

The graphic logs made by White and the production charts made by Williams showed the same total production for each well and in an effort to explain the great discrepancies between the totals as shown by the drilling reports and the totals made up by these employees, they claimed the reports were only estimates—but this is not the fact but they are the daily record of the production as sent in by the superintendent, King. The difference may be accounted for by the statement made by White that "the total which I have here is *the amount of oil sold.*" R. V-3232. In other words, their total production does not in fact represent the total oil produced but the total oil sold.

The report for June 12th says: "At present time, is making 800 to 900 barrels," and the report dated June 17th says: "making good clean oil, produced at lowest figure 750 barrels of oil yesterday. Without doubt will increase in flow."

The defendants' production chart for May, 1912, for this well shows 240 barrels—but defendants do not call attention to the fact that during this month they were continuously at work on the well and the casing was not perforated until the last of May and the well was not ready for the pump until June (pages 553–4–5 of "Documents and Evidence Not Printed") when, as we have seen, some days it produced from 750 to 900 barrels. The fact that it did not produce before completion is of no importance.

For July the defendants credit the well with 247 barrels. The drilling reports show that from the first to the eleventh the well was shut down, while they were at work on it, and on the 12th it was "placed on the pump at 2,500 feet, flowing about 350 barrels per day through tubing."

On 14th "made about 360 barrels." On 15th "pulled pump. Same sanded up to 2,500 feet," yet flowed 75 barrels. On 16th, 17th, 18th, sanded up, continued to flow 75 barrels per day. On 19th, it flowed 100 barrels and on 20th, 75 barrels though still filled up with sand to 2,500 feet. On 21st "filled it with oil to clean it out and the process of cleaning it out continued throughout the rest of July. Pages 557–8–9 of "Documents and Evidence Not Printed."

So this well was in trouble throughout the month of July and yet the drilling reports show that for the seven days from the 14th to 20th it flowed 830 barrels, whereas the defendants have placed its production for the entire month at 247 and it was upon this basis that Anderson estimated that the well would not pay for itself in ten years. Exhibit 26.

Let us now examine the drilling reports of this well for August, the last of the four months used by Anderson in Exhibit 26. The well is credited by defendants for that month with 150 barrels. R. V–3126. During the first seven days the drilling reports show the well was being cleaned out, yet it flowed 50 barrels on the 3d, and one hundred barrels each on the 4th and 5th. On the 8th the driller lost

the drilling bit, and for the next ten days, while fishing for the bit weighing 250 pounds (R. V–3278) jammed in the casing with less than ¼ inch space through which the oil could flow, the well continued to flow 100 barrels of oil per day until it was closed down under the general order from the Company, with the drill bit still in the well. Pages 559, 560 "Documents and Evidence Not Printed."

The defendants credit this well for August with 150 barrels, while their own reports show they were cleaning it out the first seven days of the month and lost the bit on the eighth and were unsuccessfully fishing for this until they began to cap and close the well on the 19th and that they finished capping it and shut it down with all the other wells on the 23d, still the well flowed, under these adverse circumstances, 1200 barrels in 12 days and in the Superintendent's report for August 10th, he says the 100 barrels per day was "actual measurement in tank."

The drilling reports show that on August 11th, 12th, 13th and 14th this well, while they were fishing for the drilling bit, was not only flowing 100 barrels of oil per day, but was also flowing 3,000,000 cubic feet of gas per day.

The logs and charts offered by the defendants as to the wells on 26 of 30–23 and 30 of 30–24 are no more an accurate or true representation of these wells than are the logs and charts of the well on 24 of 30–23, many of which inaccuracies and misrep-

resentations have been pointed out. The limits of this brief prevent an extended reference to these.

The well on 30 of 30–24.

J. W. Kingsbury, mineral inspector and geologist, testified that on June 10, 1911, he met L. J. King, Superintendent, W. O. Maxwell and Mr. Barnes, representatives of the Associated Oil Company, at the well on 30 of 30–24.

> I remember speaking to Mr. King and asking him for permission to look at the well, and at the same time he informed me that there had been a discovery of a great amount of oil on Section 30 of 30–24, in one of the Associated Oil Company's wells. I went with Mr. King and Mr. Maxwell onto Section 30 to look at the well and saw oil coming from the well, which I estimated at about 2,000 barrels in 24 hours. Mr. Maxwell said that he thought it was about 5,000 barrels per 24 hours. . . . On January 24th, 1912, I went out with Mr. McCabe, Head Driller of the Associated Oil Company, and I gauged the well on Section 30, 30–24, and according to my gauge it was producing 385 barrels per 24 hours and the gravity of the oil was 24.2 Baume. R. VI–3688–9.

James F. McCay testified that he was an oil driller and in charge of the well on 30 of 30–24 and that it started off at 50 barrels of oil per day and after it was put on the pump it gradually increased in volume and he gauged it and it was producing at the rate of 406 barrels per day. R. I–411.

The well on 26 of 30-33.

The evidence shows that the well on 26 was drilled to 3,548 feet, but caved and ruined, then was redrilled from 2,837 to 4,030 feet and again ruined. Before it was redrilled it came in as a gusher. The drilling reports and defendants' log show 159 feet of oil sand in this well and defendants' expert, F. M. Anderson, admitted that this thickness is more than twice as thick as the average thickness of oil sands in wells in the Midway, McKittrick and Sunset fields. R. IV–2629–2635.

Defendants' logs and charts not only grossly misrepresented the production of the three deep wells but the formations are misrepresented and the occurr nce of sands and boulders concealed. Defendants' expert, F. M. Anderson, testified that the Elk Hills were too far removed from any ancient shore line to contain sands sufficient for a reservoir for oil in commercial quantities and that "boulders" were evidences of shore line conditions. The drilling reports specifically show that boulders were encountered on a number of days, but their occurrence was not noted on defendants' logs or charts. The presence of boulders would have destroyed Anderson's shore line theory, hence their suppression.

After the defendants had refused to offer the original daily reports in evidence and the Government had offered them and had established the incorrectness of the defendants' tabulations, it is passing

strange that the defendants failed to offer L. J. King, the superintendent who made the reports, to substantiate their contention that the reports were only estimates. The reports do not profess to be estimates and if King had been offered by them, he no doubt would have stated that the reports as sent in were correct. Besides, there was another reason why King was not examined by the defendants and this was because he had been a witness in the contest at Visalia in which the Associated Oil Company, was contesting, through its lessors, the application for a patent on the ground of a discovery of Fuller's earth of the prior locators of the sections on which these producing wells were located, the Associated Oil Company contending that the wells had established the valuable oil character of the lands. It is also significant that the defendants did not produce W. A. Williams, the chief geologist of the Associated Oil Company, who, W. E. White admitted, made up the logs which were introduced by defendants. R. V–3325. Williams was also a witness in the Visalia contest in which the railroad through its subsidiary oil company was attempting to establish the valuable oil character of these lands with a view of securing a mineral patent, and it could not consistently use the same witnesses in its effort in this case to show their non-mineral character.

(b) Unsuccessful wells.

There were a number of wells which were drilled in the Elk Hills in 1910 and 1912 which were not productive but in nearly every one of them there was a showing of gas and oil. The evidence establishes the fact that they were not successful either because they were not properly located with reference to the axis of the anticline or they were drilled to an insufficient depth, the depth varying from a few hundred feet to approximately four thousand feet, the depth of the three successful wells of the Associated Oil Company. Space will not permit a detailed reference to the voluminous testimony covering these wells.

The defendants' chief expert, Anderson, admitted that the wells in the Elk Hills which were drilled by the Associated Oil Company, and discovered oil, are reasonably near the axis of the anticline and are on lands contiguous, adjoining and interspersed with the lands in suit and that many of the wells which he observed on the fringe of the hills and which were not in operation in 1912 "are remote from the axis of the anticline and all of them are in very unfavorable position, even those on the anticline." R. IV–2640–2.

The defendants in their brief upon the facts in the Circuit Court of Appeals refer specifically to four of the unsuccessful wells, to-wit: Redland Oil Company well on 30 of 30–23, the Hill Crest on 28 of 30–23, The Midway Pacific on 32 of 30–23 and the Scottish Oil Fields on 20 of 30–23.

In the Redland well, John Lang, defendants' witness, testified that gas was found at 520 feet and a

color of oil at 1,050. R. III–1954. At 1,300 feet gas was discovered in sufficient quantity to ignite and set fire to the rig and burned it down. R. III–1956. He further testified that the well went down 2,850 feet and that wasn't deep enough to prove anything definitely about that being oil territory; that oil might be gotten in paying quantities from 3,500 to 4,000 feet. R. III–1963.

As to the Hill Crest well, Lang testified they went down to 1,670 feet and that was not deep enough to test the territory. R. III–1962. He also testified this company hasn't abandoned the property, but keep a watchman there and hope to develop the property as soon as the necessary funds are secured. R. III–1960.

As to the Midway Pacific well, Lang testified it was drilled to a depth of 2,425 feet and that this was not deep enough to test it. R. III–1963. A trace of oil and gas was encountered at 1,535 feet. R. IV–2314.

As to the Scottish Oil Fields well, T. M. Storke, defendants' witness, and one of the organizers of the Company, admitted that the well was not located upon the advice of a geologist. At 850 feet some gas was struck and at 1,400 feet a heavy flow of gas and at 2,600 feet considerable gas and after that gas would break through every now and then. R. III–2044.

> Our well was started in November, 1910, subsequent to the withdrawal order of 1909 and 1910 so if we had discovered oil in com-

> mercial and paying quantities before we pulled our tools from the well we were uncertain as to the validity of any title we might acquire from the Government. R. III–2045.

John Lang further testified:

> The fact that the Government of the United States has withdrawn from entry the land in the Elk Hills has to some extent had something to do with our not doing anything further with our locations as it makes it doubtful whether or not we can get title to the land. The withdrawal, I think, has also had a tendency to discourage capital and has discouraged locators because of their inability to get capital interested. R. III–1955.

Instead of the development in the Elk Hills tending to establish the non-mineral character of the lands in suit, we submit that it has the contrary effect. Dr. Branner testified that it confirmed his previous belief in its valuable oil character (R. II–1003) and others testified to the same effect.

During the trial defendants called for the production of the reports made to the Government by Robert Anderson. President Taft on September 2, 1912, withdrew the lands in suit, together with other lands in the Elk Hills for the use of the Navy and established Petroleum Naval Reserve No. 1. This withdrawal order was based largely upon the geological investigations made by Robert Anderson. His reports, upon demand, were produced by the government but after inspecting them, the defendants did not offer them and they were thereupon

offered in evidence by the Government. In a report made in August, 1912, Anderson stated that he believed in most cases where the wells had not been proven successful that the tests were not adequate and called attention to the three successful wells of the Associated Oil Company. Ex. 5–T. After a visit to the Elk Hills he reported in November, 1912, that in his opinion the reserved area would yield 100,000,000 barrels of oil as a conservative estimate. His original estimate was 250,000,000. He made reference in this report to the development which had taken place in the Elk Hills and he concluded that the southwest fringe of the hills, where the unsuccessful wells had been drilled, would not be as productive as the summit where the lands in controversy are situated and that the only three wells drilled to an adequate depth in the central part of the hills were the Associated Oil Company's wells and that these struck zones in which the oil was under pressure and spouted, the one on section 24 having come in at the rate of 1,000 barrels per day and the other on section 30 having produced from 150 to 300 barrels per day and both sanded up after some days. Ex. 5–V.

The Associated Oil Company has not abandoned its wells in the Elk Hills. M. H. Whittier, defendants' witness and a director of the Oil Company, testified that the Oil Company had not abandoned any of its property in the Elk Hills. R. III–1987. This also clearly appears from the testimony of J. W. Kingsbury. R. VI–3692–6.

CONCLUSION.

We submit that the "known conditions" and other circumstances as established by the evidence in this case are remarkably similar to those in the *Diamond Coal* case, 233 U. S. 236, 241–248. In that case the Court said the evidence established the following facts:

> (1) The patents were all secured by means of affidavits and proofs, . . . declaring that the lands were essentially non-mineral, were not known to contain any deposit of coal and were sought for agricultural purposes, and not for mineral land.

The patent here was secured by similar proofs.

> (2) For many years the district in which the lands were situate had been known to contain coal. They were surveyed in 1874, and the surveyor reported one of the sections as coal land, the others being contiguous to land similarly reported. This was shown in the field notes and upon the official plats.

The evidence here shows that the lands in suit were in a well recognized oil district and surrounded by surface indications of oil and withdrawn from entry because of their probable oil character and the survey of 1901 reported them as mineral (oil) lands and this was shown in the field notes and upon the official plat.

> (3) Along the western base of the eastern hills was the outcrop of another coal bed. This outcrop had been weathered down and

> in some places covered by the wash from above, but it could be traced upon the surface for several miles. It had been opened up at different places and the openings disclosed a coal bed, from 6 to 14 feet in thickness dipping to the west at an angle of from 15 to 25 degrees from the horizontal, as did the cretaceous rocks with which it was interstratified. This coal was of superior quality and recognized commercial value, and the rocks containing it were the coal bearing strata of that region.

The outcrop of oil bearing strata was exposed on the eastern flank of the Temblor Range and its commercial value for oil was demonstrated by more than two hundred producing wells drilled prior to patent, extending for thirty miles from McKittrick to Sunset. This outcrop was west of and within a few miles of the lands in suit and dipped towards them.

> (4) There was nothing upon their surface showing the presence of coal beneath, nor anything indicating that the bed outcropping on the east and dipping to the west did not pass through them.

In our case there were upon the surface of the lands in suit and upon those in the vicinity, oil sands, seepages and other indications of oil and there was nothing indicating that the outcropping did not pass through the lands in suit, but the evidence of Dr. Branner, Veatch and the reports and maps of Owen and other evidence clearly show that there was every reason to believe the outcrop did pass through

the lands in suit, and it is conceded that the anticlinal structure of the lands is ideal for the accumulation and retention of oil.

> (5) Unless valuable for coal, they were not worth to exceed a dollar and a quarter an acre. They were arid sage brush lands, about 7,000 feet above sea level, and afforded very limited pasturage. Without irrigation they were not susceptible of cultivation, and the cost of securing water for that purpose was prohibitive.

The evidence shows that the lands now sued for are of like character.

(6) The expert for the Government (Veatch) having in mind the known geological conditions—

> gave it as his opinion that the coal bed extended into and through the lands in question and that practical coal men would regard the lands as valuable for coal and invest in them as such. He accordingly pronounced them coal lands within his acceptation of that term. This conclusion had substantial support not only in the facts already recited, but also in the fact that the Company's maps, made three years before the suit was begun, showed that it was intended to project its mining operations westward from the outcrop a mile and a half and had designated the intervening lands, which included some of those in controversy, as coal lands.

Likewise in the case at bar the same expert and also Dr. Branner, upon similar geological conditions,

gave it as their opinion that practical oil men would regard the lands as valuable for oil and invest in them as such. This conclusion likewise had substantial support in the fact that the Company's maps and reports, made by its experts two years before patent, showed that it was intended to extend its oil operations eastward from the outcrop beyond the lands in suit and had designated lands interspersed with the lands in suit as oil lands, had segregated them from its agricultural lands, and was going to develop them for oil through its subsidiary, the Kern Trading and Oil Company.

> (7) In short, the company, without care as to the means, sought and acquired the lands because it regarded them as valuable for coal. Its view and purpose were also reflected by its maps and tax returns.

Here the Company's purpose to acquire the lands without care as to the means is reflected in its maps and lease and in the secret file of Eberlein's correspondence.

On account of the known conditions, the belief was generally entertained in 1903 and 1904 that the lands in suit were valuable oil lands. This belief was entertained not alone by the experienced and practical oil men of that region, but also by the geologists and responsible officials of the Railroad Company, evidenced by their acts and deeds, and by the documents and correspondence which furnished plenary evidence of belief in the oil character of the lands and their

purpose to deceive the officers of the Land Department.

In view of the evidence establishing the similarities in the essential facts constituting the known condition in the two cases and in other respects and the close analogy between coal and oil in their mode of deposition and situation in the earth as shown by the evidence, we submit that the rule laid down in the *Diamond Coal* case applies to the facts of this case and tested by that rule, the known conditions at the time of the proceedings which resulted in the patent, were plainly such as to engender the belief that the lands contained oil deposits of such quality and in such quantity as would render their extraction profitable and justify expenditures to that end and that the lands were and are known mineral lands excepted from the grant to the Railroad Company and that the patent was procured by the false and fraudulent representations of the Railroad Company.

It is respectfully submitted that the decree should be reversed.

J. CRAWFORD BIGGS,
Special Assistant to the Attorney General.

FRANCIS J. KEARFUL,
Assistant Attorney General.

FEBRUARY, 1919.

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CASES ADJUDGED

IN THE

SUPREME COURT OF THE UNITED STATES

AT

OCTOBER TERM, 1919.

UNITED STATES *v.* SOUTHERN PACIFIC COMPANY ET AL.

APPEAL FROM THE CIRCUIT COURT OF APPEALS FOR THE NINTH CIRCUIT.

No. 179. Argued March 5, 6, 1919.—Decided November 17, 1919.

Lands valuable for oil and known to be so at the time of their selection by and patent to the Southern Pacific Railroad Company under the granting Act of July 27, 1866, c. 278, 14 Stat. 292, were excepted from the grant as mineral lands; and a patent for such lands, issued in reliance upon representations that the lands were not mineral, made by the company's officials when they believed the fact was otherwise, is subject to be set aside in a suit by the United States. Pp. 7 *et seq.*

In order to establish the character of lands, in this connection, as lands valuable for oil, it is not necessary that they shall have been demonstrated to be certainly such by wells actually drilled thereon and producing oil in paying quantities after a considerable period of pumping; it suffices if the conditions known at the time of patent, as to the geology, adjacent discoveries, and other indicia upon which men prudent and experienced in such matters are shown to be accustomed to act and make large expenditures, were such as reasonably to engender the belief that the lands contained oil of such quality and in such quantity as would render its extraction profitable and justify expenditures to that end. P. 12.

In this case the conditions evincing oil value in this sense persisted

after the date of patent; and the court therefore does not consider the question whether, if such conditions were proven illusory by subsequent drilling, the demonstration would support the patent. P. 14.

A report of a special agent that lands embraced in a railroad selection were non-mineral, but made in another connection and not relied on by the railroad company in renewing the selection or considered by the land officers in approving it and issuing patent, can not avail against proof that the lands were known by the company to be valuable for oil; nor is it of value as evidence of their non-mineral character if based on a superficial examination by one who was neither a geologist nor familiar with oil-mining. *Id.*

249 Fed. Rep. 785, reversed.

THE case is stated in the opinion.

Mr. J. Crawford Biggs, Special Assistant to the Attorney General, and *Mr. Assistant Attorney General Kearful* for the United States.

Mr. Charles R. Lewers, with whom *Mr. William F. Herrin* and *Mr. Joseph P. Blair* were on the brief, for appellees:

Opinion or surmise that oil might exist, at an unknown depth, from four to ten miles from its nearest known occurrence is not convincing proof that the conditions in 1904 "were plainly such as to engender the belief that the land contained mineral deposits of such quality and in such quantity as would render their extraction profitable and justify expenditures to that end." *Diamond Coal Co.* v. *United States*, 233 U. S. 236, 240.

The "belief" here referred to must be a belief practically tantamount in its effect to actual knowledge, that is, a belief based on facts so complete as to exclude rational doubt. Even actual knowledge (or such a fully warranted belief) on the part of the railroad agents would not justify the relief here asked by the Government if it went merely to the existence of some oil somewhere within the area sued for. This knowledge (or belief) must be shown to

have also comprehended every element of location, quantity and quality which would have given this oil commercial availability and value under conditions then existing. Without such knowledge there could be no fraud, that is, there could be no consciousness that the Government was being deprived of land which it ought to retain. The case of the Government is based on a theory which leaves out of consideration all questions of extent, position, availability or value of oil within the disputed areas. It frankly attempts to obtain a decree on the ground that every acre in suit has that nebulous thing termed an "oil value," that is, a speculative value, because the surroundings are claimed to promise that perchance oil will be found somewhere in the Elk Hills.

If hope or suspicion that oil might be found somewhere in the Elk Hills can give to the particular lands in suit the requisite mineral character to warrant cancellation, the railroad company may lose by judicial decree lands which subsequent drilling may prove to fall unquestionably within its grant. Such a result is hardly in accord with equity.

Only those lands may be lawfully taken from the railroad company which were in fact mineral lands at the time of patent. *Burke* v. *Southern Pac. R. R. Co.*, 234 U. S. 669, 679–680; *Davis* v. *Weibbold*, 139 U. S. 507, 524; *Deffeback* v. *Hawke*, 115 U. S. 392; *Diamond Coal Co.* v. *United States*, 233 U. S. 236, 239.

It is fair to assume that in the use of the two terms "mineral lands" and lands "not mineral" in the various acts of Congress for the disposal of the public domain, all public lands were intended to be described. "Mineral lands" were those which could be acquired under the mining laws. Lands "not mineral" were disposed of by the homestead, railroad, school and other "non-mineral" grants. *Cf. Benjamin* v. *Southern Pacific R. R. Co.*, 21 L. D. 390.

But, if the present contention of the Government is correct, there must be a third class not capable of disposal under any law (see comment of Circuit Court of Appeals on this, 249 Fed. Rep. 797). It is conceded that a mineral patent would not issue for a single acre in the Elk Hills on the showing of mineral made by the Government in this case, because the evidence is not sufficient to prove a *discovery* of mineral. *Chrisman* v. *Miller*, 197 U. S. 313. If there was not a sufficient "discovery" of oil on these lands to sustain a mining location, there obviously was not a discovery of oil sufficient to establish them as actually "valuable" oil lands. The word "discovery" in the mining laws means simply the ascertainment of the existence of the mineral, its disclosure. Unless these lands were known in 1904 to be actually valuable for the oil that was in them, the Government suffered no legal damage by their loss and the railroad company gained nothing not due it under its contract. Without legal damage to the Government there can be no relief on the ground of fraud. *Southern Development Co.* v. *Silva*, 125 U. S. 247; *United States* v. *San Jacinto Tin Co.*, 125 U. S. 273, 285; *United States* v. *Stinson*, 197 U. S. 200, 205.

The government case is founded entirely on the use of the word "belief" by this court in the case of *Diamond Coal Co.* v. *United States*, 233 U. S. 236, 239–240, without recognition, apparently, of the fact that the context indicates that what was there meant by "belief" was a conviction resulting from evidence so full and definite that it points with convincing force to a conclusion which includes not only the fact of the existence of the mineral but its extent and value as well. *United States* v. *Beaman*, 242 Fed. Rep. 876.

In the present case the mineral in question is oil, which is notoriously uncertain in its occurrence, extent and value as compared with coal; and the circumstances were such that a belief that these were valuable oil lands

could not have been a conviction that merchantable oil existed.

The fact that mere "indications" of the existence of oil are not proof of its existence or of its quantity or location has received judicial recognition on many occasions. *Brewster* v. *Lanyon Zinc Co.*, 140 Fed. Rep. 801, 806; *Nevada Sierra Oil Co.* v. *Home Oil Co.*, 98 Fed. Rep. 673, 675.

It is unsound to say that decisions under the mining law are here inapplicable because that law requires ocular demonstration of mineral in the land claimed, All that the word "discovery" means in that law (Rev. Stats., § 2320) is ascertainment of the existence of the vein or lode within the claim, and even in the case of a lode the exposure to the eye may be elsewhere. *Brewster* v. *Shoemaker*, 28 Colorado, 176, 182. The statute concerning placer claims makes no special requirement as to the actual place of discovery. The special statute of 1897 for the location of oil claims makes no change in this respect except the requirement that the proof show that the claim is "chiefly valuable" for oil (29 Stat. 525). Under the placer law it has been held that evidence of gold appearing within the claim, held insufficient in itself to constitute a discovery, might be supplemented by evidence showing greater amounts of gold disclosed in adjacent ground. These cases really hold that the evidence which actually constituted the full discovery came from without the claims. That such a condition might also exist as to an oil claim under exceptional facts is indicated by *Nevada Sierra Oil Co.* v. *Miller*, 97 Fed. Rep. 681, 688, 689. It is obvious that the practical question, with which the mining law is alone concerned, is whether there is valuable mineral within the claim. Evidence which certainly indicates this is discovery, no matter where the evidence is found, and the word "discovered" is used in the mining law in exactly the same sense in which it was used by this

court in the case of *Deffeback* v. *Hawke*, 115 U. S. 392, 404. Mere indications do not suffice.

Cases arising under the mining laws, in which it is held that oil is so uncertain in its occurrence and extent that surrounding conditions do not prove a discovery, are therefore directly in point. *Chrisman* v. *Miller*, 197 U. S. 313, 323; *Miller* v. *Chrisman*, 140 California, 444, 446; *Olive Land Co.* v. *Olmstead*, 103 Fed. Rep. 568; *United States* v. *McCutchen*, 238 Fed. Rep. 575, 591; *Bay* v. *Oklahoma Oil Co.*, 13 Oklahoma, 425; *Weed* v. *Snook*, 144 California, 439; *New England &c. Co.* v. *Congdon*, 152 California, 211; *McLemore* v. *Express Oil Co.*, 158 California, 559; *Dughi* v. *Harkins*, 2 L. D. 721; *Hutton* v. *Forbes*, 31 L. D. 325, 330; *Southwestern Oil Co.* v. *Atlantic &c. Ry. Co.*, 39 L. D. 335; *Butte Oil Co.*, 40 L. D. 602.

That belief not based on clear demonstration is not proof of mineral character, see also *Iron Silver Mining Co.* v. *Reynolds*, 124 U. S. 374; *Iron Silver Mining Co.* v. *Mike & Starr Co.*, 143 U. S. 394; *Sullivan* v. *Iron Silver Mining Co.*, 143 U. S. 431.

Fraud cannot be predicated upon the expression of an opinion concerning the existence of hidden mineral deposits. 2 Addison on Torts, Wood's ed., § 1186; *Southern Development Co.* v. *Silva*, 125 U. S. 247, 252; *Gordon* v. *Butler*, 105 U. S. 553; *Holbrook* v. *Connor*, 60 Maine, 578; *Synnott* v. *Shaughnessy*, 130 U. S. 572.

Mr. Justice Van Devanter delivered the opinion of the court.

This is a suit by the United States to cancel a patent issued December 12, 1904, to the Southern Pacific Railroad Company for eight full and two partial sections of land within the indemnity limits of the grant made to that company by an act of Congress, c. 278, 14 Stat. 292, it being charged in the bill that the railroad company

fraudulently obtained the patent by falsely representing to the Land Department that the lands were not mineral but agricultural, when it was known that they were mineral. From the evidence presented the District Court found that the charge was true and entered a decree of cancellation, and this was reversed by the Circuit Court of Appeals, one judge dissenting. 249 Fed. Rep. 785.

"All mineral lands" other than those containing coal or iron were excluded from the grant, and this exclusion embraced oil lands. *Burke* v. *Southern Pacific R. R. Co.*, 234 U. S. 669, 676–679. As will be seen presently, there can be no doubt that the patent was procured by representing that the lands were not mineral. Whether this representation was false turns upon the character of the lands as known when the patent was sought and obtained. If they then were known to be valuable for oil, as the Government asserts they were, they were mineral in the sense of the granting act.

To compensate for losses to the grant within its primary limits the railroad company was entitled to select other lands of like area within the indemnity limits, approval by the Secretary of the Interior being essential to passing the selections to patent. The established mode of making the selections was by presenting at the local land office selection lists designating the lands lost and those selected, with supporting affidavits showing, among other things, that the lands selected were of the character contemplated, that is to say, were not mineral but agricultural. These lists and affidavits would then be examined in that office and in the General Land Office, and ultimately the selections would be passed to the Secretary of the Interior for his action. That course was followed here.

The original list was presented November 14, 1903, but it encountered obstacles which led to the presentation of a substituted list covering the same lands on Septem-

ber 6, 1904. Both lists were presented by the company's land agent, Mr. Eberlein, and were accompanied by affidavits made by him stating that the lands selected "are not interdicted mineral" but "are of the character contemplated by the grant" and that "he has caused" them "to be carefully examined by the agents and employees of said company as to their mineral or agricultural character, and that to the best of his knowledge and belief none of the lands returned in said list are mineral lands." In acting on the substituted list the officers of the Land Department relied upon and gave effect to the statements in the supporting affidavits, and the selections were accordingly approved and passed to patent.

In truth Mr. Eberlein had not examined the lands or caused them to be examined by others. Nor had any examination of them been made on behalf of the railroad company, save such as is inferable from the conduct of its geologists and others presently to be noticed.

The lands were in the Elk Hills in Kern County, California; were rough, semi-arid and unfit for cultivation; were devoid of timber, springs or running water, and had but little value for grazing. Oil had been discovered in that region as early as 1899 and this had been followed by development and production on an extensive scale. In 1903 and 1904 there were many producing wells about 25 miles to the east and many within a much shorter distance to the west and south, some within three or four miles. The railroad company was then maintaining a corps of geologists—all informed by experience in the California oil fields—and under their supervision was searching for, developing and producing oil for fuel purposes. In 1902, upon the recommendation of one of its geologists, it withdrew from sale many of its patented lands surrounding and adjacent to those in suit "because they were in or near oil territory"; and early in 1903 it entered upon a systematic examination of its lands in

that territory "to determine as far as can be done from surface indications and geological structure where oil is to be expected in this region." In a letter to Mr. Kruttschnitt, one of the company's vice presidents, the chief geologist said when about to take up the examination: "So far as I can judge from the trip I have just made over this territory, this work promises results of greatest value to the company."

The lands in suit were surveyed in 1901 and the approved plat was filed in the local land office in May, 1903. The field notes denominated the lands as mineral and described them as in a mineral district "within which many successful oil wells have been developed." As before stated, the original selection list was presented November 14, 1903. Mr. Kruttschnitt already had written to the company's attorney at Washington requesting that "special attention" be given to securing a patent for the lands when selected; and shortly thereafter Mr. Eberlein wrote to the attorney, saying: "I am particularly anxious in regard to this list as the lands adjoin the oil territory, and Mr. Kruttschnitt is very solicitous in regard to it." Other letters and telegrams show that this special concern or anxiety persisted until the patent was issued.

In 1903 the company concluded to lease such of its lands as were considered "valuable for oil purposes" to a subsidiary company which was to be a sort of fuel department and to have charge of the development and production of oil. The geologists were requested to designate the lands to be thus leased and as a result of their investigation and recommendation several sections adjacent to and some immediately adjoining those in suit were included. The lease was to be signed on behalf of the railroad company by Mr. Eberlein as land agent and was laid before him for that purpose on August 2, 1904. Perceiving at once that its execution would not be in ac-

cord with his action in pressing the pending selection list he took the matter up with some of his superiors. To one he said in a letter: "We have selected a large body of lands interspersed with the lands sought to be conveyed by this lease, and which we have represented as non-mineral in character. Should the existence of this lease become known it would go a long way toward establishing the mineral character of the lands referred to, and which are still unpatented. We could not successfully resist a mineral filing after we have practically established the mineral character of the land. I would suggest delay at least until this matter of patent can be adjusted." To the same officer he protested against the action of the geologists in examining unpatented lands because "it was charging the company with notice." And to another, in New York, he explained "all phases of the matter," with the result that the "impropriety of the lease at that time" and the "very ambiguous position in which we would be placed" were recognized and he was instructed to withhold his signature and to place and keep all correspondence and papers relating to the lease in a separate and private file not accessible to others. He followed the instruction and the special or secret file remained in his possession "until," as he testified, "it was pried out" at the hearing.

But notwithstanding what was brought to his attention through the proposed oil lease, Mr. Eberlein continued actively to press the pending selection, and when, about a month later, he presented the substituted selection list it was accompanied by affidavits wherein he repeated his prior representation that the lands were not mineral. After presenting this list he had a conference with the chief geologist which prompted the latter, when writing to a superior officer, to explain that "for reasons of policy regarding certain unpatented lands it will be best not to execute the lease . . . at present."

The lease was placed by Mr. Eberlein in the special or secret file and some time afterward, when an effort was made to find it, he denied all knowledge of it. The denial was brought to the attention of the chief geologist, and he at once wrote to Mr. Eberlein calling attention to the conference just mentioned, and stating: "You explained that you were rushing certain lands for final patent and that the immediate execution of the lease showing our idea of what were oil lands might interfere with you and we agreed to defer the execution until that danger was passed." The chief geologist was a witness at the hearing and when asked what danger was meant, answered: "The danger that these lands might be delayed and not be patented because of their mineral character."

All that has been recited thus far is proved so well that it is beyond dispute. Fairly considered, it shows that when the patent was sought and obtained the lands had no substantial value unless for oil mining; that the interest and anxiety displayed by the company's officers in securing the patent were wholly disproportionate to the value of the lands for any other purpose; that the lands lay within a recognized and productive oil region which the company's geologists had been systematically examining to determine in what lands oil was to be expected, and that upon the advice and recommendation of its geologists the company was treating and dealing with adjacent and adjoining lands, of which it was the owner, as valuable for oil. Of course among practical men the character—whether oil or otherwise—of these adjacent and adjoining lands had some bearing on the character of those in suit, and this was given pointed recognition when the company's officers halted the signing of the proposed oil lease pending action on the selection list and caused the correspondence and papers relating to the lease to be secreted in a special and private file.

We think the natural, if not the only, conclusion from

all this is that in pressing the selection the officers of the railroad company were not acting in good faith, but were attempting to obtain the patent by representing that the lands were not mineral when they believed the fact was otherwise.

The observable geological and other physical conditions at the time of the patent proceedings, as shown by the evidence, were as follows: The area called the Elk Hills was about six miles wide and fifteen long and constituted an anticlinal fold or elongated dome—an occurrence favorable to the accumulation and retention of oil. The lands in suit were about its center. From five to ten miles to the west was the Temblor Range, the main uplift of that region. Along the east flank of that uplift for a distance of thirty miles was a series of outcrops or exposures of Monterey (diatomaceous) shales, the source of oil in California, and porous sandstone in which oil generally finds its ultimate reservoir. These strata were of exceptional thickness and it was apparent that oil in considerable quantity had been seeping or wasting from the sandstone. The dip of the strata was towards the Elk Hills and there were no indications of any faulting or thinning in that direction. Between the outcrop and the Elk Hills upwards of two hundred wells had found the oil-bearing strata and were being profitably operated, several of the wells being on a direct line towards the lands in suit and within three or four miles of them. In and beyond the Elk Hills were oil seepages and other surface indications of the existence of oil in the underlying strata, one of the seepages being near the lands in suit. Two wells had been sunk in the Elk Hills but obviously had not gone to an adequate depth and were not productive, although some oil was reached by one.

Geologists and men of wide experience and success in oil mining—all of whom had examined that territory and

some of whom had been familiar with it for years—were called as witnesses by the Government and gave it as their opinion, having regard to the known conditions in 1903 and 1904, as just outlined, that the lands were valuable for oil, in that an ordinarily prudent man, understanding the hazards and rewards of oil mining and desiring to engage therein for profit, would be justified in purchasing the lands for such mining and making the expenditures incident to their development, and in that a competent geologist or expert in oil mining, if employed to advise in the matter, would have ample warrant for advising the purchase and expenditure.

Other geologists and oil operators, called by the company, gave it as their opinion that the lands were not, under the conditions stated, valuable for oil; but as respects the testimony of some it is apparent that they were indisposed to regard any lands as within that category until they were demonstrated to be certainly such by wells actually drilled thereon and producing oil in paying quantities after a considerable period of pumping. This is a mistaken test, in that it takes no account of geological conditions, adjacent discoveries and other external conditions upon which prudent and experienced men in the oil mining regions are shown to be accustomed to act and make large expenditures. And the testimony of some of these witnesses is weakened by the fact that their prior acts in respect of these lands, or others in that vicinity similarly situated, were not in accord with the opinions which they expressed.

After considering all the evidence, we think it is adequately shown that the lands were known to be valuable for oil when the patent was sought and obtained, and by this we mean that the known conditions at that time were such as reasonably to engender the belief that the lands contained oil of such quality and in such quantity as would render its extraction profitable and justify ex-

penditures to that end. See *Diamond Coal Co.* v. *United States*, 233 U. S. 236.

The railroad company places some reliance on the fact that after the presentation of the original selection list and before the substituted one was tendered a special agent of the General Land Office examined the lands and reported them as non-mineral. But there is nothing in this that can help the company. The agent's report was made in another connection and was not considered by the land officers when they approved the selection. It did not relieve the company from showing that the lands selected were not mineral; nor did the company understand that it had any such effect. Mr. Eberlein knew of the report several months before he and other officers of the company became troubled over the proposed oil lease and concluded that, if given publicity, it would endanger the pending selection. Besides, if the report could be considered here, it would be without any real evidential value, for it appears from testimony given by the agent at the hearing that he was not a geologist or familiar with oil mining and that his examination of the lands was at best only superficial.

The company makes the contention that drilling done since the patent was issued has demonstrated that the lands have no value for oil. Assuming, without so deciding, that the contention would help the company if sustained by the evidence, we think it is not sustained. The drilling relied upon was done after 1909 upon lands in the Elk Hills other than those in suit. Several wells were started and not more than three were successful. The three were the only ones that were drilled in favorable locations and to an adequate depth, and they penetrated oil sands of considerable thickness and produced a large quantity of oil, but were shut down for reasons not made clear by the record. They were drilled by an oil company which was controlled by the railroad company.

1. Syllabus.

The other wells failed for reasons which prevent the outcome from having any significance here. In some the drilling was not carried to an adequate depth because the right to proceed was thought to be uncertain by reason of an executive withdrawal of the lands.

We conclude that the application of prior decisions to the case made by the evidence entitles the Government to the relief sought, as was held by the District Court. See *United States* v. *Minor*, 114 U. S. 233; *McCaskill Co.* v. *United States*, 216 U. S. 504; *Diamond Coal Co.* v. *United States, supra; Washington Securities Co.* v. *United States*, 234 U. S. 76.

Decree of Circuit Court of Appeals reversed.
Decree of District Court affirmed.